Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2016

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

Commission file number 1-4801

BARNES GROUP INC.
(Exact name of registrant as specified in its charter)

Delaware		**06-0247840**
(State of incorporation)		**(I.R.S. Employer Identification No.)**
123 Main Street, Bristol, Connecticut		**06010**
(Address of Principal Executive Office)		**(Zip Code)**

(860) 583-7070
Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, $0.01 Par Value	**New York Stock Exchange**

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the voting stock (Common Stock) held by non-affiliates of the registrant as of the close of business on June 30, 2016 was approximately $ 1,661,081,242 based on the closing price of the Common Stock on the New York Stock Exchange on that date. The registrant does not have any non-voting common equity.

The registrant had outstanding 53,823,313 shares of common stock as of February 16, 2017 .

Documents Incorporated by Reference

Portions of the registrant's definitive proxy statement to be delivered to stockholders in connection with the Annual Meeting of Stockholders to be held May 5, 2017 are incorporated by reference into Part III.

Barnes Group Inc.
Index to Form 10-K
Year Ended December 31, 2016

		Page
Part I		
Item 1.	Business	1
Item 1A.	Risk Factors	4
Item 1B.	Unresolved Staff Comments	12
Item 2.	Properties	12
Item 3.	Legal Proceedings	14
Item 4.	Mine Safety Disclosures	14
Part II		
Item 5.	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	15
Item 6.	Selected Financial Data	17
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	18
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	36
Item 8.	Financial Statements and Supplementary Data	37
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	72
Item 9A.	Controls and Procedures	72
Item 9B.	Other Information	73
Part III		
Item 10.	Directors, Executive Officers and Corporate Governance	74
Items 11-14.	Incorporated by Reference to Definitive Proxy Statement	75
Part IV		
Item 15.	Exhibits, Financial Statement Schedules	75
Item 16.	Form 10-K Summary	76

FORWARD-LOOKING STATEMENTS

This Annual Report may contain forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. Forward-looking statements often address our expected future operating and financial performance and financial condition, and often contain words such as "anticipate," "believe," "expect," "plan," "estimate," "project," and similar terms. These forward-looking statements do not constitute guarantees of future performance and are subject to a variety of risks and uncertainties that may cause actual results to differ materially from those expressed in the forward-looking statements. These include, among others: difficulty maintaining relationships with employees, including unionized employees, customers, distributors, suppliers, business partners or governmental entities; failure to successfully negotiate collective bargaining agreements or potential strikes, work stoppages or other similar events; difficulties leveraging market opportunities; changes in market demand for our products and services; rapid technological and market change; the ability to protect intellectual property rights; introduction or development of new products or transfer of work; higher risks in global operations and markets; the impact of intense competition; acts of terrorism, cybersecurity attacks or intrusions that could adversely impact our businesses; uncertainties relating to conditions in financial markets; currency fluctuations and foreign currency exposure; future financial performance of the industries or customers that we serve; our dependence upon revenues and earnings from a small number of significant customers; a major loss of customers; inability to realize expected sales or profits from existing backlog due to a range of factors, including changes in customer sourcing decisions, material changes, production schedules and volumes of specific programs; the impact of government budget and funding decisions; changes in raw material or product prices and availability; integration of acquired businesses; restructuring costs or savings; the continuing impact of prior acquisitions and

divestitures; and any other future strategic actions, including acquisitions, divestitures, restructurings, or strategic business realignments, and our ability to achieve the financial and operational targets set in connection with any such actions; the outcome of pending and future legal, governmental, or regulatory proceedings and contingencies and uninsured claims; future repurchases of common stock; future levels of indebtedness; and numerous other matters of a global, regional or national scale, including those of a political, economic, business, competitive, environmental, regulatory and public health nature; and other risks and uncertainties described in this Annual Report. The Company assumes no obligation to update its forward-looking statements.

PART I

Item 1. Business

BARNES GROUP INC. [1]

Founded in 1857, Barnes Group Inc. (the “Company”) is a global industrial and aerospace manufacturer and service provider, serving a wide range of end markets and customers. The highly engineered products, differentiated industrial technologies, and innovative solutions delivered by Barnes Group are used in far-reaching applications that provide transportation, manufacturing, healthcare products, and technology to the world. Barnes Group’s approximately 5,000 skilled and dedicated employees around the globe are committed to achieving consistent and sustainable profitable growth.

Structure

The Company operates under two global business segments: Industrial and Aerospace. The Industrial segment includes the the Molding Solutions, Nitrogen Gas Products and Engineered Components business units. The Aerospace segment includes the original equipment manufacturer (“OEM”) business and the aftermarket business, which includes maintenance repair and overhaul (“MRO”) services and the manufacture and delivery of aerospace aftermarket spare parts.

In the third quarter of 2016, the Company, through three of its subsidiaries (collectively, the “Purchaser”), completed its acquisition of the molds business of Adval Tech Holding AG and Adval Tech Holdings (Asia) Pte. Ltd. ("FOBOHA"). FOBOHA is headquartered in Haslach, Germany and operates out of three manufacturing facilities located in Germany, Switzerland and China. The Company completed its purchase of the Germany and Switzerland businesses on August 31, 2016. The purchase of the China business required government approval which was granted on September 30, 2016. FOBOHA specializes in the development and manufacture of complex plastic injection molds for packaging, medical, consumer and automotive applications. The Company acquired FOBOHA for an aggregate cash purchase price of CHF 136.3 million ($138.6 million) which was financed using cash on hand and borrowings under the Company's revolving credit facility. The purchase price includes preliminary adjustments under the terms of the Share Purchase Agreement ("SPA"), including approximately CHF 11.3 million ($11.5 million) related to cash acquired, and is subject to post closing adjustments under the terms of the SPA. In connection with the acquisition, the Company recorded $39.8 million of intangible assets and $73.7 million of goodwill. FOBOHA is being integrated into the Industrial Segment, within our Molding Solutions business unit. See Note 2 and Note 5 to the Consolidated Financial Statements.

In the fourth quarter of 2015, the Company completed the acquisition of privately held Priamus System Technologies AG and two of its subsidiaries (collectively, "Priamus") from Growth Finance AG. Priamus, which has approximately 40 employees, is headquartered in Schaffhausen, Switzerland and has direct sales and service offices in the U.S. and Germany. Priamus is a technology leader in the development of advanced process control systems for the plastic injection molding industry and services many of the world's highest quality plastic injection molders in the medical, automotive, consumer goods, electronics and packaging markets. Priamus is being integrated into the Industrial Segment, within our Molding Solutions business unit. See Note 2 of the Consolidated Financial Statements.

In the third quarter of 2015, the Company completed the acquisition of the Thermoplay business ("Thermoplay") by acquiring all of the capital stock of privately held HPE S.p.A., the parent company through which Thermoplay operates. Thermoplay’s headquarters and manufacturing facility are located in Pont-Saint-Martin in Aosta, Italy, with technical service capabilities in China, India, France, Germany, United Kingdom, Portugal, and Brazil. Thermoplay specializes in the design, development, and manufacturing of hot runner systems for plastic injection molding, primarily in the packaging, automotive, and medical end markets. Thermoplay is being integrated into the Industrial Segment, within our Molding Solutions business unit. See Note 2 of the Consolidated Financial Statements.

---

[1] As used in this annual report, “Company,” “Barnes Group,” “we” and “ours” refer to the registrant and its consolidated subsidiaries except where the context requires otherwise, and “Industrial” and “Aerospace” refer to the registrant’s segments, not to separate corporate entities

INDUSTRIAL

Industrial is a global manufacturer of highly-engineered, high-quality precision parts, products and systems for critical applications serving a diverse customer base in end-markets such as transportation, industrial equipment, consumer products, packaging, electronics, medical devices, and energy. Focused on innovative custom solutions, Industrial participates in the design phase of components and assemblies whereby customers receive the benefits of application and systems engineering, new product development, testing and evaluation, and the manufacturing of final products. Products are sold primarily through its direct sales force and global distribution channels. Industrial's Molding Solutions businesses design and manufacture customized hot runner systems, advanced mold cavity sensors and process control systems, and precision high cavitation and cube mold assemblies - collectively, the enabling technologies for many complex plastic injection molding applications. Industrial's Nitrogen Gas Products business manufactures nitrogen gas springs and manifold systems used to precisely control stamping presses. Industrial's Engineered Components businesses manufacture and supply precision mechanical products used in transportation and industrial applications, including mechanical springs, high-precision punched and fine-blanked components, and retaining rings. Engineered Components is equipped to produce many types of highly engineered precision springs, from fine hairsprings for electronics and instruments to large heavy-duty springs for machinery.

Industrial competes with a broad base of large and small companies engaged in the manufacture and sale of engineered products, precision molds, hot runner systems and precision components. Industrial competes on the basis of quality, service, reliability of supply, engineering and technical capability, geographic reach, product breadth, innovation, design, and price. Industrial has manufacturing, distribution and assembly operations in the United States, Brazil, China, Germany, Italy, Mexico, Singapore, Sweden and Switzerland. Industrial also has sales and service operations in the United States, Brazil, Canada, Czech Republic, China/Hong Kong, France, Germany, India, Italy, Japan, Mexico, the Netherlands, Portugal, Singapore, Slovakia, South Africa, South Korea, Spain, Switzerland, Thailand and the United Kingdom. Sales by Industrial to its three largest customers accounted for approximately 11% of its sales in 2016.

AEROSPACE

Aerospace is a global provider of complex fabricated and precision machined components and assemblies for OEM turbine engine, airframe and industrial gas turbine builders, and the military. The Aerospace aftermarket business provides jet engine component MRO services, including services performed under our Component Repair Programs ("CRPs"), for many of the world's major turbine engine manufacturers, commercial airlines and the military. The Aerospace aftermarket activities also include the manufacture and delivery of aerospace aftermarket spare parts, including the revenue sharing programs ("RSPs") under which the Company receives an exclusive right to supply designated aftermarket parts over the life of the related aircraft engine programs.

Aerospace's OEM business supplements the leading jet engine OEM capabilities and competes with a large number of fabrication and machining companies. Competition is based mainly on quality, engineering and technical capability, product breadth, new product introduction, timeliness, service and price. Aerospace's fabrication and machining operations, with facilities in Arizona, Connecticut, Michigan, Ohio, Utah and Singapore, produce critical engine and airframe components through technologically advanced manufacturing processes.

The Aerospace aftermarket business supplements jet engine OEMs' maintenance, repair and overhaul capabilities, and competes with the service centers of major commercial airlines and other independent service companies for the repair and overhaul of turbine engine components. The manufacture and supply of aerospace aftermarket spare parts, including those related to the RSPs, are dependent upon the reliable and timely delivery of high-quality components. Aerospace's aftermarket facilities, located in Connecticut, Ohio and Singapore, specialize in the repair and refurbishment of highly engineered components and assemblies such as cases, rotating life limited parts, rotating air seals, turbine shrouds, vanes and honeycomb air seals. Sales by Aerospace to its three largest customers, General Electric, Rolls-Royce and United Technologies Corporation, accounted for approximately 51% , 13% and 11% of its sales in 2016, respectively. Sales to its next four largest customers in 2016 collectively accounted for approximately 10% of its total sales.

FINANCIAL INFORMATION

The backlog of the Company's orders believed to be firm at the end of 2016 was $ 886 million as compared with $ 764 million at the end of 2015 . Of the 2016 year-end backlog, $ 636 million was attributable to Aerospace and $ 250 million was attributable to Industrial. Approximately 65% of the Company's year-end backlog is scheduled to be shipped during 2017 . The remainder of the Company's backlog is scheduled to be shipped after 2017 .

We have a global manufacturing footprint and a technical service network to service our worldwide customer base. The global economies have a significant impact on the financial results of the business as we have significant operations outside of the United States. For an analysis of our revenue from sales to external customers, operating profit and assets by business segment, as well as revenues from sales to external customers and long-lived assets by geographic area, see Note 19 of the Consolidated Financial Statements. For a discussion of risks attendant to the global nature of our operations and assets, see Item 1A. Risk Factors.

RAW MATERIALS

The principal raw materials used to manufacture our products are various grades and forms of steel, from rolled steel bars, plates and sheets, to high-grade valve steel wires and sheets, various grades and forms (bars, sheets, forgings, castings and powders) of stainless steels, aluminum alloys, titanium alloys, copper alloys, graphite, and iron-based, nickel-based (Inconels) and cobalt-based (Hastelloys) superalloys for complex aerospace applications. Prices for steel, titanium, Inconel, Hastelloys, as well as other specialty materials, have periodically increased due to higher demand and, in some cases, reduction of the availability of materials. If this occurs, the availability of certain raw materials used by us or in products sold by us may be negatively impacted.

RESEARCH AND DEVELOPMENT

We conduct research and development activities in our effort to provide a continuous flow of innovative new products, processes and services to our customers. We also focus on continuing efforts aimed at discovering and implementing new knowledge that significantly improves existing products and services, and developing new applications for existing products and services. Our product development strategy is driven by product design teams and collaboration with our customers, particularly within Industrial's Molding Solutions businesses, as well as within our Aerospace and our other Industrial businesses. Many of the products manufactured by us are custom parts made to customers' specifications. Investments in research and development are important to our long-term growth, enabling us to stay ahead of changing customer and marketplace needs. We spent approximately $ 13 million, $ 13 million and $ 16 million in 2016 , 2015 and 2014 , respectively, on research and development activities.

PATENTS AND TRADEMARKS

Patents and other proprietary rights are critical to certain of our business units, however the Company also holds certain trade secrets and unpatented know-how. We are party to certain licenses of intellectual property and hold numerous patents, trademarks, and trade names that enhance our competitive position. The Company does not believe, however, that any of these licenses, patents, trademarks or trade names is individually significant to the Company or either of our segments. We maintain procedures to protect our intellectual property (including patents and trademarks) both domestically and internationally. Risk factors associated with our intellectual property are discussed in Item 1A. Risk Factors.

EXECUTIVE OFFICERS OF THE COMPANY

For information regarding the Executive Officers of the Company, see Part III, Item 10 of this Annual Report.

ENVIRONMENTAL

Compliance with federal, state, and local laws, as well as those of other countries, which have been enacted or adopted regulating the discharge of materials into the environment or otherwise relating to the protection of the environment has not had a material effect, and is not expected to have a material effect, upon our capital expenditures, earnings, or competitive position.

Our past and present business operations and past and present ownership and operations of real property and the use, sale, storage and handling of chemicals and hazardous products subject us to extensive and changing U.S. federal, state and local environmental laws and regulations, as well as those of other countries, pertaining to the discharge of materials into the environment, enforcement, disposition of wastes (including hazardous wastes), the use, shipping, labeling, and storage of chemicals and hazardous materials, building requirements, or otherwise relating to protection of the environment. We have experienced, and expect to continue to experience, costs to comply with environmental laws and regulations. In addition, new laws and regulations, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination or the imposition of new clean-up requirements could require us to incur costs or become subject to new or increased liabilities that could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We use and generate hazardous substances and wastes in our operations. In addition, many of our current and former properties are or have been used for industrial purposes. Accordingly, we monitor hazardous waste management and applicable environmental permitting and reporting for compliance with applicable laws at our locations in the ordinary course of our business. We may be subject to potential material liabilities relating to any investigation and clean-up of our locations or properties where we delivered hazardous waste for handling or disposal that may be contaminated or which may have been contaminated prior to our purchase, and to claims alleging personal injury.

AVAILABLE INFORMATION

Our Internet address is www.BGInc.com . Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports are available without charge on our website as soon as reasonably practicable after they are filed with, or furnished to, the U.S. Securities and Exchange Commission ("SEC"). In addition, we have posted on our website, and will make available in print to any stockholder who makes a request, our Corporate Governance Guidelines, our Code of Business Ethics and Conduct, and the charters of the Audit Committee, Compensation and Management Development Committee and Corporate Governance Committee (the responsibilities of which include serving as the nominating committee) of the Company's Board of Directors. References to our website addressed in this Annual Report are provided as a convenience and do not constitute, and should not be viewed as, an incorporation by reference of the information contained on, or available through, the website. Therefore, such information should not be considered part of this Annual Report.

Item 1A. Risk Factors

Our business, financial condition or results of operations could be materially adversely affected by any of the following risks. Please note that additional risks not presently known to us may also materially impact our business and operations.

RISKS RELATED TO OUR BUSINESS

We depend on revenues and earnings from a small number of significant customers. Any bankruptcy of or loss of or, cancellation, reduction or delay in purchases by these customers could harm our business. In 2016 , our net sales to General Electric and its subsidiaries accounted for 17% of our total sales and approximately 51% of Aerospace's net sales. Aerospace's second and third largest customers, Rolls-Royce and United Technologies Corporation and its subsidiaries, accounted for 13% and 11% , respectively, of Aerospace net sales in 2016. Approximately 10% of Aerospace's sales in 2016 were to its next four largest customers. Approximately 11% of Industrial's sales in 2016 were to its three largest customers. Some of our success will depend on the business strength and viability of those customers. We cannot assure you that we will be able to retain our largest customers. Some of our customers may in the future reduce their purchases due to economic conditions or shift their purchases from us to our competitors, in-house or to other sources. Some of our long-term sales agreements provide that until a firm order is placed by a customer for a particular product, the customer may unilaterally reduce or discontinue its projected purchases without penalty, or terminate for convenience. The loss of one or more of our largest customers, any reduction, cancellation or delay in sales to these customers (including a reduction in aftermarket volume in our RSPs), our inability to successfully develop relationships with new customers, or future price concessions we make to retain customers could significantly reduce our sales and profitability.

The global nature of our business exposes us to foreign currency fluctuations that may affect our future revenues, debt levels and profitability. We have manufacturing facilities and technical service, sales and distribution centers around the world, and the majority of our foreign operations use the local currency as their functional currency. These include, among others, the Brazilian real, British pound sterling, Canadian dollar, Chinese renminbi, Euro, Japanese yen, Korean won, Mexican peso, Singapore dollar, Swedish krona, Swiss franc and Thai baht. Since our financial statements are denominated in U.S. dollars, changes in currency exchange rates between the U.S. dollar and other currencies expose us to translation risk when the local currency financial statements are translated to U.S. dollars. Changes in currency exchange rates may also expose us to transaction risk. We may buy hedges in certain currencies to reduce or offset our exposure to currency exchange fluctuations; however, these transactions may not be adequate or effective to protect us from the exposure for which they are purchased. We have not engaged in any speculative hedging activities. Currency fluctuations may adversely impact our revenues and profitability in the future.

Our operations depend on our manufacturing, sales, and service facilities and information systems in various parts of the world which are subject to physical, financial, regulatory, environmental, operational and other risks that could disrupt our operations. We have a significant number of manufacturing facilities, technical service, and sales centers both within and outside the U.S. The global scope of our business subjects us to increased risks and uncertainties such as threats

of war, terrorism and instability of governments; and economic, regulatory and legal systems in countries in which we or our customers conduct business.

Customer, supplier and our facilities are located in areas that may be affected by natural disasters, including earthquakes, windstorms and floods, which could cause significant damage and disruption to the operations of those facilities and, in turn, could have a material adverse effect on our business, financial condition, results of operations and cash flows. Additionally, some of our manufacturing equipment and tooling is custom-made and is not readily replaceable. Loss of such equipment or tooling could have a negative impact on our manufacturing business, financial condition, results of operations and cash flows.

Although we have obtained property damage and business interruption insurance, a major catastrophe such as an earthquake, windstorm, flood or other natural disaster at any of our sites, or significant labor strikes, work stoppages, political unrest, or any of the events described above, in any of the areas where we conduct operations could result in a prolonged interruption of our business. Any disruption resulting from these events could cause significant delays in the manufacture or shipment of products or the provision of repair and other services that may result in our loss of sales and customers. Our insurance will not cover all potential risks, and we cannot assure you that we will have adequate insurance to compensate us for all losses that result from any insured risks. Any material loss not covered by insurance could have a material adverse effect on our financial condition, results of operations and cash flows. We cannot assure you that insurance will be available in the future at a cost acceptable to us or at a cost that will not have a material adverse effect on our profitability, net income and cash flows.

The global nature of our operations and assets subject us to additional financial and regulatory risks. We have operations and assets in various parts of the world. In addition, we sell or may in the future sell our products and services to the U.S. and foreign governments and in foreign countries. As a global business, we are subject to complex laws and regulations in the U.S. and other countries in which we operate, and associated risks, including: U.S. imposed embargoes of sales to specific countries; foreign import controls (which may be arbitrarily imposed or enforced); import regulations and duties; export regulations (which require us to comply with stringent licensing regimes); reporting requirements regarding the use of "conflict" minerals mined from certain countries; anti-dumping regulations; price and currency controls; exchange rate fluctuations; dividend remittance restrictions; expropriation of assets; war, civil uprisings and riots; government instability; government contracting requirements including cost accounting standards, including various procurement, security, and audit requirements, as well as requirements to certify to the government compliance with these requirements; the necessity of obtaining governmental approval for new and continuing products and operations; and legal systems or decrees, laws, taxes, regulations, interpretations and court decisions that are not always fully developed and that may be retroactively or arbitrarily applied. We have experienced inadvertent violations of some of these regulations, including export regulations, safety and environmental regulations, regulations prohibiting sales of certain products and product labeling regulations, in the past, none of which has had or, we believe, will have a material adverse effect on our business. However, any significant violations of these or other regulations in the future could result in civil or criminal sanctions, and the loss of export or other licenses which could have a material adverse effect on our business. We are subject to federal and state unclaimed property laws in the ordinary course of business, and are currently undergoing a multi-state unclaimed property audit, the timing and outcome of which cannot be predicted, and we may incur significant professional fees in conjunction with the audit. We may also be subject to unanticipated income taxes, excise duties, import taxes, export taxes, value added taxes, or other governmental assessments, and taxes may be impacted by changes in legislation in the tax jurisdictions in which we operate. In addition, our organizational and capital structure may limit our ability to transfer funds between countries, particularly into the U.S., without incurring adverse tax consequences. Any of these events could result in a loss of business or other unexpected costs that could reduce sales or profits and have a material adverse effect on our financial condition, results of operations and cash flows.

Any disruption or failure in the operation of our information systems, including from conversions or integrations of information technology or reporting systems, could have a material adverse effect on our business, financial condition, results of operations and cash flows. Our information technology (IT) systems are an integral part of our business. We depend upon our IT systems to help process orders, manage inventory, make payments and collect accounts receivable. Our IT systems also allow us to purchase, sell and ship products efficiently and on a timely basis, to maintain cost-effective operations, and to help provide superior service to our customers. We are currently in the process of implementing enterprise resource planning (ERP) platforms across certain of our businesses, and we expect that we will need to continue to improve and further integrate our IT systems, on an ongoing basis in order to effectively run our business. If we fail to successfully manage and integrate our IT systems, including these ERP platforms, it could adversely affect our business or operating results.

Further, in the ordinary course of our business, we store sensitive data, including intellectual property, our proprietary business information and that of our customers, suppliers and business partners, and personally identifiable information of our employees, in our data centers and on our networks. The secure maintenance and transmission of this information is critical to our business operations. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers

or breached due to employee error, malfeasance or other disruptions. Any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, and regulatory penalties, disrupt our operations, and damage our reputation, which could adversely affect our business, revenues and competitive position.

We have significant indebtedness that could affect our operations and financial condition, and our failure to meet certain financial covenants required by our debt agreements may materially and adversely affect our assets, financial position and cash flows. At December 31, 2016 , we had consolidated debt obligations of $501.0 million, representing approximately 30% of our total capital (indebtedness plus stockholders' equity) as of that date. Our level of indebtedness, proportion of variable rate debt obligations and the significant debt servicing costs associated with that indebtedness may adversely affect our operations and financial condition. For example, our indebtedness could require us to dedicate a substantial portion of our cash flows from operations to payments on our debt, thereby reducing the amount of our cash flows available for working capital, capital expenditures, investments in technology and research and development, acquisitions, dividends and other general corporate purposes; limit our flexibility in planning for, or reacting to, changes in the industries in which we compete; place us at a competitive disadvantage compared to our competitors, some of whom have lower debt service obligations and greater financial resources than we do; limit our ability to borrow additional funds; or increase our vulnerability to general adverse economic and industry conditions. In addition, a majority of our debt arrangements require us to maintain certain debt and interest coverage ratios and limit our ability to incur debt, make investments or undertake certain other business activities. These requirements could limit our ability to obtain future financing and may prevent us from taking advantage of attractive business opportunities. Our ability to meet the financial covenants or requirements in our debt arrangements may be affected by events beyond our control, and we cannot assure you that we will satisfy such covenants and requirements. A breach of these covenants or our inability to comply with the restrictions could result in an event of default under our debt arrangements which, in turn, could result in an event of default under the terms of our other indebtedness. Upon the occurrence of an event of default under our debt arrangements, after the expiration of any grace periods, our lenders could elect to declare all amounts outstanding under our debt arrangements, together with accrued interest, to be immediately due and payable. If this were to happen, we cannot assure you that our assets would be sufficient to repay in full the payments due under those arrangements or our other indebtedness or that we could find alternative financing to replace that indebtedness.

Conditions in the worldwide credit markets may limit our ability to expand our credit lines beyond current bank commitments. In addition, our profitability may be adversely affected as a result of increases in interest rates. At December 31, 2016 , we and our subsidiaries had $501.0 million aggregate principal amount of consolidated debt obligations outstanding, of which approximately 59% had interest rates that float with the market (not hedged against interest rate fluctuations). A 100 basis point increase in the interest rate on the floating rate debt in effect at December 31, 2016 would result in an approximate $3.0 million annualized increase in interest expense.

Changes in the availability or price of materials, products and energy resources could adversely affect our costs and profitability. We may be adversely affected by the availability or price of raw materials, products and energy resources, particularly related to certain manufacturing operations that utilize steel, stainless steel, titanium, Inconel, Hastelloys and other specialty materials. The availability and price of raw materials and energy resources may be subject to curtailment or change due to, among other things, new laws or regulations, global economic or political events including strikes, terrorist attacks and war, suppliers' allocations to other purchasers, interruptions in production by suppliers, changes in exchange rates and prevailing price levels. In some instances there are limited sources for raw materials and a limited number of primary suppliers for some of our products for resale. Although we are not dependent upon any single source for any of our principal raw materials or products for resale, and such materials and products have, historically, been readily available, we cannot assure you that such raw materials and products will continue to be readily available. Disruption in the supply of raw materials, products or energy resources or our inability to come to favorable agreements with our suppliers could impair our ability to manufacture, sell and deliver our products and require us to pay higher prices. Any increase in prices for such raw materials, products or energy resources could materially adversely affect our costs and our profitability.

We maintain pension and other postretirement benefit plans in the U.S. and certain international locations. Our costs of providing defined benefit plans are dependent upon a number of factors, such as the rates of return on the plans' assets, exchange rate fluctuations, future governmental regulation, global fixed income and equity prices, and our required and/or voluntary contributions to the plans. Declines in the stock market, prevailing interest rates, declines in discount rates, improvements in mortality rates and rising medical costs may cause an increase in our pension and other postretirement benefit expenses in the future and result in reductions in our pension fund asset values and increases in our pension and other postretirement benefit obligations. These changes have caused and may continue to cause a significant reduction in our net worth and without sustained growth in the pension investments over time to increase the value of the plans' assets, and

depending upon the other factors listed above, we could be required to increase funding for some or all of these pension and postretirement plans.

We carry significant inventories and a loss in net realizable value could cause a decline in our net worth. At December 31, 2016 , our inventories totaled $ 227.8 million . Inventories are valued at the lower of cost or market based on management's judgments and estimates concerning future sales levels, quantities and prices at which such inventories will be sold in the normal course of business. Accelerating the disposal process or incorrect estimates of future sales potential may necessitate future reduction to inventory values. See “Part II - Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Policies”.

We have significant goodwill and an impairment of our goodwill could cause a decline in our net worth. Our total assets include substantial goodwill. At December 31, 2016 , our goodwill totaled $633.4 million. The goodwill results from our prior acquisitions, representing the excess of the purchase price we paid over the net assets of the companies acquired. We assess whether there has been an impairment in the value of our goodwill during each calendar year or sooner if triggering events warrant. If future operating performance at one or more of our reporting units does not meet expectations or fair values fall due to significant stock market declines, we may be required to reflect a non-cash charge to operating results for goodwill impairment. The recognition of an impairment of a significant portion of goodwill would negatively affect our results of operations and total capitalization, the effect of which could be material. See “Part II - Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Policies”.

We may not realize all of the sales expected from our existing backlog or anticipated orders . At December 31, 2016 , we had $ 885.5 million of order backlog, the majority of which related to aerospace OEM customers. There can be no assurances that the revenues projected in our backlog will be realized or, if realized, will result in profits. We consider backlog to be firm customer orders for future delivery. OEM customers may provide projections of components and assemblies that they anticipate purchasing in the future under new and existing programs. Such projections are included in our backlog when they are supported by a long term agreement. Our customers may have the right under certain circumstances or with certain penalties or consequences to terminate, reduce or defer firm orders that we have in backlog. If our customers terminate, reduce or defer firm orders, we may be protected from certain costs and losses, but our sales will nevertheless be adversely affected. Although we strive to maintain ongoing relationships with our customers, there is an ongoing risk that orders may be canceled or rescheduled due to fluctuations in our customers’ business needs or purchasing budgets.

Also, our realization of sales from new and existing programs is inherently subject to a number of important risks and uncertainties, including whether our customers execute the launch of product programs on time, or at all, the number of units that our customers actually produce, the timing of production and manufacturing insourcing decisions made by our customers. In addition, until firm orders are placed, our customers may have the right to discontinue a program or replace us with another supplier at any time without penalty. Our failure to realize sales from new and existing programs could have a material adverse effect on our net sales, results of operations and cash flows.

We may not recover all of our up-front costs related to new or existing programs. New programs may require significant up-front investments for capital equipment, engineering, inventory, design and tooling. As OEMs in the transportation and aerospace industries have looked to suppliers to bear increasing responsibility for the design, engineering and manufacture of systems and components, they have increasingly shifted the financial risk associated with those responsibilities to the suppliers as well. This trend may continue and is most evident in the area of engineering cost reimbursement. We cannot assure you that we will have adequate funds to make such up-front investments or to recover such costs from our customers as part of our product pricing. In the event that we are unable to make such investments, or to recover them through sales or direct reimbursement from our customers, our profitability, liquidity and cash flows may be adversely affected. In addition, we incur costs and make capital expenditures for new program awards based upon certain estimates of production volumes and production complexity. While we attempt to recover such costs and capital expenditures by appropriately pricing our products, the prices of our products are based in part upon planned production volumes. If the actual production is significantly less than planned or significantly more complex than anticipated, we may be unable to recover such costs. In addition, because a significant portion of our overall costs is fixed, declines in our customers’ production levels can adversely affect the level of our reported profits even if our up-front investments are recovered.

We may not realize all of the intangible assets related to the Aerospace aftermarket businesses. We participate in aftermarket Revenue Sharing Programs ("RSPs") under which we receive an exclusive right to supply designated aftermarket parts over the life of the related aircraft engine program to our customer, General Electric. As consideration, we pay participation fees, which are recorded as intangible assets and are recognized as a reduction of sales over the estimated life of the related engine programs which range up to 30 years. Our total investments in participation fees under our RSPs as of

December 31, 2016 equaled $293.7 million, all of which have been paid. At December 31, 2016 , the remaining unamortized balance of these participation fees was $198.0 million.

We entered into Component Repair Programs ("CRPs"), also with General Electric ("GE"), during the fourth quarter of 2013 ("CRP 1"), the second quarter of 2014 ("CRP 2") and the fourth quarter of 2015 ("CRP 3" and, collectively with CRP 1 and CRP 2, the "CRPs"). The CRPs provide for, among other items, the right to sell certain aftermarket component repair services for CFM56, CF6, CF34 and LM engines directly to other customers as one of a few GE licensed suppliers. In addition, the CRPs extend certain existing contracts under which the Company currently provides these services directly to GE.

We agreed to pay $26.6 million as consideration for the rights related to CRP 1. Of this balance, we paid $16.6 million in the fourth quarter of 2013, $9.1 million in the fourth quarter of 2014 and $0.9 million in the first quarter of 2016. We agreed to pay $80.0 million as consideration for the rights related to CRP 2. We paid $41.0 million in the second quarter of 2014, $20.0 million in the fourth quarter of 2014 and $19.0 million in the second quarter of 2015. We agreed to pay $5.2 million as consideration for the rights related to CRP 3. We paid $2.0 million in the fourth quarter of 2015 and $3.2 million was paid in December 2016. We recorded the CRP payments as an intangible asset which is recognized as a reduction of sales over the remaining useful life of these engine programs.

The realizability of each asset is dependent upon future revenues related to the programs' aftermarket parts and services and is subject to impairment testing if circumstances indicate that its carrying amount may not be recoverable. The potential exists that actual revenues will not meet expectations due to a change in market conditions, including, for example, the replacement of older engines with new, more fuel-efficient engines or our ability to maintain market share within the aftermarket business. A shortfall in future revenues may result in the failure to realize the net amount of the investments, which could adversely affect our financial condition and results of operations. In addition, profitability could be impacted by the amortization of the participation fees and licenses, and the expiration of the international tax incentives on these programs. See “Part II - Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Policies”.

We face risks of cost overruns and losses on fixed-price contracts. We sell certain of our products under firm, fixed-price contracts providing for a fixed price for the products regardless of the production or purchase costs incurred by us. The cost of producing products may be adversely affected by increases in the cost of labor, materials, fuel, outside processing, overhead and other factors, including manufacturing inefficiencies. Increased production costs may result in cost overruns and losses on contracts.

The departure of existing management and key personnel, a shortage of skilled employees or a lack of qualified sales professionals could materially affect our business, operations and prospects. Our executive officers are important to the management and direction of our business. Our future success depends, in large part, on our ability to retain or replace these officers and other capable management personnel. Although we believe we will be able to attract and retain talented personnel and replace key personnel should the need arise, our inability to do so could have a material adverse effect on our business, financial condition, results of operations or cash flows. Because of the complex nature of many of our products and services, we are generally dependent on an educated and highly skilled workforce, including, for example, our engineering talent. In addition, there are significant costs associated with the hiring and training of sales professionals. We could be adversely affected by a shortage of available skilled employees or the loss of a significant number of our sales professionals.

If we are unable to protect our intellectual property rights effectively, our financial condition and results of operations could be adversely affected. We own or are licensed under various intellectual property rights, including patents, trademarks and trade secrets. Our intellectual property rights may not be sufficiently broad or otherwise may not provide us a significant competitive advantage, and patents may not be issued for pending or future patent applications owned by or licensed to us. In addition, the steps that we have taken to maintain and protect our intellectual property may not prevent it from being challenged, invalidated, circumvented or designed-around, particularly in countries where intellectual property rights are not highly developed or protected. In some circumstances, enforcement may not be available to us because an infringer has a dominant intellectual property position or for other business reasons, or countries may require compulsory licensing of our intellectual property. We also rely on nondisclosure and noncompetition agreements with employees, consultants and other parties to protect, in part, confidential information, trade secrets and other proprietary rights. There can be no assurance that these agreements will adequately protect these intangible assets and will not be breached, that we will have adequate remedies for any breach, or that others will not independently develop substantially equivalent proprietary information. Our failure to obtain or maintain intellectual property rights that convey competitive advantage, adequately protect our intellectual property or detect or prevent circumvention or unauthorized use of such property and the cost of enforcing our intellectual property rights could adversely impact our competitive position, financial condition and results of operations.

Any product liability, warranty, contractual or other claims in excess of insurance may adversely affect our financial condition. Our operations expose us to potential product liability risks that are inherent in the design, manufacture and sale of our products and the products we buy from third parties and sell to our customers, or to potential warranty, contractual or other claims. For example, we may be exposed to potential liability for personal injury, property damage or death as a result of the failure of an aircraft component designed, manufactured or sold by us, or the failure of an aircraft component that has been serviced by us or of the components themselves. While we have liability insurance for certain risks, our insurance may not cover all liabilities. Additionally, insurance coverage may not be available in the future at a cost acceptable to us. Any material liability not covered by insurance or for which third-party indemnification is not available for the full amount of the loss could have a material adverse effect on our financial condition, results of operations and cash flows.

From time to time, we receive product warranty claims, under which we may be required to bear costs of repair or replacement of certain of our products. Warranty claims may range from individual customer claims to full recalls of all products in the field. We vigorously defend ourselves in connection with these matters. We cannot, however, assure you that the costs, charges and liabilities associated with these matters will not be material, or that those costs, charges and liabilities will not exceed any amounts reserved for them in our consolidated financial statements.

Our business, financial condition, results of operations and cash flows could be adversely impacted by strikes or work stoppages. Approximately 16% of our U.S. employees are covered by collective bargaining agreements and more than 37% of our non-U.S. employees are covered by collective bargaining agreements or statutory trade union agreements. The Company has a national collective bargaining agreement ("CBA") with certain unionized employees at the Bristol, Connecticut and Corry, Pennsylvania facilities of the Associated Spring business unit, covering approximately 250 employees. The current CBA will expire in August 2017, at which time we will negotiate a successor agreement. The local collective bargaining agreement for the Milwaukee, Wisconsin facility of the Associated Spring business unit will expire on June 30, 2017, at which time we will negotiate a successor agreement. In addition, we have annual negotiations in Brazil and Mexico and, collectively, these negotiations cover approximately 300 employees in those two countries. In 2016, we also completed negotiations resulting in wage increases at four locations in our Industrial segment and one location in our Aerospace segment, collectively covering a total of approximately 900 employees.

Although we believe that our relations with our employees are good, we cannot assure you that we will be successful in negotiating new collective bargaining agreements or that such negotiations will not result in significant increases in the cost of labor, including healthcare, pensions or other benefits. Any potential strikes or work stoppages, and the resulting adverse impact on our relationships with customers, could have a material adverse effect on our business, financial condition, results of operations or cash flows. Similarly, a protracted strike or work stoppage at any of our major customers, suppliers or other vendors could materially adversely affect our business.

Changes in taxation requirements could affect our financial results. Our products are subject to import and excise duties and/or sales or value-added taxes in many jurisdictions in which we operate. Increases in indirect taxes could affect our products' affordability and therefore reduce our sales. We are also subject to income tax in numerous jurisdictions in which we generate revenues. Changes in tax laws, tax rates or tax rulings may have a significant adverse impact on our effective tax rate. Among other things, our tax liabilities are affected by the mix of pretax income or loss among the tax jurisdictions in which we operate and the repatriation of foreign earnings to the U.S. Further, during the ordinary course of business, we are subject to examination by the various tax authorities of the jurisdictions in which we operate which could result in an unanticipated increase in taxes. Potential tax reform discussed by the new U.S. administration, such as reducing the corporate income tax rate or changing the repatriation and taxation of foreign earnings, may impact income tax expenses, deferred tax assets in the U.S. and tax liability balances.

Changes in accounting guidance could affect our financial results. New accounting guidance that may become applicable to us from time to time, or changes in the interpretations of existing guidance, could have a significant effect on our reported results for the affected periods. For example, the Financial Accounting Standards Board issued a new accounting standard for revenue recognition in May 2014 - Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers (Topic 606)". Although we are currently in the process of evaluating the impact of ASU 2014-09 on our consolidated financial statements, it is expected to change the way we account for certain of our sales transactions and reported backlog. Adoption of the standard could have a material impact on our financial statements and may retroactively affect the accounting treatment of transactions completed before adoption. See "Part II - Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations - Other Matters" for additional disclosure related to the Company's planned adoption of Topic 606.

RISKS RELATED TO THE INDUSTRIES IN WHICH WE OPERATE

We operate in highly competitive markets. We may not be able to compete effectively with our competitors, and competitive pressures could adversely affect our business, financial condition and results of operations. Our two global business segments compete with a number of larger and smaller companies in the markets we serve. Some of our competitors have greater financial, production, research and development, or other resources than we do. Within Aerospace, certain of our OEM customers compete with our repair and overhaul business. Some of our OEM customers in the aerospace industry also compete with us where they have the ability to manufacture the components and assemblies that we supply to them but have chosen, for capacity limitations, cost considerations or other reasons, to outsource the manufacturing to us. Our customers award business based on, among other things, price, quality, reliability of supply, service, technology and design. Our competitors' efforts to grow market share could exert downward pressure on our product pricing and margins. Our competitors may also develop products or services, or methods of delivering those products or services that are superior to our products, services or methods. Our competitors may adapt more quickly than us to new technologies or evolving customer requirements. We cannot assure you that we will be able to compete successfully with our existing or future competitors. Our ability to compete successfully will depend, in part, on our ability to continue make investments to innovate and manufacture the types of products demanded by our customers, and to reduce costs by such means as reducing excess capacity, leveraging global purchasing, improving productivity, eliminating redundancies and increasing production in low-cost countries. We have invested, and expect to continue to invest, in increasing our manufacturing footprint in low-cost countries. We cannot assure you that we will have sufficient resources to continue to make such investments or that we will be successful in maintaining our competitive position. If we are unable to differentiate our products or maintain a low-cost footprint, we may lose market share or be forced to reduce prices, thereby lowering our margins. Any such occurrences could adversely affect our financial condition, results of operations and cash flows.

The industries in which we operate have been experiencing consolidation, both in our suppliers and the customers we serve. Supplier consolidation is in part attributable to OEMs more frequently awarding long-term sole source or preferred supplier contracts to the most capable suppliers in an effort to reduce the total number of suppliers from whom components and systems are purchased. If consolidation of our existing competitors occurs, we would expect the competitive pressures we face to increase, and we cannot assure you that our business, financial condition, results of operations or cash flows will not be adversely impacted as a result of consolidation by our competitors or customers.

Original equipment manufacturers in the aerospace and transportation industries have significant pricing leverage over suppliers and may be able to achieve price reductions over time. Additionally, we may not be successful in our efforts to raise prices on our customers. There is substantial and continuing pressure from OEMs in the transportation industries, including automotive and aerospace, to reduce the prices they pay to suppliers. We attempt to manage such downward pricing pressure, while trying to preserve our business relationships with our customers, by seeking to reduce our production costs through various measures, including purchasing raw materials and components at lower prices and implementing cost-effective process improvements. Our suppliers have periodically resisted, and in the future may resist, pressure to lower their prices and may seek to impose price increases. If we are unable to offset OEM price reductions, our profitability and cash flows could be adversely affected. In addition, OEMs have substantial leverage in setting purchasing and payment terms, including the terms of accelerated payment programs under which payments are made prior to the account due date in return for an early payment discount. OEMs can unexpectedly change their purchasing policies or payment practices, which could have a negative impact on our short-term working capital.

Demand for our defense-related products depends on government spending. A portion of Aerospace's sales is derived from the military market, including single-sourced and dual-sourced sales. The military market is largely dependent upon government budgets and is subject to governmental appropriations. Although multi-year contracts may be authorized in connection with major procurements, funds are generally appropriated on a fiscal year basis even though a program may be expected to continue for several years. Consequently, programs are often only partially funded and additional funds are committed only as further appropriations are made. We cannot assure you that maintenance of or increases in defense spending will be allocated to programs that would benefit our business. Moreover, we cannot assure you that new military aircraft programs in which we participate will enter full-scale production as expected. A decrease in levels of defense spending or the government's termination of, or failure to fully fund, one or more of the contracts for the programs in which we participate could have a material adverse effect on our financial position and results of operations.

The aerospace industry is highly regulated. Complications related to aerospace regulations may adversely affect the Company. A substantial portion of our income is derived from our aerospace businesses. The aerospace industry is highly regulated in the U.S. by the Federal Aviation Administration, or FAA, and in other countries by similar regulatory agencies. We must be certified by these agencies and, in some cases, by individual OEMs in order to engineer and service systems and components used in specific aircraft models. If material authorizations or approvals were delayed, revoked or suspended, our

business could be adversely affected. New or more stringent governmental regulations may be adopted, or industry oversight heightened, in the future, and we may incur significant expenses to comply with any new regulations or any heightened industry oversight.

Fluctuations in jet fuel and other energy prices may impact our operating results. Fuel costs constitute a significant portion of operating expenses for companies in the aerospace industry. Fluctuations in fuel costs could impact levels and frequency of aircraft maintenance and overhaul activities, and airlines' decisions on maintaining, deferring or canceling new aircraft purchases, in part based on the value associated with new fuel efficient technologies. Widespread disruption to oil production, refinery operations and pipeline capacity in certain areas of the U.S. can impact the price of jet fuel significantly. Conflicts in the Middle East, an important source of oil for the U.S. and other countries where we do business, cause prices for fuel to be volatile. Because we and many of our customers are in the aerospace industry, these fluctuations could have a material adverse effect on our financial condition or results of operations.

Our products and services may be rendered obsolete by new products, technologies and processes. Our manufacturing operations focus on highly engineered components which require extensive engineering and research and development time. Our competitive advantage may be adversely impacted if we cannot continue to introduce new products ahead of our competition, or if our products are rendered obsolete by other products or by new, different technologies and processes. The success of our new products will depend on a number of factors, including innovation, customer acceptance, the efficiency of our suppliers in providing materials and component parts, and the performance and quality of our products relative to those of our competitors. We cannot predict the level of market acceptance or the amount of market share our new products will achieve. Additionally, we may face increased or unexpected costs associated with new product introduction including the use of additional resources such as personnel. We cannot assure that we will not experience new product introduction delays in the future.

RISKS RELATED TO RESTRUCTURING, ACQUISITIONS, JOINT VENTURES AND DIVESTITURES

Our restructuring actions could have long-term adverse effects on our business. From time to time, we have implemented restructuring activities across our businesses to adjust our cost structure, and we may engage in similar restructuring activities in the future. We may not achieve expected cost savings from workforce reductions or restructuring activities and actual charges, costs and adjustments due to these actions may vary materially from our estimates. Our ability to realize anticipated cost savings, synergies and revenue enhancements may be affected by a number of factors, including the following: our ability to effectively eliminate duplicative back office overhead and overlapping sales personnel, rationalize manufacturing capacity, synchronize information technology systems, consolidate warehousing and other facilities and shift production to more economical facilities; significant cash and non-cash integration and implementation costs or charges in order to achieve those cost savings, which could offset any such savings and other synergies resulting from our acquisitions or divestitures; and our ability to avoid labor disruption in connection with these activities. In addition, delays in implementing planned restructuring activities or other productivity improvements may diminish the expected operational or financial benefits.

Our acquisition and other strategic initiatives may not be successful. We have made a number of acquisitions in the past, including most recently the acquisition of the FOBOHA business, and we anticipate that we may, from time to time, acquire additional businesses, assets or securities of companies, and enter into joint ventures and other strategic relationships that we believe would provide a strategic fit with our businesses. These activities expose the Company to a number of risks and uncertainties, the occurrence of any of which could materially adversely affect our business, cash flows, financial condition and results of operations. A portion of the industries that we serve are mature industries. As a result, our future growth may depend in part on the successful acquisition and integration of acquired businesses into our existing operations. We may not be able to identify and successfully negotiate suitable acquisitions, obtain financing for future acquisitions on satisfactory terms, obtain regulatory approvals or otherwise complete acquisitions in the future.

We could have difficulties integrating acquired businesses with our existing operations. Difficulties of integration can include coordinating and consolidating separate systems, integrating the management of the acquired business, retaining market acceptance of acquired products and services, maintaining employee morale and retaining key employees, and implementing our enterprise resource planning systems and operational procedures and disciplines. Any such difficulties may make it more difficult to maintain relationships with employees, customers, business partners and suppliers. In addition, even if integration is successful, the financial performance of acquired business may not be as expected and there can be no assurance we will realize anticipated benefits from our acquisitions. We cannot assure you that we will effectively assimilate the business or product offerings of acquired companies into our business or product offerings or realize anticipated operational synergies. In connection with the integration of acquired operations or the conduct of our overall business strategies, we may periodically restructure our businesses and/or sell assets or portions of our business. Integrating the operations and personnel of acquired

companies into our existing operations may result in difficulties, significant expense and accounting charges, disrupt our business or divert management's time and attention.

Acquisitions involve numerous other risks, including potential exposure to unknown liabilities of acquired companies and the possible loss of key employees and customers of the acquired business. Certain of the acquisition agreements by which we have acquired businesses require the former owners to indemnify us against certain liabilities related to the business operations before we acquired it. However, the liability of the former owners is limited and certain former owners may be unable to meet their indemnification responsibilities. We cannot assure you that these indemnification provisions will protect us fully or at all, and as a result we may face unexpected liabilities that adversely affect our financial condition. In connection with acquisitions or joint venture investments outside the U.S., we may enter into derivative contracts to purchase foreign currency in order to hedge against the risk of foreign currency fluctuations in connection with such acquisitions or joint venture investments, which subjects us to the risk of foreign currency fluctuations associated with such derivative contracts. Additionally, our final determinations and appraisals of the fair value of assets acquired and liabilities assumed in our acquisitions may vary materially from earlier estimates. We cannot assure you that the fair value of acquired businesses will remain constant.

We continually assess the strategic fit of our existing businesses and may divest or otherwise dispose of businesses that are deemed not to fit with our strategic plan or are not achieving the desired return on investment, and we cannot be certain that our business, operating results and financial condition will not be materially and adversely affected. A successful divestiture depends on various factors, including our ability to effectively transfer liabilities, contracts, facilities and employees to any purchaser, identify and separate the intellectual property to be divested from the intellectual property that we wish to retain, reduce fixed costs previously associated with the divested assets or business, and collect the proceeds from any divestitures. In addition, if customers of the divested business do not receive the same level of service from the new owners, this may adversely affect our other businesses to the extent that these customers also purchase other products offered by us. All of these efforts require varying levels of management resources, which may divert our attention from other business operations. If we do not realize the expected benefits or synergies of any divestiture transaction, our consolidated financial position, results of operations and cash flows could be negatively impacted. In addition, divestitures of businesses involve a number of risks, including significant costs and expenses, the loss of customer relationships, and a decrease in revenues and earnings associated with the divested business. Furthermore, divestitures potentially involve significant post-closing separation activities, which could involve the expenditure of material financial resources and significant employee resources. Any divestiture may result in a dilutive impact to our future earnings if we are unable to offset the dilutive impact from the loss of revenue associated with the divestiture, as well as significant write-offs, including those related to goodwill and other intangible assets, which could have a material adverse effect on our results of operations and financial condition.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Number of Facilities - Owned

Location	Industrial	Aerospace	Other	Total
Manufacturing:				
North America	6	5	0	11
Europe	9	0	0	9
Asia	1	0	0	1
Central and Latin America	2	0	0	2
	18	5	0	23
Non-Manufacturing:				
North America	0	0	1 *	1
Europe	2	0	0	2
	2	0	1	3

* The Company's Corporate office

Number of Facilities - Leased

Location	Industrial	Aerospace	Other	Total
Manufacturing:				
North America	2	2	0	4
Europe	3	0	0	3
Asia	5	5	0	10
	10	7	0	17
Non-Manufacturing:				
North America	8	2	1 **	11
Europe	13	1	0	14
Asia	22	0	0	22
Central and Latin America	4	0	0	4
	47	3	1	51

** Industrial segment headquarters and certain Shared Services groups.

Item 3. Legal Proceedings

In November 2016, the Company's previously disclosed arbitration with Triumph Actuation Systems - Yakima, LLC ("Triumph") was concluded. The Company was awarded $9.2 million, plus interest on the judgment of $1.4 million, which amounts were received on January 3, 2017. The outcome did not have a material impact on the Company's consolidated financial position, liquidity or consolidated results of operations.

In addition, we are subject to litigation from time to time in the ordinary course of business and various other suits, proceedings and claims are pending against us and our subsidiaries. While it is not possible to determine the ultimate disposition of each of these proceedings and whether they will be resolved consistent with our beliefs, we expect that the outcome of such proceedings, individually or in the aggregate, will not have a material adverse effect on our financial condition or results of operations.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

(a) Market Information

The Company's common stock is traded on the New York Stock Exchange under the symbol "B". The following table sets forth, for the periods indicated, the low and high sales intra-day trading price per share, as reported by the New York Stock Exchange, and dividends declared and paid.

	2016		
	Low	High	Dividends
Quarter ended March 31	**$ 30.07**	**$ 35.81**	**$ 0.12**
Quarter ended June 30	**31.13**	**37.75**	**0.13**
Quarter ended September 30	**32.55**	**41.86**	**0.13**
Quarter ended December 31	**37.88**	**49.90**	**0.13**

	2015		
	Low	High	Dividends
Quarter ended March 31	$ 33.75	$ 41.00	$ 0.12
Quarter ended June 30	38.75	41.74	0.12
Quarter ended September 30	35.33	41.78	0.12
Quarter ended December 31	33.00	39.74	0.12

Stockholders

As of February 14, 2017, there were approximately 3,239 holders of record of the Company's common stock. A significant number of the outstanding shares of common stock which are beneficially owned by individuals or entities are registered in the name of a nominee of The Depository Trust Company, a securities depository for banks and brokerage firms. The Company believes that there are approximately 18,774 beneficial owners of its common stock.

Dividends

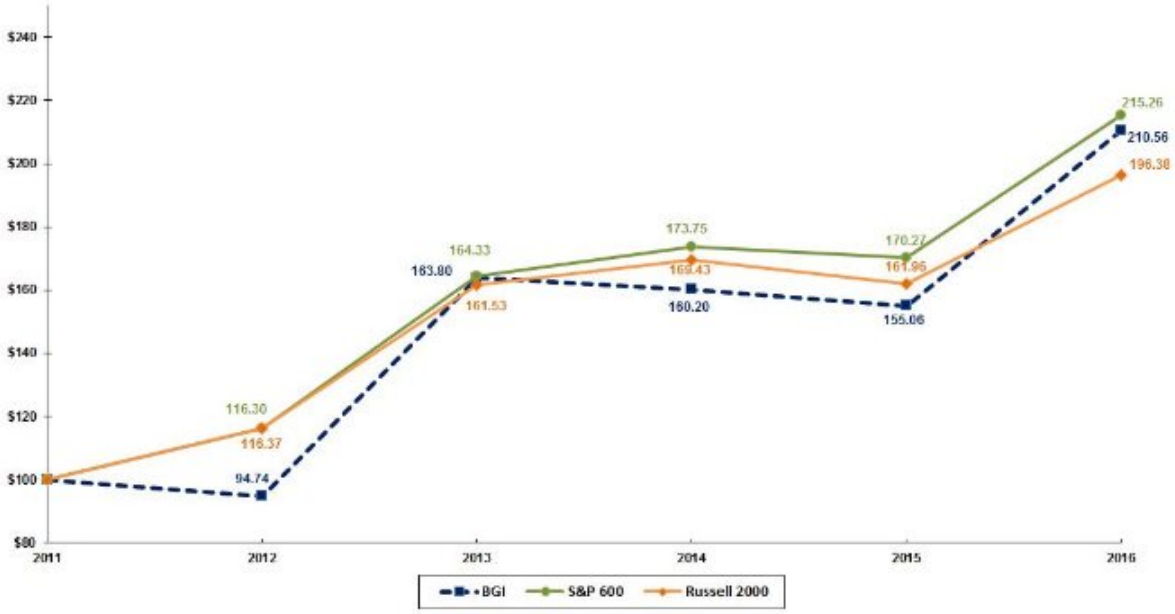
Payment of future dividends will depend upon the Company's financial condition, results of operations and other factors deemed relevant by the Company's Board of Directors, as well as any limitations resulting from financial covenants under the Company's credit facilities or debt indentures. See the table above for dividend information for 2016 and 2015 .

Securities Authorized for Issuance Under Equity Compensation Plans

For information regarding Securities Authorized for Issuance Under Equity Compensation Plans, see Part III, Item 12 of this Annual Report.

Performance Graph

A stock performance graph based on cumulative total returns (price change plus reinvested dividends) for $100 invested in Barnes Group, Inc. ("BGI") on December 31, 2011 is set forth below.



	2011	2012	2013	2014	2015	2016
BGI	$100.00	$94.74	$163.80	$160.20	$155.06	$210.56
S&P 600	$100.00	$116.30	$164.33	$173.75	$170.27	$215.26
Russell 2000	$100.00	$116.37	$161.53	$169.43	$161.96	$196.38

The performance graph does not include a published industry or line-of-business index or peer group of similar issuers because the Company is in multiple lines of business and does not believe a meaningful published index or peer group can be reasonably identified. Accordingly, as permitted by SEC rules, the graph includes the S&P 600 Small Cap Index and the Russell 2000 Index, which are comprised of issuers with generally similar market capitalizations to that of the Company.

(c) Issuer Purchases of Equity Securities

Period	Total Number of Shares (or Units) Purchased	Average Price Paid Per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs (2)
October 1-31, 2016	100	$ 40.55	—	4,573,798
November 1-30, 2016	124,792	$ 38.95	124,792	4,449,006
December 1-31, 2016	—	$ —	—	4,449,006
Total	124,892 (1)	$ 38.95	124,792	

(1) Other than 124,792 shares purchased in the fourth quarter of 2016, which were purchased as part of the Company's 2011 Program (defined below), all acquisitions of equity securities during the fourth quarter of 2016 were the result of the operation of the terms of the Company's stockholder-approved equity compensation plans and the terms of the equity rights granted pursuant to those plans to pay for the related income tax upon issuance of shares. The purchase price of a share of stock used for tax withholding is the market price on the date of issuance.

(2) The program was publicly announced on October 20, 2011 (the "2011 Program") authorizing repurchase of up to 5.0 million shares of common stock. At December 31, 2015, 1.1 million shares of common stock had not been purchased under the 2011 Program. On February 10, 2016, the Board of Directors of the Company increased the number of shares authorized for repurchase under the 2011 Program by 3.9 million shares of common stock (5.0 million authorized, in total). The 2011 Program permits open market purchases, purchases under a Rule 10b5-1 trading plan and privately negotiated transactions.

Item 6. Selected Financial Data

	2016 [5]	2015 [6]	2014	2013 [7][9]	2012 [8][9]
Per common share [1]					
Income from continuing operations					
Basic	**$ 2.50**	$ 2.21	$ 2.20	$ 1.34	$ 1.46
Diluted	**2.48**	2.19	2.16	1.31	1.44
Net income					
Basic	**2.50**	2.21	2.16	5.02	1.74
Diluted	**2.48**	2.19	2.12	4.92	1.72
Dividends declared and paid	**0.51**	0.48	0.45	0.42	0.40
Stockholders' equity (at year-end)	**21.72**	20.94	20.40	21.17	14.76
Stock price (at year-end)	**47.42**	35.39	37.01	38.31	22.46
For the year *(in thousands)*					
Net sales	**$ 1,230,754**	$ 1,193,975	$ 1,262,006	$ 1,091,566	$ 928,780
Operating income	**192,178**	168,396	179,974	123,201	107,131
As a percent of net sales	**15.6%**	14.1%	14.3%	11.3%	11.5%
Income from continuing operations	**$ 135,601**	$ 121,380	$ 120,541	$ 72,321	$ 79,830
As a percent of net sales	**11.0%**	10.2%	9.6%	6.6%	8.6%
Net income	**$ 135,601**	$ 121,380	$ 118,370	$ 270,527	$ 95,249
As a percent of net sales	**11.0%**	10.2%	9.4%	24.8%	10.3%
As a percent of average stockholders' equity [2]	**11.6%**	10.7%	10.3%	28.3%	12.6%
Depreciation and amortization	**$ 80,154**	$ 78,242	$ 81,395	$ 65,052	$ 57,360
Capital expenditures	**47,577**	45,982	57,365	57,304	37,787
Weighted average common shares outstanding – basic	**54,191**	55,028	54,791	53,860	54,626
Weighted average common shares outstanding – diluted	**54,631**	55,513	55,723	54,973	55,224
Year-end financial position *(in thousands)*					
Working capital	**$ 306,609**	$ 359,038	$ 323,306	$ 276,878	$ 418,645
Goodwill	**633,436**	587,992	594,949	649,697	579,905
Other intangible assets, net	**522,258**	528,322	554,694	534,293	383,972
Property, plant and equipment, net	**334,489**	308,856	299,435	302,558	233,097
Total assets	**2,137,539**	2,061,866	2,073,885	2,123,673	1,868,596
Long-term debt and notes payable	**500,954**	509,906	504,734	547,424	646,613
Stockholders' equity	**1,168,358**	1,127,753	1,111,793	1,141,414	800,118
Debt as a percent of total capitalization [3]	**30.0%**	31.1%	31.2%	32.4%	44.7%
Statistics					
Employees at year-end [4]	**5,036**	4,735	4,515	4,331	3,795

(1) Income from continuing operations and net income per common share are based on the weighted average common shares outstanding during each year. Stockholders' equity per common share is calculated based on actual common shares outstanding at the end of each year.
(2) Average stockholders' equity is calculated based on the month-end stockholders equity balances between December 31, 2015 and December 31, 2016 (13-month average).
(3) Debt includes all interest-bearing debt and total capitalization includes interest-bearing debt and stockholders' equity.
(4) The number of employees at each year-end includes employees of continuing operations and excludes prior employees of discontinued operations.
(5) During 2016, the Company completed the acquisition of FOBOHA. The results of FOBOHA, from the acquisition on August 31, 2016, have been included within the Company's Consolidated Financial Statements for the period ended December 31, 2016.
(6) During 2015, the Company completed the acquisitions of Thermoplay and Priamus. The results of Thermoplay and Priamus, from their acquisitions on August 7, 2015 and October 1, 2015, respectively, have been included within the Company's Consolidated Financial Statements for the period ended December 31, 2015.
(7) During 2013, the Company completed the acquisition of the Männer Business. The results of the Männer Business, from the acquisition on October 31, 2013, have been included within the Company's Consolidated Financial Statements for the period ended December 31, 2013.
(8) During 2012, the Company completed the acquisition of Synventive. The results of Synventive, from the acquisition on August 27, 2012, have been included within the Company's Consolidated Financial Statements for the period ended December 31, 2012.
(9) During 2013, the Company sold the BDNA business within the segment formerly referred to as Distribution. The results of the BDNA business, including any (loss) gain on the sale of business, have been reported through discontinued operations during the respective periods.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion in conjunction with our consolidated financial statements and related notes in this Annual Report on Form 10-K. In addition to historical information, this discussion contains forward-looking statements that involve risks, uncertainties, and assumptions that could cause actual results to differ materially from our expectations. Factors that could cause such differences include those described in the section titled "Risk Factors" and elsewhere in this report. We undertake no obligation to update any of the forward-looking statements.

OVERVIEW

2016 Highlights

Barnes Group Inc. (the "Company") achieved sales of $1,230.8 million in 2016, an increase of $ 36.8 million, or 3.1% , from 2015. Acquired businesses contributed incremental sales of $ 47.4 million during 2016. Organic sales (net sales excluding both foreign currency and acquisition impacts) decreased by $1.1 million, or 0.1% , with an increase of 0.5% and a decrease of 1.3% within the Industrial and Aerospace segments, respectively. Sales in the Industrial segment were impacted by changes in foreign currency which decreased sales by approximately $ 9.6 million as the U.S. dollar strengthened against foreign currencies.

Operating income increased 14.1% from $168.4 million in 2015 to $192.2 million in 2016 and operating margin increased from 14.1% in 2015 to 15.6% in 2016. Operating income was impacted by improved productivity within Industrial and the profit contributions of the incremental sales generated at our recently acquired businesses, partially offset by unfavorable pricing within both segments. Operating income during 2016 and 2015 included $2.3 million and $2.6 million of short-term purchase accounting adjustments, respectively, related to recent business acquisitions. Operating income in 2015 included a $9.9 million lump-sum pension settlement charge and $4.2 million of charges related to certain workforce reductions and restructuring charges.

The Company focused on profitable sales growth both organically and through acquisition, in addition to productivity improvements, as key strategic objectives in 2016. Management continued its focus on cash flow and working capital management in 2016 and generated $217.6 million in cash flow from operations.

Business Transformation

Acquisitions and strategic relationships with our customers have been a key growth driver for the Company, and we continue to seek alliances which foster long-term business relationships. These acquisitions have allowed us to extend into new or adjacent markets, expand our geographic reach, and commercialize new products, processes and services. The Company continually evaluates its business portfolio to optimize product offerings and maximize value. We have significantly transformed our business following our entrance into the plastic injection molding market.

In the third quarter of 2016, the Company, through three of its subsidiaries (collectively, the "Purchaser"), completed its acquisition of the molds business of Adval Tech Holding AG and Adval Tech Holdings (Asia) Pte. Ltd. ("FOBOHA"). FOBOHA is headquartered in Haslach, Germany and operates out of three manufacturing facilities located in Germany, Switzerland and China. The Company completed its purchase of the Germany and Switzerland businesses on August 31, 2016. The purchase of the China business required government approval which was granted on September 30, 2016. FOBOHA specializes in the development and manufacture of complex plastic injection molds for packaging, medical, consumer and automotive applications. The Company acquired FOBOHA for an aggregate cash purchase price of CHF 136.3 million ($138.6 million) which was financed using cash on hand and borrowings under the Company's revolving credit facility. The purchase price includes preliminary adjustments under the terms of the Share Purchase Agreement ("SPA"), including approximately CHF 11.3 million ($11.5 million) related to cash acquired, and is subject to post closing adjustments under the terms of the SPA. In connection with the acquisition, the Company recorded $39.8 million of intangible assets and $73.7 million of goodwill. See Note 2 and Note 5 to the Consolidated Financial Statements.

In the fourth quarter of 2015, the Company, itself and through two of its subsidiaries, completed the acquisition of privately held Priamus System Technologies AG and two of its subsidiaries (collectively, "Priamus") from Growth Finance AG. Priamus, which has approximately 40 employees, is headquartered in Schaffhausen, Switzerland and has direct sales and service offices in the U.S. and Germany. Priamus is a technology leader in the development of advanced process control systems for the plastic injection molding industry and services many of the world's highest quality plastic injection molders in the medical, automotive, consumer goods, electronics and packaging markets. Priamus has been integrated into our Industrial

segment. The Company acquired Priamus for an aggregate cash purchase price of CHF 9.9 million ($10.1 million) which was financed using cash on hand and borrowings under the Company's revolving credit facility. The purchase price includes adjustments under the terms of the Share Purchase Agreement, including CHF 1.6 million ($1.6 million) related to cash acquired. See Note 2 of the Consolidated Financial Statements.

In the third quarter of 2015, the Company, through one of its subsidiaries, completed the acquisition of the Thermoplay business ("Thermoplay") by acquiring all of the capital stock of privately held HPE S.p.A., the parent company through which Thermoplay operates ("HPE"). Thermoplay's headquarters and manufacturing facility are located in Pont-Saint-Martin in Aosta, Italy, with technical service capabilities in China, India, France, Germany, United Kingdom, Portugal, and Brazil. Thermoplay, which has been integrated into our Industrial segment, specializes in the design, development, and manufacturing of hot runner solutions for plastic injection molding, primarily in the packaging, automotive, and medical end markets. The Company acquired Thermoplay for an aggregate cash purchase price of €58.1 million ($63.7 million), pursuant to the terms of the Sale and Purchase Agreement ("SPA"), which was financed using cash on hand and borrowings under the Company's revolving credit facility. The purchase price includes adjustments under the terms of the SPA, including €17.1 million ($18.7 million) related to cash acquired. See Note 2 of the Consolidated Financial Statements.

Management Objectives

Management focused on three key strategic enablers during 2016: deployment of the Barnes Enterprise System, accelerating innovation and maturing the talent management system, which, in combination, are expected to generate long-term value for the Company's stockholders and our customers. The Company's strategies for growth include both organic growth from new products, processes, systems, services, markets and customers, and growth from acquisitions. The Company's strategies for profitability include employee engagement and empowerment to drive productivity and process initiatives, such as the application of new technologies, automation and innovation, intensified focus on intellectual property as a core differentiator. A key component of the Company's culture is the Barnes Enterprise System (BES), the Company's operating system, which drives alignment and fosters continuous improvement, collaboration and innovation throughout the global organization.

Our Business

The Company consists of two operating segments: Industrial and Aerospace.

Key Performance Indicators

Management evaluates the performance of its reportable segments based on the sales, operating profit, operating margins and cash generation of the respective businesses, which includes net sales, cost of sales, selling and administrative expenses and certain components of other income and other expenses, as well as the allocation of corporate overhead expenses. Each segment has standard key performance indicators (“KPIs”), a number of which are focused on customer metrics (on-time-delivery and quality), internal effectiveness and productivity/efficiency metrics (sales effectiveness, global sourcing, operational excellence, functional excellence, sales per employee, cost of quality, and days working capital), employee safety-related metrics (total recordable incident rate and lost time incident rate), and specific KPIs on profitable growth.

Key Industry Data

In both segments, management tracks a variety of economic and industry data as indicators of the health of a particular sector.

At Industrial, key data for the manufacturing operations include the Institute for Supply Management’s manufacturing PMI Composite Index (and similar indices for European and Asian-based businesses); the Federal Reserve’s Industrial Production Index ("the IPI"); the Global Insight global medical and measuring equipment index; the production of light vehicles, both in the U.S. and globally; worldwide light vehicle new model introductions and existing model refreshes; North American medium and heavy duty vehicle production; and global GDP growth forecasts.

At Aerospace, management of the aftermarket business monitors the number of aircraft in the active fleet, the number of planes temporarily or permanently taken out of service, aircraft utilization rates for the major airlines, engine shop visits, airline profitability, aircraft fuel costs and traffic growth. The Aerospace OEM business regularly tracks orders and deliveries for each of the major aircraft manufacturers, as well as engine purchases made for new aircraft. Management also monitors annual appropriations for the U.S. military related to purchases of new or used aircraft and engine components.

RESULTS OF OPERATIONS

Sales

($ in millions)	2016	2015	$ Change	% Change	2014
Industrial	**$ 824.2**	$ 782.3	$ 41.9	5.4 %	$ 822.1
Aerospace	**406.5**	411.7	(5.2)	(1.3)%	440.0
Total	**$ 1,230.8**	$ 1,194.0	$ 36.8	3.1 %	$ 1,262.0

2016 vs. 2015 :

The Company reported net sales of $ 1,230.8 million in 2016 , an increase of $36.8 million, or 3.1% , from 2015 . Acquired businesses contributed incremental sales of $ 47.4 million during the 2016 period. Organic sales within Industrial increased by $4.1 million , or 0.5% , during 2016 , primarily due to strength in our Molding Solutions businesses, slightly offset by continued softness in North American general industrial end-markets. Aerospace recorded sales of $ 406.5 million in 2016 , a $5.2 million , or 1.3% decrease from 2015 . Lower sales within the OEM and spare parts businesses were partially offset by increased sales within the MRO business. The impact of foreign currency translation decreased sales within Industrial by approximately $ 9.6 million as the U.S. dollar strengthened against foreign currencies. Sales within Aerospace were not impacted by changes in foreign currency as these are largely denominated in U.S. dollars. The Company’s international sales increased 10.4% year-over-year, while domestic sales decreased 4.7% , largely a result Aerospace sales being primarily U.S.-based. Excluding the impact of foreign currency translation on sales, however, the Company's international sales in 2016 increased 12.0% , inclusive of sales through acquisition, from 2015.

2015 vs. 2014 :

The Company reported net sales of $ 1,194.0 million in 2015 , a decrease of $68.0 million , or 5.4% , from 2014 . The acquisitions of Thermoplay on August 7, 2015 and Priamus on October 1, 2015 provided sales of $13.6 million and $2.0 million, respectively, during the 2015 period. Organic sales within Industrial increased by $13.5 million, or 1.6%, during 2015 , primarily due to favorable end-markets served by our tool and die and plastics businesses during the first half of 2015. A softening within our transportation and general industrial end-markets during the second half of 2015 tempered a substantial portion of the organic growth in the first half of the year. Aerospace recorded sales of $411.7 million in 2015 , a $28.3 million, or 6.4% decrease from 2014. Lower sales within the OEM and MRO businesses were partially offset by increased sales within the spare parts business. The spare parts business benefited from increased demand as a result of higher aircraft utilization and customer restocking of inventory, whereas the MRO business continued to be impacted by deferred maintenance on certain platforms. The timing of customer deliveries and execution, which was partially impacted by new product introduction challenges, in addition to the impact of a contract termination dispute, directly impacted lower sales within the OEM business during the second half of 2015. The impact of foreign currency translation decreased sales within Industrial by approximately $68.8 million as the U.S. dollar strengthened against foreign currencies. Sales within Aerospace were not impacted by changes in foreign currency as these are largely denominated in U.S. dollars. The Company’s international sales decreased 2.4% year-over-year, while domestic sales decreased 4.7%. Excluding the impact of foreign currency translation on sales, however, the Company's international sales in 2015 increased 7.8%, inclusive of sales through acquisition, from 2014.

Expenses and Operating Income

($ in millions)	2016	2015	$ Change	% Change	2014
Cost of sales	**$ 790.3**	$ 782.8	$ 7.5	1.0%	$ 829.6
% sales	**64.2%**	65.6%			65.7%
Gross profit [1]	**$ 440.5**	$ 411.2	$ 29.3	7.1%	$ 432.4
% sales	**35.8%**	34.4%			34.3%
Selling and administrative expenses	**$ 248.3**	$ 242.8	$ 5.5	2.3%	$ 252.4
% sales	**20.2%**	20.3%			20.0%
Operating income	**$ 192.2**	$ 168.4	$ 23.8	14.1%	$ 180.0
% sales	**15.6%**	14.1%			14.3%

(1) Sales less cost of sales

2016 vs. 2015 :

Cost of sales in 2016 increased 1.0% from 2015 , while gross profit margin increased from 34.4% in 2015 to 35.8% in 2016. Gross margins improved at Industrial and decreased at Aerospace. Gross margin during the comparable 2015 period included a charge of $6.4 million related to a lump-sum pension settlement charge (see Note 11 of the Consolidated Financial Statements). At Industrial, gross profit increased during 2016 primarily as a result of favorable productivity and strength within the Molding Solutions businesses. Gross profit during 2016 was negatively impacted by $2.3 million of short-term purchase accounting adjustments related to the acquisition of FOBOHA, whereas the 2015 period included $0.9 million of short-term purchase accounting adjustments related to the acquisition of the Männer business and $0.9 million of short-term purchase accounting adjustments related to the acquisition of Thermoplay. Within Aerospace, a decline in gross profit relates primarily to lower sales volumes and unfavorable productivity. Selling and administrative expenses in 2016 increased 2.3% from the 2015 period, due in part to $3.0 million of costs related to the contract termination dispute within the Aerospace segment and the incremental operations of the acquired businesses, partially offset by an $0.8 million reduction in short-term purchase accounting adjustments related to acquisitions. During the 2015 period, selling and administrative expenses included $4.2 million of charges related to workforce reductions and severance, and $3.5 million of lump-sum pension settlement charges. Short-term purchase accounting adjustments that impact selling and administrative expenses during 2015 included $0.6 million and $0.3 million related to the acquisitions of Männer and Thermoplay, respectively. As a percentage of sales, selling and administrative costs decreased slightly from 20.3% in the 2015 period to 20.2% in the 2016 period. Operating income in the 2016 period increased 14.1% to $192.2 million from 2015 and operating income margin increased from 14.1% to 15.6% .

2015 vs. 2014 :

Cost of sales in 2015 decreased 5.6% from 2014, while gross profit margin increased slightly from 34.3% in 2014 to 34.4% in 2015. Gross margins remained flat at Industrial and improved slightly at Aerospace, however a higher percentage of sales were driven by the Industrial segment in 2015. The gross profit decrease during 2015 includes a charge of $6.4 million related to a lump-sum pension settlement (see Note 11 of the Consolidated Financial Statements). At Industrial, gross profit during 2014 was partially offset by $4.5 million of short-term purchase accounting adjustments related to the acquisition of the Männer business and restructuring charges of $5.4 million related to the closure of the Saline facility, which was completed in 2014. During 2015, short term purchase accounting adjustments of $0.9 million and $0.9 million were related to the acquisitions of the Männer business and Thermoplay, respectively. Within Aerospace, gross profit declined as a result lower sales within OEM, partially offset by increased profits within the spare parts business, and a $2.8 million charge related to a contract termination dispute following a customer decision to re-source. Selling and administrative expenses decreased 3.8% from 2014 due primarily to foreign exchange translation and a $3.4 million reduction in the short-term purchase accounting adjustments related to the acquisition of the Männer business. Lower employee related expenses, primarily from incentive compensation, reduced selling and administrative expenses during the 2015 period. The 2014 period also included $0.6 million of charges related to the closure of the Saline facility. These expense reductions during 2015 were partially offset by $4.2 million of charges related to workforce reductions and severance, $3.5 million of lump-sum pension settlement charges and $0.3 million of short-term purchase accounting adjustments related to the acquisition of Thermoplay. As a percentage of sales, selling and administrative costs increased from 20.0% in 2014 to 20.3% in 2015. Operating margin was 14.1% in 2015 compared to 14.3% in 2014.

Interest expense

2016 vs. 2015 :

Interest expense in 2016 increased $1.2 million to $11.9 million from 2015 , primarily as a result of higher average interest rates.

2015 vs. 2014 :

Interest expense in 2015 decreased $ 0.7 million to $ 10.7 million from 2014 , primarily as a result of lower average borrowings, partially offset by higher average borrowing rates resulting from the 3.97% Senior Notes that were issued under the Note Purchase Agreement executed on October 15, 2014. See Liquidity and Capital Resources within Item 7.

Other expense (income), net

2016 vs. 2015 :

Other expense (income), net in 2016 was $ (2.3) million compared to $ (0.2) million in 2015 . Foreign currency gains of $ 1.9 million in the 2016 period compared with gains of $ 0.5 million in the 2015 period. Interest income of $2.3 million in 2016 compared with interest income of $1.0 million during 2015, with the increase being primarily attributed to the $1.4 million of interest income resulting from the Triumph arbitration award. See Note 20 of the Consolidated Financial Statements.

2015 vs. 2014 :

Other expense (income), net in 2015 was $ (0.2) million compared to $ 2.1 million in 2014 . Foreign currency gains of $0.5 million in the 2015 period compared with foreign currency losses of $1.5 million in the 2014 period.

Income Taxes

2016 vs. 2015 :

The Company's effective tax rate from continuing operations was 25.7% in 2016 compared with 23.2% in 2015. The increase in the 2016 effective tax rate from continuing operations is primarily due to the expiration of certain tax holidays, the absence of the 2015 refund of withholding taxes and the change in the mix of earnings attributable to higher-taxing jurisdictions, partially offset by lower repatriation of a portion of current year foreign earnings to the U.S and the excess tax benefit on stock awards, reflecting the amended guidance related to share-based payments made to employees. See Note 21 of the Consolidated Financial Statements. During 2016, the Company repatriated a dividend from a portion of the current year foreign earnings to the U.S. in the amount of $8.3 million compared to $19.5 million in 2015. The decrease in the dividend decreased tax expense by $3.9 million and decreased the annual effective tax rate by 2.2 percentage points compared to 2015.

In 2017, the Company expects the effective tax rate from continuing operations to increase to between 27% and 28% primarily due to the absence of any excess tax benefit on stock awards and the expiration of certain foreign tax holidays.

2015 vs. 2014 :

The Company's effective tax rate from continuing operations was 23.2% in 2015 compared with 27.6% in 2014 . The decrease in 2015 is primarily due to a tax refund of withholding taxes, the granting of an extended tax holiday in China as well as a change in the mix of earnings in lower tax jurisdictions offset by an increase in the repatriation of a portion of current year foreign earnings to the U.S. During 2015 , the Company repatriated a dividend from a portion of the current year foreign earnings to the U.S. in the amount of $19.5 million compared to $12.5 million in 2014 . The increase in the dividend increased tax expense by $2.4 million and increased the annual effective tax rate by 1.5 percentage points compared to 2014 .

See Note 13 of the Consolidated Financial Statements for a reconciliation of the U.S. federal statutory income tax rate to the consolidated effective income tax rate.

Income and Income Per Share

(in millions, except per share)	2016	2015	Change	% Change	2014
Income from continuing operations	**$ 135.6**	$ 121.4	$ 14.2	11.7 %	$ 120.5
Loss from discontinued operations, net of income taxes	**—**	—	—		(2.2)
Net income	**$ 135.6**	$ 121.4	$ 14.2	11.7 %	$ 118.4
Per common share:					
Basic:					
Income from continuing operations	**$ 2.50**	$ 2.21	$ 0.29	13.1 %	$ 2.20
Loss from discontinued operations, net of income taxes	**—**	—	—		(0.04)
Net income	**$ 2.50**	$ 2.21	$ 0.29	13.1 %	$ 2.16
Diluted:					
Income from continuing operations	**$ 2.48**	$ 2.19	$ 0.29	13.2 %	$ 2.16
Loss from discontinued operations, net of income taxes	**—**	—	—		(0.04)
Net income	**$ 2.48**	$ 2.19	$ 0.29	13.2 %	$ 2.12
Weighted average common shares outstanding:					
Basic	**54.2**	55.0	(0.8)	(1.5)%	54.8
Diluted	**54.6**	55.5	(0.9)	(1.6)%	55.7

Basic and diluted income from continuing operations per common share increased for 2016 as compared to 2015, consistent with the changes in income from continuing operations year over year. Basic and diluted weighted average common shares outstanding decreased due to the repurchase of 1,352,596 and 550,994 shares during 2015 and 2016, respectively, as part of the Company's repurchase program. The impact of the repurchased shares was partially offset by the issuance of shares for employee stock plans.

Financial Performance by Business Segment

Industrial

($ in millions)	2016	2015	$ Change	% Change	2014
Sales	**$ 824.2**	$ 782.3	$ 41.9	5.4%	$ 822.1
Operating profit	**129.7**	103.0	26.7	26.0%	108.4
Operating margin	**15.7%**	13.2%			13.2%

2016 vs. 2015 :

Sales at Industrial were $ 824.2 million in 2016 , an increase of $41.9 million , or 5.4% , from 2015 . Acquired businesses contributed incremental sales of $ 47.4 million during the 2016 period. Organic sales increased by $4.1 million , or 0.5% , during 2016 , driven primarily by strength in our Molding Solutions businesses, slightly offset by continued softness in North American general industrial end-markets. The impact of foreign currency translation decreased sales by approximately $ 9.6 million as the U.S. dollar strengthened against foreign currencies.

Operating profit in 2016 at Industrial was $ 129.7 million , an increase of 26.0% from 2015 . The increase was driven by favorable productivity, as the Company continued its focus on manufacturing efficiencies and improved supply chain management across multiple units, and the profit contributions of acquired businesses, partially offset by lower pricing. The 2015 period included $3.6 million of short-term purchase accounting adjustments and transaction costs related to business acquisitions, whereas the acquisition of FOBOHA during the 2016 period resulted in $3.5 million of such costs. The 2015 period also included lump-sum pension settlement charges of $7.5 million that were allocated to the segment and $3.4 million of charges related to certain workforce reductions and restructuring.

Outlook:

In Industrial, management is focused on generating organic sales growth through the introduction of new products and by leveraging the benefits of the diversified products and industrial end-markets in which its businesses have a global presence. Our ability to generate sales growth is subject to economic conditions in the global markets served by all of our businesses. For general industrial end-markets, manufacturing Purchasing Managers Indexes ("PMIs") above 50 in North America and Europe are positive signs. China, although relatively stable during the first half of 2016, demonstrated strength during the second half of the year. Within China, we have seen a strengthening in orders that began during the second quarter and continued throughout the remainder of 2016, indicating strength within the transportation markets. Global forecasted production for light vehicles is expected to grow nominally in 2017, however production is expected to remain stable within the markets in which the Company operates. Within our Molding Solution businesses, North American and European markets remain healthy, while demand in Asia is more modest. For the Molding Solutions businesses in 2017, we anticipate favorable demand trends to continue within the medical and personal care hot runner markets and the packaging and medical mold markets. As noted above, our sales were negatively impacted by fluctuations in foreign currencies during 2016 of $ 9.6 million . To the extent that the U.S. dollar remains strong as compared with the other foreign currencies, our sales may continue to be unfavorably impacted by foreign currency relative to the prior year periods. The relative impact on operating profit is not expected to be as significant as the impact on sales as most of our businesses have expenses primarily denominated in local currencies, where their revenues reside. The Company also remains focused on sales growth through acquisition and expanding geographic reach. Strategic investments in new technologies, manufacturing processes and product development are expected to provide incremental benefits over the long term.

Operating profit is largely dependent on the sales volumes and mix of the businesses in the segment. Management continues to focus on improving profitability and expanding margins through leveraging organic sales growth, acquisitions, pricing initiatives, global sourcing and productivity. Workforce reductions and facility consolidations initiated in 2015, combined with other productivity initiatives during 2016, contributed favorably throughout the year. We continue to evaluate market conditions and remain proactive in managing costs. Costs associated with new product and process introductions, productivity or restructuring initiatives, strategic investments and the integration of acquisitions may negatively impact operating profit.

2015 vs. 2014 :

Sales at Industrial were $ 782.3 million in 2015 , a decrease of $39.8 million or 4.8% from 2014 . The acquisitions of Thermoplay on August 7, 2015 and Priamus on October 1, 2015 provided sales of $13.6 million and $2.0 million, respectively, during the 2015 period. Organic sales increased by $13.5 million, or 1.6%, during 2015, primarily due to favorable end-markets served by our tool and die and plastics businesses during the first half of 2015. A softening within our transportation and general industrial end-markets during the second half of 2015 tempered a substantial portion of organic growth in the first half. The impact of foreign currency translation decreased sales by approximately $68.8 million as the U.S. dollar strengthened against foreign currencies.

Operating profit in 2015 at Industrial was $103.0 million, a decrease of 5.0% from 2014. Operating profit benefited primarily from the profit contribution of increased organic sales within our end markets during the first half of 2015, more than offset by lower productivity and the unfavorable impact of foreign exchange during the full year. The 2015 period also included lump-sum pension settlement charges of $7.5 million that were allocated to the segment, short-term purchase adjustments and transaction costs resulting from the acquisitions of Thermoplay and Priamus of $1.9 million and $0.2 million, respectively, and $3.4 million of charges related to certain workforce reductions and restructuring. Lower sales volumes during the second half of 2015 tapered the benefit of growth in organic sales during the first half of the year. The 2014 period included $8.5 million of short-term purchase accounting adjustments related to the acquisition of the Männer Business, whereas the 2015 period included $1.5 million of such adjustments. The 2014 period also included $6.0 million of pre-tax restructuring charges related to the closure of production operations at the facility in Saline, Michigan.

Aerospace

($ in millions)	2016	2015	$ Change	% Change	2014
Sales	**$ 406.5**	$ 411.7	$ (5.2)	(1.3)%	$ 440.0
Operating profit	**62.5**	65.4	(2.9)	(4.5)%	71.6
Operating margin	**15.4%**	15.9%			16.3%

2016 vs. 2015 :

Aerospace recorded sales of $ 406.5 million in 2016 , a 1.3% decrease from 2015 . Lower sales within the original equipment manufacturing ("OEM") and spare parts businesses were partially offset by increased sales within the aftermarket maintenance repair and overhaul ("MRO") business. During the 2016 period, the segment continued to transition from the manufacture of components on legacy engine platforms to newer, more technologically advanced platforms. Lower volumes on the GE90 engine platform, as well as on other mature engine platforms, were partially offset by increased volume generated by newer programs within the OEM business. A decline in aftermarket spare parts was partially offset by a volume increase in the MRO business. Customer inventory management resulted in lower volumes within the spare parts business. Sales within the MRO business, although soft during the first half of the year, improved during the second half of 2016 as we obtained additional sales volume from existing customers. This business, however, continues to be impacted by airlines continuing to closely manage their aftermarket costs and as engine performance and quality has improved. Sales were not impacted by changes in foreign currency as sales within the segment are largely denominated in U.S. dollars.

Operating profit at Aerospace decreased 4.5% from 2015 to $ 62.5 million . The operating profit decrease was primarily due to pricing deflation, the profit impact of lower volumes within the highly profitable spare parts business and unfavorable productivity, primarily a result of the transition from legacy engine platforms to newer, more advanced programs. Operating profit included a $1.4 million benefit from the contract termination arbitration award. Charges related to the contract termination dispute approximated $3.0 million and $2.8 million during the 2016 and 2015 periods, respectively. Operating profit in 2015 also included a lump-sum pension settlement charge of $2.4 million that was allocated to the segment and $0.8 million in workforce reduction and restructuring charges.

Outlook:

Sales in the Aerospace OEM business are based on the general state of the aerospace market driven by the worldwide economy and are supported by its order backlog through participation in certain strategic commercial and military engine and airframe programs. Over the next several years, the Company expects strength in demand for new engines, driven by an expected increase in commercial aircraft production levels. The Company sees 2016 as having been a transition year for the Aerospace OEM business as it moves from declining production on some of its legacy engine programs onto the ramping of several new engine programs. Backlog at OEM was $626.3 million at December 31, 2016 , an increase of 11.1% since December 31, 2015 , at which time backlog was $563.9 million . Approximately 50% of OEM backlog is expected to ship in the next 12 months. The Aerospace OEM business may be impacted by changes in the content levels on certain platforms, changes in customer sourcing decisions, adjustments to customer inventory levels, commodity availability and pricing, changes in production schedules of specific engine and airframe programs, redesign of parts, quantity of parts per engine, cost schedules agreed to under contract with the engine manufacturers, as well as the pursuit and duration of new programs. Sales in the Aerospace aftermarket business may be impacted by fluctuations in end-market demand, inventory management and changes in customer sourcing, deferred or limited maintenance activity during engine shop visits and the use of surplus (used) material during the engine repair and overhaul process. End markets are expected to grow based on the long term underlying fundamentals of the aerospace industry. Management continues to believe its Aerospace aftermarket business is competitively positioned based on well-established long-term customer relationships, including maintenance and repair contracts in the MRO business and long-term Revenue Sharing Programs ("RSPs") and Component Repair Programs ("CRPs"), expanded capabilities and current capacity levels. Fluctuations in fuel costs and their impact on airline profitability and behaviors within the aerospace industry could impact levels and frequency of aircraft maintenance and overhaul activities, and airlines' decisions on maintaining, deferring or canceling new aircraft purchases, in part based on the value associated with new fuel efficient technologies.

Management is focused on growing operating profit at Aerospace primarily through leveraging organic sales growth, strategic investments, new product and process introductions, and productivity. Operating profit is expected to be affected by the impact of changes in sales volume, mix and pricing, particularly as they relate to the highly profitable aftermarket RSP

spare parts business, and investments made in each of its businesses. During 2015, the Company responded to the challenging economic environment affecting certain of our Aerospace businesses. Workforce reductions and restructure charges were recorded following reduced aftermarket volumes and the impact of a customer's in-sourcing decision. Taking these actions supported our productivity initiatives and have begun to favorably impact segment results during 2016. Costs associated with new product and process introductions, the initial physical transfer of work to lower cost manufacturing regions, additional productivity initiatives and restructuring activities may also negatively impact operating profit.

2015 vs. 2014 :

Aerospace recorded sales of $411.7 million in 2015 , a 6.4% decrease from 2014 . Lower sales within the OEM and MRO businesses were partially offset by increased sales within the spare parts business. The spare parts business benefited from increased demand as a result of higher aircraft utilization and customer restocking of inventory, whereas the MRO business continued to be impacted by deferred maintenance on certain platforms. The timing of customer deliveries and execution, which was partially impacted by new product introduction challenges, in addition to the impact of a contract termination dispute, directly impacted lower sales within the OEM business during the second half of 2015. Sales were not impacted by changes in foreign currency as sales within the segment are largely denominated in U.S. dollars.

Operating profit at Aerospace decreased 8.6% from 2014 to $65.4 million . The operating profit decrease was primarily due to the profit impact of lower sales within the OEM and MRO businesses, lump-sum pension settlement charges of $2.4 million that were allocated to the segment, $0.8 million in workforce reduction and restructuring charges, a $2.8 million charge that resulted from a contract termination dispute following a customer decision to re-source work and lower productivity. Partially offsetting these items were the higher profit impact of increased sales within the spare parts business and lower employee related costs, primarily incentive compensation, partially offset by higher pension costs.

LIQUIDITY AND CAPITAL RESOURCES

Management assesses the Company's liquidity in terms of its overall ability to generate cash to fund its operating and investing activities. Of particular importance in the management of liquidity are cash flows generated from operating activities, capital expenditure levels, dividends, capital stock transactions, effective utilization of surplus cash positions overseas and adequate lines of credit.

The Company's ability to generate cash from operations in excess of its internal operating needs is one of its financial strengths. Management continues to focus on cash flow and working capital management, and anticipates that operating activities in 2017 will generate sufficient cash to fund operations. The Company closely monitors its cash generation, usage and preservation including the management of working capital to generate cash.

On October 15, 2014, the Company entered into a Note Purchase Agreement (“Note Purchase Agreement”), among the Company and New York Life Insurance Company, New York Life Insurance and Annuity Corporation and New York Life Insurance and Annuity Corporation Institutionally Owned Life Insurance Separate Account (BOLI 30C), as purchasers, for the issuance of $100.0 million aggregate principal amount of 3.97% senior notes due October 17, 2024 (the “3.97% Senior Notes”). The Company completed funding of the transaction and issued the 3.97% Senior Notes on October 17, 2014. The 3.97% Senior Notes are senior unsecured obligations of the Company and pays interest semi-annually on April 17 and October 17 of each year at an annual rate of 3.97%. The 3.97% Senior Notes will mature on October 17, 2024 unless earlier prepaid in accordance with their terms. Subject to certain conditions, the Company may, at its option, prepay all or any part of the 3.97% Senior Notes in an amount equal to 100% of the principal amount of the 3.97% Senior Notes so prepaid, plus any accrued and unpaid interest to the date of prepayment, plus the Make-Whole Amount, as defined in the Note Purchase Agreement, with respect to such principal amount being prepaid. The Note Purchase Agreement contains customary affirmative and negative covenants that are similar to the covenants required under the Amended Credit Agreement, as discussed below. At December 31, 2016, the Company was in compliance with all covenants under the Note Purchase Agreement.

During the second quarter of 2014, the 3.375% Convertible Notes (the "3.375% Notes") were eligible for conversion due to meeting their conversion price eligibility requirement. On June 16, 2014, $0.2 million of the 3.375% Notes (par value) were surrendered for conversion. On June 24, 2014, the Company exercised its right to redeem the remaining $55.4 million principal amount of the 3.375% Notes, effective July 31, 2014. The Company elected to pay cash to holders of the 3.375% Notes surrendered for conversion, including the value of any residual shares of common stock that might be payable to the holders electing to convert their 3.375% Notes into an equivalent share value. Under the terms of the indenture, the conversion value was measured based upon a 20-day valuation period of the Company's stock price. The Company used borrowings under its Amended Credit Facility to finance the redemption and conversion of the 3.375% Notes. The remaining 3.375% Notes were

rendered for conversion during the third quarter of 2014 and the Company paid $70.5 million in cash to the holders, which included a premium of $14.9 million.

In September 2013, the Company entered into a second amendment to its fifth amended and restated revolving credit agreement (the "Amended Credit Agreement") and retained Bank of America, N.A. as the administrative agent for the lenders. The $750.0 million Amended Credit Agreement matures in September 2018. The Amended Credit Agreement adds a new foreign subsidiary borrower in Germany, Barnes Group Acquisition GmbH, and includes an accordion feature to increase the borrowing availability of the Company to $1,000.0 million. The Company may exercise the accordion feature upon request to the Administrative Agent as long as an event of default has not occurred or is continuing. The borrowing availability of $750.0 million, pursuant to the terms of the Amended Credit Agreement, allows for Euro-denominated borrowings equivalent to $500.0 million. Borrowings under the Amended Credit Agreement bear interest at LIBOR plus a spread ranging from 1.10% to 1.70% depending on the Company's leverage ratio at prior quarter end. In October 2014, the Company entered into a third amendment to its fifth amended and restated revolving credit agreement, which allowed for the issuance of the Note Purchase Agreement.

The Company's borrowing capacity was limited by various debt covenants in the Amended Credit Agreement and the Note Purchase Agreement (the "Agreements"). The Agreements require the Company to maintain a ratio of Consolidated Senior Debt, as defined in the Agreements, to Consolidated EBITDA, as defined, of not more than 3.25 times at the end of each fiscal quarter ("Senior Debt Ratio"), a ratio of Consolidated Total Debt, as defined, to Consolidated EBITDA of not more than 4.00 times at the end of each fiscal quarter, and a ratio of Consolidated EBITDA to Consolidated Cash Interest Expense, as defined, of not less than 4.25 times at the end of each fiscal quarter. The Agreements also provide that in connection with certain permitted acquisitions with aggregate consideration in excess of $150.0 million, the Consolidated Senior Debt to EBITDA ratio and the Consolidated Total Debt to EBITDA ratio are permitted to increase to 3.50 times and 4.25 times, respectively, for a period of the four fiscal quarters ending after the closing of the acquisition. At December 31, 2016, the Company was in compliance with all covenants under the Agreements. The Company's most restrictive financial covenant is the Senior Debt Ratio which requires the Company to maintain a ratio of Consolidated Senior Debt to Consolidated EBITDA of not more than 3.25 times at December 31, 2016. The actual ratio at December 31, 2016 was 1.69 times.

In February 2017, the Company entered into the fourth amendment of its fifth amended and restated revolving credit agreement (the "the Fourth Amendment") and retained Bank of America, N.A as the Administrative Agent for the lenders. The Fourth Amendment increases the facility to $850.0 million and extends the maturity date to February 2022. The Fourth Amendment also increases the existing accordion feature, allowing the Company to request additional borrowings of up to $350.0 million. The Company may exercise the accordion feature upon request to the Administrative Agent as long as an event of default has not occurred or is not continuing. The borrowing availability of $850.0 million, pursuant to the terms of the Fourth Amendment, allow for multi-currency borrowing which includes euro, sterling or Swiss franc borrowing, up to $600.0 million. Depending on the Company's consolidated leverage ratio, and at the election of the Company, borrowings under the Fourth Amendment will bear interest at either LIBOR plus a margin of between 1.10% and 1.70% or the base rate plus a margin of 0.10% to 0.70%. The Fourth Amendment generally requires the Company to maintain a ratio of Consolidated Senior Debt, as defined, to Consolidated EBITDA of not more than 3.25 times, a ratio of Consolidated Total Debt, as defined, to Consolidated EBITDA, as defined, of not more than 3.75 times, and a ratio of Consolidated EBITDA to Consolidated Cash Interest Expense, as defined, of not less than 4.25 times, in each case at the end of each fiscal quarter; provided that these debt to EBITDA ratios are permitted to increase for a period of four fiscal quarters after the closing of certain permitted acquisitions.

In 2016, 2015 and 2014, the Company acquired 0.6 million shares, 1.4 million shares and 0.2 million shares of the Company's common stock, respectively, at a cost of $20.5 million, $52.1 million and $8.4 million, respectively.

In the third quarter of 2016, the Company, through three of its subsidiaries (collectively, the "Purchaser"), completed its acquisition of the molds business of Adval Tech Holding AG and Adval Tech Holdings (Asia) Pte. Ltd. ("FOBOHA")(collectively, the "Sellers"). See Note 2 of the Consolidated Financial Statements. The Company acquired FOBOHA for an aggregate cash purchase price of CHF 136.3 million ($138.6 million) which was financed using cash on hand and borrowings under the Company's revolving credit facility. The purchase price includes preliminary adjustments under the terms of the Sale and Purchase Agreement ("SPA"), including approximately CHF 11.3 million ($11.5 million) related to cash acquired, and is subject to post closing adjustments under the terms of the SPA The aggregate purchase was paid using cash on hand of $68.5 million and borrowings of $70.1 million under the Company's revolving credit facility. At December 31, 2016, the Company had repaid $62.0 million of the borrowings under the revolving credit facility using cash generated from its foreign operations. In July 2016, the Company entered into forward contract agreements (CHF 133.0 million in aggregate) to reduce the exposure to foreign currency exchange rates on the purchase price. These forward contract agreements were subsequently settled in August 2016 and did not have a significant impact on the Consolidated Statements of Income.

Operating cash flow may be supplemented with external borrowings to meet near-term business expansion needs and the Company's current financial commitments. The Company has assessed its credit facilities in conjunction with the Fourth Amendment of the Amended Credit Facility and currently expects that its bank syndicate, comprised of 14 banks, will continue to support its Amended Credit Agreement which matures in February 2022. At December 31, 2016 , the Company had $386.7 million unused and available for borrowings under its then existing $750.0 million Amended Credit Facility, subject to covenants in the Company's debt agreements. At December 31, 2016 , additional borrowings of $683.2 million of Total Debt and $461.2 million of Senior Debt would have been allowed under the financial covenants. The Company intends to use borrowings under its Amended Credit Facility to support the Company's ongoing growth initiatives. The Company believes its credit facilities and access to capital markets, coupled with cash generated from operations, are adequate for its anticipated future requirements.

The Company had $30.7 million in borrowings under short-term bank credit lines at December 31, 2016 .

In 2012, the Company entered into five-year interest rate swap agreements transacted with three banks which together convert the interest on the first $100.0 million of borrowings under the Company’s Credit Agreement from a variable rate plus the borrowing spread to a fixed rate of 1.03% plus the borrowing spread for the purpose of mitigating its exposure to variable interest rates. At December 31, 2016 and December 31, 2015, the Company's total borrowings were comprised of 41% fixed rate debt and 59% variable rate debt.

The funded status of the Company's pension plans is dependent upon many factors, including actual rates of return that impact the fair value of pension assets and changes in discount rates that impact projected benefit obligations. The unfunded status of the pension plans increased from $65.7 million at December 31, 2015 to $77.0 million at December 31, 2016 as the increase in the projected benefit obligations ("PBOs") exceeded the increase in the fair value of the pension plan assets, following an update of certain actuarial assumptions. The Company recorded a $8.9 million non-cash after-tax decrease in stockholders equity (through other non-owner changes to equity) to record the current year adjustments for changes in the funded status of its pension and postretirement benefit plans as required under accounting for defined benefit and other postretirement plans. This decrease in stockholders equity resulted primarily from changes in actuarial assumptions, primarily the discount rate, and unfavorable variances between expected and actual returns on pension plan assets, offset by the amortization of actuarial losses recorded earlier. In 2016, as planned, the Company made $15.0 million in discretionary contributions to the U.S. qualified pension plans. The Company expects to contribute approximately $ 4.9 million to its various defined benefit pension plans in 2017. No discretionary contributions to the U.S. Qualified pension plans in 2017 are currently planned. See Note 11 of the Consolidated Financial Statements.

At December 31, 2016 , the Company held $66.4 million in cash and cash equivalents, the majority of which was held by foreign subsidiaries. These amounts have no material regulatory or contractual restrictions and are expected to primarily fund international investments. The Company repatriated $8.3 million of current year foreign earnings to the U.S. during 2016.

Any future acquisitions are expected to be financed through internal cash, borrowings and equity, or a combination thereof. Additionally, we may from time to time seek to retire or repurchase our outstanding debt through cash purchases and/or exchanges for equity securities, in open market purchases, under a Rule 10b5-1 trading plan, privately negotiated transactions or otherwise. Such repurchases or exchanges, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors.

Cash Flow

($ in millions)	**2016**	**2015**	**$ Change**	**% Change**	**2014**
Operating activities	**$ 217.6**	$ 217.5	$ 0.2	0.1 %	$ 196.2
Investing activities	**(179.5)**	(115.5)	(64.0)	(55.4)%	(124.2)
Financing activities	**(53.3)**	(59.2)	5.9	9.9 %	(92.8)
Exchange rate effect	**(2.3)**	(4.9)	2.6	53.2 %	(3.9)
(Decrease) increase in cash	**$ (17.5)**	$ 37.9	$ (55.4)	NM	$ (24.8)

NM – Not meaningful

Operating activities provided $217.6 million in 2016 compared to $217.5 million in 2015. Operating cash flows in the 2016 period were positively impacted by improved operating performance as well as a reduction in outflows of accrued liabilities, including employee incentive compensation payments. Cash inflows in the 2016 period were partially offset by an

outflow of $15.0 million related to discretionary contributions to the U.S. Qualified pension plans and were negatively impacted by an increase in receivables resulting from sales growth which generated a use of cash in 2016.

Investing activities used $179.5 million in cash in 2016 and $115.5 million in 2015 . Investing activities in 2016 include a cash outflow of $127.1 million used to fund the FOBOHA acquisition compared to $52.0 million used to fund the Thermoplay and Priamus acquistions in 2015. Investing activities in 2016 also include a payment of $1.5 million related to the post-acquisition closing adjustment of Thermoplay. Payments related to the Component Repair Programs ("CRPs") were $4.1 million in 2016 compared to $21.0 million in 2015. See Note 5 of the Consolidated Financial Statements. Capital expenditures were $47.6 million in 2016 compared to $46.0 million in 2015. The Company expects capital spending in 2017 to approximate $55 million. Capital expenditures relate to both maintenance needs and support of growth initiatives, which include the purchase of equipment to support new products and services, and will be funded primarily through cash flows from operations.

Cash used by financing activities in 2016 included a net decrease in borrowings of $9.9 million compared to a net increase of $2.7 million in 2015 . In 2016, the Company borrowed $100.0 million under the Amended Credit Facility through an international subsidiary. The proceeds were distributed to the Parent Company and subsequently used to pay down U.S. borrowings under the Amended Credit Agreement. Proceeds from the issuance of common stock were $4.6 million and $11.4 million in 2016 and 2015 , respectively. In 2016, the Company repurchased 0.6 million shares of the Company's stock at a cost of $20.5 million, compared with the purchase of 1.4 million shares at a cost of $52.1 million in 2015. Total cash used to pay dividends increased slightly to $27.4 million in 2016 compared to $26.2 million in 2015 . Withholding taxes paid on stock issuances in the 2016 and 2015 periods were $4.9 million and $4.9 million, respectively. Other financing cash flows during 2016 and 2015 include $5.2 million and $10.3 million, respectively, of net cash proceeds from the settlement of foreign currency hedges related to intercompany financings.

Debt Covenants

Borrowing capacity is limited by various debt covenants in the Company's debt agreements. As of December 31, 2016 , the most restrictive financial covenant is included within the Amended Credit Agreement and the Note Purchase Agreement and requires the Company to maintain a maximum ratio of Consolidated Senior Debt, as defined, to Consolidated EBITDA, as defined, of not more than 3.25 times for the four fiscal quarters then ending. The Agreements also contain other financial covenants that require the maintenance of a certain other debt ratio, Consolidated Total Debt, as defined, to Consolidated EBITDA of not more than 4.00 times and a certain interest coverage ratio, Consolidated EBITDA to Consolidated Cash Interest Expense, as defined, of at least 4.25 times, at December 31, 2016 . The Agreements also provide that in connection with certain permitted acquisitions with aggregate consideration in excess of $150.0 million, the Consolidated Senior Debt to EBITDA ratio and the Consolidated Total Debt to EBITDA ratio are permitted to increase to 3.50 times and 4.25 times, respectively, for a period of the four fiscal quarters ending after the closing of the acquisition. Following is a reconciliation of Consolidated EBITDA to the Company's net income (in millions):

	2016
Net income	$ 135.6
Add back:	
Interest expense	11.9
Income taxes	47.0
Depreciation and amortization	80.2
Adjustment for non-cash stock based compensation	11.1
Adjustment for acquired businesses	7.4
Amortization of FOBOHA acquisition inventory step-up	2.3
Other adjustments	0.6
Consolidated EBITDA, as defined	$ 296.0
Consolidated Senior Debt, as defined, as of December 31, 2016	$ 501.0
Ratio of Consolidated Senior Debt to Consolidated EBITDA	1.69
Maximum	3.25
Consolidated Total Debt, as defined, as of December 31, 2016	$ 501.0
Ratio of Consolidated Total Debt to Consolidated EBITDA	1.69
Maximum	4.00
Consolidated Cash Interest Expense, as defined, as of December 31, 2016	$ 13.1
Ratio of Consolidated EBITDA to Consolidated Cash Interest Expense	22.55
Minimum	4.25

The Amended Credit Agreement allows for certain adjustments within the calculation of the financial covenants. The adjustment for acquired businesses reflects the unaudited pre-acquisition operations of FOBOHA for the period from January 1, 2016 through August 31, 2016. Other adjustments consist primarily of net gains on the sale of assets and due diligence and transaction expenses as permitted under the Amended Credit Agreement. The Company's financial covenants are measured as of the end of each fiscal quarter. At December 31, 2016 , additional borrowings of $683.2 million of Total Debt and $461.2 million of Senior Debt would have been allowed under the covenants. Senior Debt includes primarily the borrowings under the Amended Credit Facility, the 3.97% Senior Notes and the borrowings under the lines of credit. The Company's unused committed credit facilities at December 31, 2016 were $386.7 million.

Contractual Obligations and Commitments

At December 31, 2016, the Company had the following contractual obligations and commitments:

($ in millions)	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Long-term debt obligations [1]	$ 470.1	$ 2.1	$ 365.3	$ 1.0	$ 101.8
Estimated interest payments under long-term obligations [2]	43.8	11.0	13.3	8.2	11.3
Operating lease obligations	33.5	7.9	10.6	7.2	7.8
Purchase obligations [3]	139.9	128.0	9.0	2.5	0.4
Expected pension contributions [4]	4.9	4.9	—	—	—
Expected benefit payments – other postretirement benefit plans [5]	29.8	4.0	6.5	6.4	12.9
Total	$ 722.0	$ 157.9	$ 404.7	$ 25.2	$ 134.2

(1) Long-term debt obligations represent the required principal payments under such agreements.
(2) Interest payments under long-term debt obligations have been estimated based on the borrowings outstanding and market interest rates as of December 31, 2016.
(3) The amounts do not include purchase obligations reflected as current liabilities on the consolidated balance sheet. The purchase obligation amount includes all outstanding purchase orders as of the balance sheet date as well as the minimum contractual obligation or termination penalty under other contracts.
(4) The amount included in “Less Than 1 Year” reflects anticipated contributions to the Company’s various pension plans. Anticipated contributions beyond one year are not determinable.

(5) The amounts reflect anticipated future benefit payments under the Company's various other postretirement benefit plans based on current actuarial assumptions. Expected benefit payments do not extend beyond 2026. See Note 11 of the Consolidated Financial Statements.

The above table does not reflect unrecognized tax benefits as the timing of the potential payments of these amounts cannot be determined. See Note 13 of the Consolidated Financial Statements.

OTHER MATTERS

Inflation

Inflation generally affects the Company through its costs of labor, equipment and raw materials. Increases in the costs of these items have historically been offset by price increases, commodity price escalator provisions, operating improvements, and other cost-saving initiatives.

Critical Accounting Policies

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant accounting policies are disclosed in Note 1 of the Consolidated Financial Statements. The most significant areas involving management judgments and estimates are described below. Actual results could differ from such estimates.

Inventory Valuation: Inventories are valued at the lower of cost, determined on a first-in, first-out basis, or market. Provisions are made to reduce excess or obsolete inventories to their estimated net realizable value. Loss provisions, if any, on aerospace contracts are established when estimable. Loss provisions are based on the projected excess of manufacturing costs over the net revenues of the products or group of related products under contract or purchase order. The process for evaluating the value of excess and obsolete inventory often requires the Company to make subjective judgments and estimates concerning future sales levels, access to applicable markets, quantities and prices at which such inventory will be sold in the normal course of business. Accelerating the disposal process or incorrect estimates of future sales potential may necessitate future adjustments to these provisions.

Business Acquisitions, Indefinite-Lived Intangible Assets and Goodwill: Assets and liabilities acquired in a business combination are recorded at their estimated fair values at the acquisition date. At December 31, 2016 , the Company had $633.4 million and $42.8 million of goodwill and indefinite-lived intangible assets, respectively. Goodwill represents the cost of acquisitions in excess of fair values assigned to the underlying net assets of acquired companies. Goodwill and intangible assets deemed to have indefinite lives are not amortized but are subject to impairment testing annually or earlier if an event or change in circumstances indicates that the fair value of a reporting unit may have been reduced below its carrying value. Management completes its annual impairment assessments for goodwill and indefinite-lived intangible assets during the second quarter of each year. The Company uses the option to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative impairment tests in accordance with applicable accounting standards.

Under the qualitative goodwill assessment, management considers relevant events and circumstances including but not limited to macroeconomic conditions, industry and market considerations, overall unit performance and events directly affecting a unit. If the Company determines that the two-step quantitative impairment test is required, management estimates the fair value of the reporting unit primarily using the income approach, which reflects management's cash flow projections, and also evaluates the fair value using the market approach. Inherent in management's development of cash flow projections are assumptions and estimates, including those related to future earnings and growth and the weighted average cost of capital. Based on the second quarter 2016 assessment, the estimated fair value of all reporting units significantly exceeded their carrying values and there was no goodwill impairment at any of the reporting units. Many of the factors used in assessing fair value are outside the control of management, and these assumptions and estimates can change in future periods as a result of both Company-specific and overall economic conditions. Management's quantitative assessment during the second quarter of 2016 included a review of the potential impacts of current and projected market conditions from a market participant's perspective on reporting units' projected cash flows, growth rates and cost of capital to assess the likelihood of whether the fair value would be less than the carrying value. While management expects future operating improvements at certain reporting units to result from improving end-market conditions, new product introductions and further market penetration, there can be no assurance that such expectations will be met or that the fair value of the reporting units will continue to exceed their carrying values. If the fair values were to fall below the carrying values, a non-cash impairment charge to income from operations could result. Management also performed its annual impairment testing of its trade names, indefinite-lived intangible assets, during the second quarter of 2016. Based on this assessment, there was no trade name impairment recognized.

Aerospace Aftermarket Programs: The Company participates in aftermarket RSPs under which the Company receives an exclusive right to supply designated aftermarket parts over the life of the related aircraft engine program. As consideration, the Company has paid participation fees, which are recorded as intangible assets. The carrying value of these intangible assets was $198.0 million at December 31, 2016. The Company records amortization of the related asset as sales dollars are being earned based on a proportional sales dollar method. Specifically, this method amortizes each asset as a reduction to revenue based on the proportion of sales under a program in a given period to the estimated aggregate sales dollars over the life of that program which reflects the pattern in which economic benefits are realized.

The Company entered into Component Repair Programs ("CRPs") with General Electric ("GE") during the fourth quarter of 2013 ("CRP 1"), the second quarter of 2014 ("CRP 2") and the fourth quarter of 2015 ("CRP 3"). The CRPs provide for, among other items, the right to sell certain aftermarket component repair services for CFM56, CF6, CF34 and LM engines directly to other customers as one of a few GE licensed suppliers. In addition, the CRPs extend certain existing contracts under which the Company currently provides these services directly to GE. The Company agreed to pay $26.6 million, $80.0 million and $5.2 million as consideration for the rights related CRP1, CRP 2 and CRP 3, respectively. The Company recorded the CRP payments as an intangible asset which is recognized as a reduction of sales over the remaining life of these engine programs. This method reflects the pattern in which the economic benefits of the CRPs are realized.

The recoverability of each asset is subject to significant estimates about future revenues related to the programs' aftermarket parts and services. The Company evaluates these intangible assets for recoverability and updates amortization rates on an agreement by agreement basis for the RSPs and on an individual asset basis for the CRPs. The assets are reviewed for recoverability periodically including whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. Annually, the Company evaluates the remaining life of these assets to determine whether events and circumstances warrant a revision to the remaining periods of amortization. Management updates revenue projections, which includes comparing actual experience against projected revenue and industry projections. The potential exists that actual revenues will not meet expectations due to a change in market conditions, including, for example, the replacement of older engines with new, more fuel-efficient engines or the Company's ability to capture additional market share within the aftermarket business. A shortfall in future revenues may indicate a triggering event requiring a write down or further evaluation of the recoverability of the assets or require the Company to accelerate amortization expense prospectively dependent on the level of the shortfall. The Company has not identified any impairment of these assets. See Note 5 of the Consolidated Financial Statements.

Pension and Other Postretirement Benefits: Accounting policies and significant assumptions related to pension and other postretirement benefits are disclosed in Note 11 of the Consolidated Financial Statements. As discussed further below, the significant assumptions that impact pension and other postretirement benefits include discount rates, mortality rates and expected long-term rates of return on invested pension assets.

The following table provides a breakout of the current targeted mix of investments, by asset classification, along with the historical rates of return for each asset class and the long-term projected rates of return for the U.S. plans.

		Annual Return %	
	Target Asset Mix %	Historical (1)	Long-Term Projection
Asset class			
U.S. large cap growth equity	6	9.8	8.1
U.S. large cap value equity	5	10.3	8.1
U.S. mid cap equity	4	11.7	8.4
U.S. small cap - growth equity	2	8.1	9.2
U.S. small cap - value equity	2	11.1	9.2
Global equity	13	8.5	8.0
International Developed market equity	20	4.2	9.4
Emerging market equity	13	9.4	12.1
Fixed income - long government credit	15	8.3	3.8
Fixed income - long credit	15	8.2	4.2
Cash	5	3.2	2.6
Weighted average		8.4	7.75

(1) Historical returns based on the life of the respective index, or approximately 30 years.

The historical rates of return for the Company's defined benefit plans were calculated based upon compounded average rates of return of published indices. The target mix reflects a 65% equity investment target and a 35% target for fixed income and cash investments (in aggregate). The equity investment of 65% is more heavily on global equity investment targets, rather than U.S. targets. Based on the historical and projected rates of return of the weighted target asset mix, management selected a long-term expected rate of return on its U.S. pension assets of 7.75%. The long-term rates of return for non-U.S. plans were selected based on actual historical rates of return of published indices that were used to measure the plans' target asset allocations. Historical rates were then discounted to consider fluctuations in the historical rates as well as potential changes in the investment environment.

The discount rate used for the Company's U.S. pension plans reflects the rate at which the pension benefits could be effectively settled. At December 31, 2016 , the Company selected a discount rate of 4.50% based on a bond matching model for its U.S. pension plans. Market interest rates have decreased in 2016 as compared with 2015 and, as a result, the discount rate used to measure pension liabilities decreased from 4.65% at December 31, 2015. The discount rates for non-U.S. plans were selected based on highly rated long-term bond indices and yield curves that match the duration of the plan's benefit obligations.

A one-quarter percentage point change in the assumed long-term rate of return on the Company's U.S. pension plans as of December 31, 2016 would impact the Company's 2017 pre-tax income by approximately $0.8 million. A one-quarter percentage point decrease in the discount rate on the Company's U.S. pension plans as of December 31, 2016 would decrease the Company's 2017 pre-tax income by approximately $1.1 million. The Company reviews these and other assumptions at least annually.

The Company recorded a $8.9 million non-cash after-tax decrease in stockholders equity (through other non-owner changes to equity) to record the current year adjustments for changes in the funded status of its pension and postretirement benefit plans as required under accounting for defined benefit and other postretirement plans. This decrease in stockholders equity resulted primarily from changes in actuarial assumptions, primarily the discount rate, and unfavorable variances between expected and actual returns on pension plan assets, offset by the amortization of actuarial losses recorded earlier. During 2016 , the fair value of the Company's pension plan assets increased by $21.5 million and the projected benefit obligation increased by $32.9 million. The change in the projected benefit obligation included a $17.5 million (pre-tax) increase due to actuarial losses resulting primarily from a change in the discount rates used to measure pension liabilities, an annual interest cost of $19.5 million and a liability transfer of $26.0 million related to the acquisition of FOBOHA on August 31, 2016. These increases were partially offset by $31.2 million in benefits paid. Changes to other actuarial assumptions in 2016 did not have a material impact on our stockholders equity or projected benefit obligation. Actual pre-tax gains on total pension plan assets were $20.3 million compared with an expected pre-tax return on pension assets of $30.3 million. Pension expense for 2017 is expected to increase from $5.6 million in 2016 to $7.7 million in 2017.

Income Taxes: As of December 31, 2016 , the Company had recognized $25.4 million of deferred tax assets, net of valuation reserves. The realization of these benefits is dependent in part on the amount and timing of future taxable income in the jurisdictions where deferred tax assets reside. For those jurisdictions where the expiration date of tax loss carryforwards or the proposed operating results indicate that realization is unlikely, a valuation allowance is provided. Management currently believes that sufficient taxable income should be earned in the future to realize deferred income tax assets, net of valuation allowances recorded.

The valuation of deferred tax assets requires significant judgment. Management's assessment that the deferred tax assets will be realized represents its estimate of future results; however, there can be no assurance that such expectations will be met. Changes in management's assessment of achieving sufficient future taxable income could materially increase the Company's tax expense and could have a material adverse impact on the Company's financial condition and results of operations.

Additionally, the Company is exposed to certain tax contingencies in the ordinary course of business and records those tax liabilities in accordance with the guidance for accounting for uncertain tax positions. For tax positions where the Company believes it is more likely than not that a tax benefit will be sustained, the Company has recorded the largest amount of tax benefit with a greater than 50% likelihood of being realized. For those income tax positions where it is more likely than not that a tax benefit will not be sustained, no tax benefit has been recognized in the financial statements. See Note 13 of the Consolidated Financial Statements.

Stock-Based Compensation: The Company accounts for its stock-based employee compensation plans at fair value on the grant date and recognizes the related cost in its consolidated statement of income in accordance with accounting standards related to share-based payments. The fair values of stock options are estimated using the Black-Scholes option-pricing model based on certain assumptions. The fair values of service and performance based share awards are estimated based on the fair market value of the Company's stock price on the grant date. The fair values of market based performance share awards are estimated using the Monte Carlo valuation method. See Note 12 of the Consolidated Financial Statements.

Recent Accounting Changes

In May 2014, the Financial Accounting Standards Board ("FASB") amended its guidance related to revenue recognition. The amended guidance establishes a single comprehensive model for companies to use in accounting for revenue arising from contracts with customers and will supersede most of the existing revenue recognition guidance, including industry-specific guidance. The amended guidance clarifies that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In applying the amended guidance, an entity will (1) identify the contract(s) with a customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to the contract's performance obligations; and (5) recognize revenue when (or as) the entity satisfies a performance obligation. The amended guidance applies to all contracts with customers except those that are within the scope of other topics in the FASB Accounting Standards Codification. The amended guidance was initially effective for annual reporting periods (including interim periods within those periods) beginning after December 15, 2016 for public companies. Early adoption is not permitted. On July 9, 2015, the FASB approved a deferral of the effective date by one year to December 15, 2017 for annual reporting periods beginning after that date. The FASB also proposed permitting early adoption of the standard, but not before the original effective date of December 15, 2016. Entities have the option of using either a full retrospective or modified retrospective approach to the amended guidance. The Company currently anticipates adopting the amended guidance using the modified retrospective approach. We currently plan to adopt the amended guidance on January 1, 2018 at which time it becomes effective for the Company.

In 2015, we developed a project plan and established a cross-functional team to implement the amended guidance. We are currently reviewing our contracts and evaluating the impact of the amended guidance on each of our primary revenue streams. We expect to complete our evaluation of contracts in the first half of 2017. While we are continuing to assess all potential impacts of the amended guidance, we currently believe that the most significant impact relates to the timing of revenue recognition. We expect that a substantial portion of our businesses will continue to recognize revenue on a "point-in-time basis". We also expect, however, that a portion of our businesses with customized products will require the use of an "over time" recognition model as certain of our contracts may meet one or more of the mandatory criteria established in the amended guidance. In addition, we are in the process of identifying appropriate changes to our business processes, systems and controls to support recognition and disclosure requirements under the new standard. We expect to design any changes to such business processes, controls and systems by the middle of 2017 and implement the changes over the remainder of 2017.

In July 2015, the FASB amended its guidance related to the measurement of inventory. The amended guidance requires inventory to be measured at the lower of cost and net realizable value and thereby simplifies the current guidance of measuring inventory at the lower of cost or market. The amended guidance is effective prospectively for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted. The Company does not anticipate a material impact on its Consolidated Financial Statements.

In February 2016, the FASB amended its guidance related to lease accounting. The amended guidance requires lessees to recognize a majority of its leases on the balance sheet as a right-to-use asset. Lessees are permitted to make an accounting policy election to not recognize an asset and liability for leases with a term of twelve months or less. Lease expense will be recorded in a manner similar to current accounting. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The Company is currently evaluating the guidance to determine the impact it will have on its Consolidated Financial Statements. The Company anticipates the amended guidance will have a material impact on its assets and liabilities due to the addition of right-of-use assets and lease liabilities to the balance sheet; however, it does not expect the amended guidance to have a material impact on its cash flows or results of operations.

In August 2016, the FASB amended its guidance related to the Statement of Cash Flows. The amended guidance clarifies how certain cash receipts and cash payments should be presented on the statement of cash flows, with focus on eight specific areas in which cash flows have, in practice, been presented inconsistently. The guidance is effective for annual periods beginning after December 15, 2017 and interim periods within those fiscal years. Early adoption is permitted. The Company is currently evaluating the guidance to determine the impact it will have on its Consolidated Financial Statements.

EBITDA

Earnings before interest expense, income taxes, and depreciation and amortization ("EBITDA") for 2016 was $274.7 million compared to $246.9 million in 2015 . EBITDA is a measurement not in accordance with generally accepted accounting principles ("GAAP"). The Company defines EBITDA as net income plus interest expense, income taxes, and depreciation and amortization which the Company incurs in the normal course of business. The Company does not intend EBITDA to represent

cash flows from operations as defined by GAAP, and the reader should not consider it as an alternative to net income, net cash provided by operating activities or any other items calculated in accordance with GAAP, or as an indicator of the Company's operating performance. The Company's definition of EBITDA may not be comparable with EBITDA as defined by other companies. The Company believes EBITDA is commonly used by financial analysts and others in the industries in which the Company operates and, thus, provides useful information to investors. Accordingly, the calculation has limitations depending on its use.

Following is a reconciliation of EBITDA to the Company's net income (in millions):

	2016	2015
Net income	**$ 135.6**	$ 121.4
Add back:		
Interest expense	**11.9**	10.7
Income taxes	**47.0**	36.6
Depreciation and amortization	**80.2**	78.2
EBITDA	**$ 274.7**	$ 246.9

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Market risk is the potential economic loss that may result from adverse changes in the fair value of financial instruments. The Company's financial results could be impacted by changes in interest rates and foreign currency exchange rates, and commodity price changes. The Company uses financial instruments to hedge its exposure to fluctuations in interest rates and foreign currency exchange rates. The Company does not use derivatives for speculative or trading purposes.

The Company's long-term debt portfolio consists of fixed-rate and variable-rate instruments and is managed to reduce the overall cost of borrowing while also minimizing the effect of changes in interest rates on near-term earnings. The Company's primary interest rate risk is derived from its outstanding variable-rate debt obligations. Financial instruments have been used by the Company to hedge its exposures to fluctuations in interest rates. In April 2012, the Company entered into five-year interest rate swap agreements transacted with three banks which together convert the interest on the first $100.0 million of borrowings under the Company's Amended Credit Agreement from a variable rate plus the borrowing spread to a fixed rate of 1.03% plus the borrowing spread for the purpose of mitigating its exposure to variable interest rates. The result of a hypothetical 100 basis point increase in the interest rate on the average bank borrowings of the Company's variable-rate debt during 2016 would have reduced annual pretax profit by $3.0 million.

At December 31, 2016 , the fair value of the Company's fixed-rate debt was $108.9 million, compared with its carrying amount of $106.8 million. The Company estimates that a 100 basis point decrease in market interest rates at December 31, 2016 would have increased the fair value of the Company's fixed rate debt to $116.1 million.

The Company has manufacturing, sales and distribution facilities around the world and thus makes investments and conducts business transactions denominated in various currencies. The Company is exposed primarily to financial instruments denominated in currencies other than the functional currency at its international locations. A 10% adverse change in foreign currencies relative to the U.S dollar at December 31, 2016 would have resulted in a $1.4 million loss in the fair value of those financial instruments. At December 31, 2016 , the Company held $ 66.4 million of cash and cash equivalents, the majority of which is held by foreign subsidiaries.

Foreign currency commitments and transaction exposures are managed at the operating units as an integral part of their businesses in accordance with a corporate policy that addresses acceptable levels of foreign currency exposures.

Additionally, to reduce foreign currency exposure, management generally maintains the majority of foreign cash and short-term investments in functional currency and uses forward currency contracts for non-functional currency denominated monetary assets and liabilities and anticipated transactions in an effort to reduce the effect of the volatility of changes in foreign exchange rates on the income statement. In historically weaker currency countries, such as Brazil and Mexico, management assesses the strength of these currencies relative to the U.S. dollar and may elect during periods of local currency weakness to invest excess cash in U.S. dollar-denominated instruments.

The Company's exposure to commodity price changes relates to certain manufacturing operations that utilize high-grade steel spring wire, stainless steel, titanium, Inconel, Hastelloys and other specialty metals. The Company attempts to manage its exposure to price increases through its procurement and sales practices.

Item 8. Financial Statements and Supplementary Data

BARNES GROUP INC.
CONSOLIDATED STATEMENTS OF INCOME
(Dollars in thousands, except per share data)

	Years Ended December 31,		
	2016	**2015**	**2014**
Net sales	**$ 1,230,754**	$ 1,193,975	$ 1,262,006
Cost of sales	**790,299**	782,817	829,648
Selling and administrative expenses	**248,277**	242,762	252,384
	1,038,576	1,025,579	1,082,032
Operating income	**192,178**	168,396	179,974
Interest expense	**11,883**	10,698	11,392
Other expense (income), net	**(2,326)**	(248)	2,082
Income from continuing operations before income taxes	**182,621**	157,946	166,500
Income taxes	**47,020**	36,566	45,959
Income from continuing operations	**135,601**	121,380	120,541
Loss from discontinued operations, net of income taxes of $0, $0 and $315, respectively	**—**	—	(2,171)
Net income	**$ 135,601**	$ 121,380	$ 118,370
Per common share:			
Basic:			
Income from continuing operations	**$ 2.50**	$ 2.21	$ 2.20
Loss from discontinued operations, net of income taxes	**—**	—	(0.04)
Net income	**$ 2.50**	$ 2.21	$ 2.16
Diluted:			
Income from continuing operations	**$ 2.48**	$ 2.19	$ 2.16
Loss from discontinued operations, net of income taxes	**—**	—	(0.04)
Net income	**$ 2.48**	$ 2.19	$ 2.12
Dividends	**$ 0.51**	$ 0.48	$ 0.45
Weighted average common shares outstanding:			
Basic	**54,191,013**	55,028,063	54,791,030
Diluted	**54,631,313**	55,513,219	55,723,267

See accompanying notes.

BARNES GROUP INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Dollars in thousands)

	Years Ended December 31,		
	2016	**2015**	**2014**
Net income	**$ 135,601**	$ 121,380	$ 118,370
Other comprehensive loss, net of tax			
Unrealized (loss) gain on hedging activities, net of tax (1)	**(342)**	847	(213)
Foreign currency translation adjustments, net of tax (2)	**(48,367)**	(54,232)	(83,168)
Defined benefit pension and other postretirement benefits, net of tax (3)	**(8,867)**	9,586	(42,016)
Total other comprehensive loss, net of tax	**(57,576)**	(43,799)	(125,397)
Total comprehensive income (loss)	**$ 78,025**	$ 77,581	$ (7,027)

(1) Net of tax of $(42) , $227 and $(45) for the years ended December 31, 2016, 2015 and 2014, respectively.

(2) Net of tax of $(833) , $(1,777) and $(3,292) for the years ended December 31, 2016, 2015 and 2014, respectively.

(3) Net of tax of $(4,687) , $3,916 and $(24,799) for the years ended December 31, 2016, 2015 and 2014, respectively.

See accompanying notes.

BARNES GROUP INC.
CONSOLIDATED BALANCE SHEETS
(Dollars in thousands)

	December 31,	
	2016	**2015**
Assets		
Current assets		
Cash and cash equivalents	**$ 66,447**	$ 83,926
Accounts receivable, less allowances (2016 – $3,992; 2015 – $4,085)	**287,123**	261,757
Inventories	**227,759**	208,611
Deferred income taxes	**—**	24,825
Prepaid expenses and other current assets	**27,163**	32,469
Total current assets	**608,492**	611,588
Deferred income taxes	**25,433**	1,139
Property, plant and equipment, net	**334,489**	308,856
Goodwill	**633,436**	587,992
Other intangible assets, net	**522,258**	528,322
Other assets	**13,431**	23,969
Total assets	**$ 2,137,539**	$ 2,061,866
Liabilities and Stockholders' Equity		
Current liabilities		
Notes and overdrafts payable	**$ 30,825**	$ 22,680
Accounts payable	**112,024**	97,035
Accrued liabilities	**156,967**	131,320
Long-term debt – current	**2,067**	1,515
Total current liabilities	**301,883**	252,550
Long-term debt	**468,062**	485,711
Accrued retirement benefits	**109,350**	112,888
Deferred income taxes	**66,446**	62,364
Other liabilities	**23,440**	20,600
Commitments and contingencies (Note 20)		
Stockholders' equity		
Common stock – par value $0.01 per share		
Authorized: 150,000,000 shares		
Issued: at par value (2016 – 62,692,403 shares; 2015 – 62,071,144 shares)	**627**	621
Additional paid-in capital	**443,235**	427,558
Treasury stock, at cost (2016 – 8,889,947 shares; 2015 – 8,206,683 shares)	**(251,827)**	(226,421)
Retained earnings	**1,177,151**	1,069,247
Accumulated other non-owner changes to equity	**(200,828)**	(143,252)
Total stockholders' equity	**1,168,358**	1,127,753
Total liabilities and stockholders' equity	**$ 2,137,539**	$ 2,061,866

See accompanying notes.

BARNES GROUP INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Dollars in thousands)

	Years Ended December 31,		
	2016	**2015**	**2014**
Operating activities:			
Net income	**$ 135,601**	$ 121,380	$ 118,370
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	**80,154**	78,242	81,395
Amortization of convertible debt discount	**—**	—	731
(Gain) loss on disposition of property, plant and equipment	**(349)**	(1,128)	143
Stock compensation expense	**11,493**	9,258	7,603
Loss on the sale of businesses	**—**	—	1,586
Pension lump-sum settlement charge	**—**	9,856	—
Changes in assets and liabilities, net of the effects of acquisitions:			
Accounts receivable	**(23,057)**	14,027	(21,367)
Inventories	**1,989**	(1,190)	(10,092)
Prepaid expenses and other current assets	**569**	(2,645)	(7,137)
Accounts payable	**11,778**	(2,936)	8,123
Accrued liabilities	**15,825**	(14,166)	29,290
Deferred income taxes	**(2,210)**	3,121	(9,841)
Long-term retirement benefits	**(15,492)**	1,081	(7,584)
Other	**1,345**	2,575	4,933
Net cash provided by operating activities	**217,646**	217,475	196,153
Investing activities:			
Proceeds from disposition of property, plant and equipment	**780**	3,442	849
Payments for the sale of businesses	**—**	—	(1,181)
Change in restricted cash	**—**	—	4,886
Capital expenditures	**(47,577)**	(45,982)	(57,365)
Business acquisitions, net of cash acquired	**(128,613)**	(51,954)	—
Component Repair Program payments	**(4,100)**	(21,000)	(70,100)
Other	**—**	—	(1,338)
Net cash used in investing activities	**(179,510)**	(115,494)	(124,249)
Financing activities:			
Net change in other borrowings	**8,375**	14,680	7,009
Payments on long-term debt	**(321,506)**	(171,198)	(332,336)
Proceeds from the issuance of long-term debt	**303,277**	159,264	293,291
Payment of assumed liability to Otto Männer Holding AG	**—**	—	(19,796)
Premium paid on convertible debt redemption	**—**	—	(14,868)
Proceeds from the issuance of common stock	**4,611**	11,425	11,460
Common stock repurchases	**(20,520)**	(52,103)	(8,389)
Dividends paid	**(27,435)**	(26,176)	(24,464)
Withholding taxes paid on stock issuances	**(4,885)**	(4,913)	(4,367)
Other	**4,771**	9,850	(338)
Net cash used by financing activities	**(53,312)**	(59,171)	(92,798)
Effect of exchange rate changes on cash flows	**(2,303)**	(4,923)	(3,923)
(Decrease) increase in cash and cash equivalents	**(17,479)**	37,887	(24,817)
Cash and cash equivalents at beginning of year	**83,926**	46,039	70,856
Cash and cash equivalents at end of year	**$ 66,447**	$ 83,926	$ 46,039

Supplemental Disclosure of Cash Flow Information:

Non-cash investing activities in 2015 and 2014 included the acquisition of $3,200 and $19,000 , respectively, of intangible assets, and the recognition of the corresponding liabilities, in connection with the Component Repair Programs.

See accompanying notes.

BARNES GROUP INC.
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(Dollars and shares in thousands)

	Common Stock (Number of Shares)	Common Stock (Amount)	Additional Paid-In Capital	Treasury Stock (Number of Shares)	Treasury Stock	Retained Earnings	Accumulated Other Non-Owner Changes to Equity	Total Stockholders' Equity
January 1, 2014	60,306	$ 603	$ 390,347	6,389	$ (156,649)	$ 881,169	$ 25,944	$ 1,141,414
Comprehensive income						118,370	(125,397)	(7,027)
Dividends paid						(24,464)		(24,464)
Common stock repurchases				221	(8,389)			(8,389)
Convertible debt redemption, net of tax			(8,666)	—	—			(8,666)
Employee stock plans	924	9	23,844	119	(4,367)	(561)		18,925
December 31, 2014	61,230	612	405,525	6,729	(169,405)	974,514	(99,453)	1,111,793
Comprehensive income						121,380	(43,799)	77,581
Dividends paid						(26,176)		(26,176)
Common stock repurchases				1,353	(52,103)			(52,103)
Employee stock plans	841	9	22,033	125	(4,913)	(471)		16,658
December 31, 2015	62,071	621	427,558	8,207	(226,421)	1,069,247	(143,252)	1,127,753
Comprehensive income						**135,601**	**(57,576)**	**78,025**
Dividends paid						**(27,435)**		**(27,435)**
Common stock repurchases				**551**	**(20,520)**			**(20,520)**
Cumulative effect of change in accounting guidance (Note 12)						**198**		**198**
Employee stock plans	**621**	**6**	**15,677**	**132**	**(4,886)**	**(460)**		**10,337**
December 31, 2016	**62,692**	**$ 627**	**$ 443,235**	**8,890**	**$ (251,827)**	**$ 1,177,151**	**$ (200,828)**	**$ 1,168,358**

See accompanying notes.

BARNES GROUP INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(All dollar amounts included in the notes are stated in thousands except per share data and the tables in Note 19)

1. Summary of Significant Accounting Policies

General: The preparation of consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Certain reclassifications have been made to prior year amounts.

Consolidation: The accompanying consolidated financial statements include the accounts of the Company and all of its subsidiaries. Intercompany transactions and account balances have been eliminated.

Revenue recognition : Sales and related cost of sales are recognized when products are shipped or delivered to customers depending upon when title and risk of loss have passed. Service revenue is recognized when the related services are performed. In the aerospace manufacturing businesses, the Company recognizes revenue based on the units-of-delivery method in accordance with accounting standards related to accounting for performance of construction-type and certain production-type contracts. Management fees related to the aerospace aftermarket Revenue Sharing Programs ("RSPs") are satisfied through an agreed upon reduction from the sales price of each of the related spare parts. These fees recognize our customer's necessary performance of engine program support activities, such as spare parts administration, warehousing and inventory management, and customer support, and are not separable from our sale of products, and accordingly, they are reflected as a reduction to sales, rather than as costs incurred, when revenues are recognized.

Operating expenses: The Company includes manufacturing labor, material, manufacturing overhead and costs of its distribution network within cost of sales. Other costs, including selling personnel costs and commissions, and other general and administrative costs of the Company are included within selling and administrative expenses. Depreciation and amortization expense is allocated between cost of sales and selling and administrative expenses.

Cash and cash equivalents: Cash in excess of operating requirements is invested in short-term, highly liquid, income-producing investments. All highly liquid investments purchased with an original maturity of three months or less are considered cash equivalents. Cash equivalents are carried at cost which approximates fair value.

Inventories: Inventories are valued at the lower of cost, determined on a first-in, first-out basis, or market. Loss provisions, if any, on aerospace contracts are established when estimable. Loss provisions are based on the projected excess of manufacturing costs over the net revenues of the products or group of related products under contract or purchase order.

Property, plant and equipment: Property, plant and equipment is stated at cost. Depreciation is recorded over estimated useful lives, generally ranging from 20 to 50 years for buildings, three to five years for computer equipment and four to 12 years for machinery and equipment. The straight-line method of depreciation was adopted for all property, plant and equipment placed in service after March 31, 1999. For property, plant and equipment placed into service prior to April 1, 1999, depreciation is calculated using accelerated methods. The Company assesses the impairment of property, plant and equipment subject to depreciation whenever events or changes in circumstances indicate the carrying value may not be recoverable.

Goodwill: Goodwill represents the excess purchase cost over the fair value of net assets of companies acquired in business combinations. Goodwill is considered an indefinite-lived asset. Goodwill is subject to impairment testing in accordance with accounting standards governing such on an annual basis, in the second quarter, or more frequently if an event or change in circumstances indicates that the fair value of a reporting unit has been reduced below its carrying value. Based on the assessments performed during 2016, there was no goodwill impairment.

Aerospace Aftermarket Programs: The Company participates in aftermarket RSPs under which the Company receives an exclusive right to supply designated aftermarket parts over the life of the related aircraft engine program. As consideration, the Company has paid participation fees, which are recorded as long-lived intangible assets. The Company records amortization of the related intangible asset as sales dollars are being earned based on a proportional sales dollar method. Specifically, this method amortizes each asset as a reduction to revenue based on the proportion of sales under a program in a given period to the estimated aggregate sales dollars over the life of that program.

The Company also entered into Component Repair Programs ("CRPs") that provide for, among other items, the right to sell certain aftermarket component repair services for CFM56, CF6, CF34 and LM engines directly to other customers as one of a few GE licensed suppliers. In addition, the CRPs extended certain existing contracts under which the Company currently provides these services directly to GE. The Company recorded the consideration for these rights as an intangible asset that is amortized as a reduction to sales over the remaining life of these engine programs. This method reflects the pattern in which the economic benefits of the RSPs and the CRPs are realized.

The recoverability of each asset is subject to significant estimates about future revenues related to the program's aftermarket parts and services. The Company evaluates these intangible assets for recoverability and updates amortization rates on an agreement by agreement basis for the RSPs and on an individual asset program basis for the CRPs. The assets are reviewed for recoverability periodically including whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. Annually, the Company evaluates the remaining useful life of these assets to determine whether events and circumstances warrant a revision to the remaining periods of amortization. Management updates revenue projections, which includes comparing actual experience against projected revenue and industry projections. The potential exists that actual revenues will not meet expectations due to a change in market conditions including, for example, the replacement of older engines with new, more fuel-efficient engines or the Company's ability to maintain market share within the Aftermarket business. A shortfall in future revenues may indicate a triggering event requiring a write down or further evaluation of the recoverability of the assets or require the Company to accelerate amortization expense prospectively dependent on the level of the shortfall. The Company has not identified any impairment of these assets.

Other Intangible Assets: Other intangible assets consist primarily of the Aerospace Aftermarket Programs, as discussed above, customer relationships, tradenames, patents and proprietary technology. These intangible assets, with the exception of certain tradenames, have finite lives and are amortized over the periods in which they provide benefit. The Company assesses the impairment of long-lived assets, including identifiable intangible assets subject to amortization, whenever significant events or significant changes in circumstances indicate the carrying value may not be recoverable. Tradenames with indefinite lives are subject to impairment testing in accordance with accounting standards governing such on an annual basis, in the second quarter, or more frequently if an event or change in circumstances indicates that the fair value of the asset has been reduced below its carrying value. Based on the assessment performed during 2016, there were no impairments of other intangible assets. See Note 5 of the Consolidated Financial Statements.

Derivatives: Accounting standards related to the accounting for derivative instruments and hedging activities require that all derivative instruments be recorded on the balance sheet at fair value. Foreign currency contracts may qualify as fair value hedges of unrecognized firm commitments, cash flow hedges of recognized assets and liabilities or anticipated transactions, or a hedge of a net investment. Changes in the fair market value of derivatives that qualify as fair value hedges or cash flow hedges are recorded directly to earnings or accumulated other non-owner changes to equity, depending on the designation. Amounts recorded to accumulated other non-owner changes to equity are reclassified to earnings in a manner that matches the earnings impact of the hedged transaction. Any ineffective portion, or amounts related to contracts that are not designated as hedges, are recorded directly to earnings. The Company's policy for classifying cash flows from derivatives is to report the cash flows consistent with the underlying hedged item.

Foreign currency: Assets and liabilities of international operations are translated at year-end rates of exchange; revenues and expenses are translated at average rates of exchange. The resulting translation gains or losses are reflected in accumulated other non-owner changes to equity within stockholders' equity. Net foreign currency transaction gains of $1,873 and $505 in 2016 and 2015 , respectively, and a loss of $1,466 in 2014 , were included in other expense (income), net in the Consolidated Statements of Income.

Research and Development: Costs are incurred in connection with efforts aimed at discovering and implementing new knowledge that is critical to developing new products, processes or services, significantly improving existing products or services, and developing new applications for existing products and services. Research and development expenses for the creation of new and improved products and services were $12,913 , $12,688 and $15,782 , for the years 2016 , 2015 and 2014 , respectively, and are included in selling and administrative expense.

2. Acquisitions

The Company has acquired a number of businesses during the past two years . The results of operations of these acquired businesses have been included in the consolidated results from the respective acquisition dates. The purchase prices for these

acquisitions have been allocated to tangible and intangible assets and liabilities of the businesses based upon estimates of their respective fair values.

In the third quarter of 2016, the Company, through three of its subsidiaries (collectively, the “Purchaser”), completed its acquisition of the molds business of Adval Tech Holding AG and Adval Tech Holdings (Asia) Pte. Ltd. ("FOBOHA"). FOBOHA is headquartered in Haslach, Germany and operates out of three manufacturing facilities located in Germany, Switzerland and China. The Company completed its purchase of the Germany and Switzerland businesses on August 31, 2016. The purchase of the China business required government approval which was granted on September 30, 2016. On October 7, 2016, shares of the China operations were subsequently transferred to the Company upon payment, per the terms of the Share Purchase Agreement for these respective operations ("China SPA"). The Company, pursuant to the terms and conditions within the Share Purchase Agreement ("FOBOHA SPA"), assumed economic control of the China business effective August 31, 2016. Having both economic control and the benefits and risks of ownership during the period from August 31, 2016 through September 30, 2016, the Company included the results of the China business within the consolidated results of operations of the Company during this period.

FOBOHA specializes in the development and manufacture of complex plastic injection molds for packaging, medical, consumer and automotive applications. The Company acquired FOBOHA for an aggregate cash purchase price of CHF 136,337 ($138,596) which was financed using cash on hand and borrowings under the Company's revolving credit facility. The purchase price includes preliminary adjustments under the terms of the FOBOHA SPA, including approximately CHF 11,342 ($11,530) related to cash acquired and is subject to post closing adjustments under the terms of the FOBOHA SPA. In connection with the acquisition, the Company recorded $39,800 of intangible assets and $73,688 of goodwill. See Note 5 to the Consolidated Financial Statements.

The Company incurred $2,193 of acquisition-related costs during the year ended December 31, 2016 related to the FOBOHA acquisition. These costs include due diligence costs and transaction costs to complete the acquisition and have been recognized in the Company's Consolidated Statements of Income as selling and administrative expenses. Pro forma operating results for the FOBOHA acquisition are not presented as the results would not be significantly different than historical results.

The operating results of FOBOHA have been included in the Consolidated Statements of Income for the period ended December 31, 2016 since the date of acquisition. The Company reported $18,348 in net sales for FOBOHA for the year ended December 31, 2016. FOBOHA results have been included within the Industrial segment's operating profit.

In the fourth quarter of 2015, the Company, itself and through two of its subsidiaries, completed the acquisition of privately held Priamus System Technologies AG and two of its subsidiaries (collectively, "Priamus") from Growth Finance AG. Priamus, which has approximately 40 employees, is headquartered in Schaffhausen, Switzerland and has direct sales and service offices in the U.S. and Germany. Priamus is a technology leader in the development of advanced process control systems for the plastic injection molding industry and services many of the world's highest quality plastic injection molders in the medical, automotive, consumer goods, electronics and packaging markets. Priamus is being integrated into our Industrial segment. The Company acquired Priamus for an aggregate cash purchase price of CHF 9,879 ($10,111) which was financed using cash on hand and borrowings under the Company's revolving credit facility. The purchase price includes adjustments under the terms of the Share Purchase Agreement, including CHF 1,556 ($1,592) related to cash acquired.

In the third quarter of 2015, the Company, through one of its subsidiaries, completed the acquisition of the Thermoplay business ("Thermoplay") by acquiring all of the capital stock of privately held HPE S.p.A., the parent Company through which Thermoplay operates. Thermoplay’s headquarters and manufacturing facility are located in Pont-Saint-Martin in Aosta, Italy, with technical service capabilities in China, India, France, Germany, United Kingdom, Portugal, and Brazil. Thermoplay, which is being integrated into our Industrial segment, specializes in the design, development, and manufacturing of hot runner solutions for plastic injection molding, primarily in the packaging, automotive, and medical end markets. The Company acquired Thermoplay for an aggregate cash purchase price of €58,066 ($63,690), pursuant to the terms of the Sale and Purchase Agreement ("SPA"), which was financed using cash on hand and borrowings under the Company's revolving credit facility. The purchase price includes adjustments under the terms of the SPA, including €17,054 ($18,706) related to cash acquired.

The Company incurred $2,195 and $574 of acquisition-related costs during the year ended December 31, 2015 related to the Thermoplay and Priamus acquisitions, respectively. These costs include due diligence costs and transaction costs to complete the acquisitions, and have been recognized in the Company's Consolidated Statements of Income as selling and

administrative expenses. Pro forma operating results for the 2015 acquisitions are not presented since the results would not be significantly different than historical results.

The operating results of Thermoplay and Priamus have been included in the Consolidated Statements of Income for the period ended December 31, 2015, since the August 7, 2015 and the October 1, 2015 dates of acquisition, respectively. The Company reported $13,593 and $2,028 in net sales for Thermoplay and Priamus, respectively, for the year ended December 31, 2015.

3. Inventories

Inventories at December 31 consisted of:

	2016	2015
Finished goods	**$ 71,100**	$ 76,836
Work-in-process	**98,246**	77,061
Raw materials and supplies	**58,413**	54,714
	$ 227,759	$ 208,611

4. Property, Plant and Equipment

Property, plant and equipment at December 31 consisted of:

	2016	2015
Land	**$ 19,952**	$ 19,153
Buildings	**169,695**	156,294
Machinery and equipment	**572,540**	539,360
	762,187	714,807
Less accumulated depreciation	**(427,698)**	(405,951)
	$ 334,489	$ 308,856

Depreciation expense was $43,165 , $39,654 and $41,875 during 2016 , 2015 and 2014 , respectively.

5. Goodwill and Other Intangible Assets

Goodwill: The following table sets forth the change in the carrying amount of goodwill for each reportable segment and the Company:

	Industrial	Aerospace	Total Company
January 1, 2015	$ 564,163	$ 30,786	$ 594,949
Acquisition-related	22,798	—	22,798
Foreign currency translation	(29,755)	—	(29,755)
December 31, 2015	557,206	30,786	587,992
Acquisition-related	**73,688**	**—**	**73,688**
Foreign currency translation	**(28,244)**	**—**	**(28,244)**
December 31, 2016	**$ 602,650**	**$ 30,786**	**$ 633,436**

Of the $633,436 of goodwill at December 31, 2016 , $43,860 represents the original tax deductible basis.

The increase in goodwill of $73,688 during 2016 is due to the acquisition of FOBOHA on August 31, 2016, which is included in the Industrial segment. The amount allocated to goodwill reflects the benefits that the Company expects to realize from synergies created by combining the operations of FOBOHA, future enhancements to technology, geographical expansion and FOBOHA's assembled workforce. None of the recognized goodwill is expected to be deductible for income tax purposes.

The final purchase price is subject to post-closing adjustments, therefore goodwill acquired may require adjustment accordingly.

Other Intangible Assets: Other intangible assets at December 31 consisted of:

		2016		2015	
	Range of Life-Years	Gross Amount	Accumulated Amortization	Gross Amount	Accumulated Amortization
Amortized intangible assets:					
Revenue Sharing Programs	Up to 30	**$ 293,700**	**$ (95,701)**	$ 293,700	$ (84,629)
Component Repair Program	Up to 30	**111,839**	**(10,497)**	111,839	(6,054)
Customer lists/relationships	10-16	**215,266**	**(53,198)**	194,566	(41,786)
Patents and technology	4-14	**84,052**	**(37,897)**	69,352	(29,551)
Trademarks/trade names	10-30	**11,950**	**(9,967)**	11,950	(9,412)
Other	Up to 15	**20,551**	**(16,338)**	20,551	(15,413)
		737,358	**(223,598)**	701,958	(186,845)
Unamortized intangible asset:					
Trade names		**42,770**	—	38,370	—
Foreign currency translation		**(34,272)**	**—**	(25,161)	—
Other intangible assets		**$ 745,856**	**$ (223,598)**	$ 715,167	$ (186,845)

The Company entered into Component Repair Programs ("CRPs") with General Electric ("GE") during the fourth quarter of 2013 ("CRP 1"), the second quarter of 2014 ("CRP 2") and the fourth quarter of 2015 ("CRP 3"). The CRPs provide for, among other items, the right to sell certain aftermarket component repair services for CFM56, CF6, CF34 and LM engines directly to other customers as one of a few GE licensed suppliers. In addition, the CRPs extend certain existing contracts under which the Company currently provides these services directly to GE.

The Company agreed to pay $26,639 as consideration for the rights related to CRP 1. Of this balance, the Company paid $16,639 in the fourth quarter of 2013, $9,100 in the fourth quarter of 2014 and $900 in the first quarter of 2016. The Company agreed to pay $80,000 as consideration for the rights related to CRP 2. The Company paid $41,000 in the second quarter of 2014, $20,000 in the fourth quarter of 2014 and $19,000 in the second quarter of 2015. The Company agreed to pay $5,200 as consideration for the rights related to CRP 3. The Company paid $2,000 in the fourth quarter of 2015 and $3,200 in the fourth quarter of 2016. The Company recorded the CRP consideration as an intangible asset which is recognized as a reduction of sales over the remaining useful life of these engine programs.

In connection with the acquisition of FOBOHA in August 2016, the Company recorded intangible assets of $39,800 , which includes $20,700 of customer relationships, $14,700 of patents and technology and $4,400 of an indefinite life trade name. The weighted-average useful lives of the acquired assets were 16 years and 7 years, respectively.

Amortization of intangible assets for the years ended December 31, 2016 , 2015 and 2014 was $36,753 , $38,502 and $37,125 , respectively. Estimated amortization of intangible assets for future periods is as follows: 2017 - $39,000 ; 2018 - $40,000 ; 2019 - $39,000 ; 2020 - $36,000 and 2021 - $36,000 .

The Company has entered into a number of aftermarket RSP agreements each of which is with GE. See Note 1 of the Consolidated Financial Statements for a further discussion of these Revenue Sharing Programs. As of December 31, 2016 , the Company has made all required participation fee payments under the aftermarket RSP agreements.

6. Accrued Liabilities

Accrued liabilities at December 31 consisted of:

	2016	2015
Payroll and other compensation	**$ 37,560**	$ 27,186
Deferred revenue and customer advances	**34,812**	16,453
CRP Accrual	**—**	4,100
Pension and other postretirement benefits	**8,261**	8,444
Accrued income taxes	**26,477**	25,682
Other	**49,857**	49,455
	$ 156,967	$ 131,320

7. Debt and Commitments

Long-term debt and notes and overdrafts payable at December 31 consisted of:

	2016		2015	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Revolving credit agreement	**363,300**	**364,775**	379,700	375,188
3.97% Senior Notes	**100,000**	**101,598**	100,000	102,484
Borrowings under lines of credit and overdrafts	**30,825**	**30,825**	22,680	22,680
Capital leases	**5,413**	**5,902**	7,105	7,503
Other foreign bank borrowings	**1,416**	**1,428**	421	410
	500,954	**504,528**	509,906	508,265
Less current maturities	**(32,892)**		(24,195)	
Long-term debt	**$ 468,062**		$ 485,711	

The Company’s long-term debt portfolio consists of fixed-rate and variable-rate instruments and is managed to reduce the overall cost of borrowing and to mitigate fluctuations in interest rates. Among other things, interest rate fluctuations impact the market value of the Company’s fixed-rate debt.

In September 2013, the Company entered into a second amendment to its fifth amended and restated revolving credit agreement (the "Amended Credit Agreement") and retained Bank of America, N.A. as the Administrative Agent for the lenders. The $750,000 Amended Credit Agreement matures in September 2018 . The Amended Credit Agreement adds a new foreign subsidiary borrower in Germany, Barnes Group Acquisition GmbH, and includes an accordion feature to increase the borrowing availability of the Company to $1,000,000 . The Company may exercise the accordion feature upon request to the Administrative Agent as long as an event of default has not occurred or is continuing. The borrowing availability of $750,000 , pursuant to the terms of the Amended Credit Agreement, allows for Euro-denominated borrowings equivalent to $500,000 . Borrowings under the Amended Credit Agreement bear interest at LIBOR plus a spread ranging from 1.10% to 1.70% depending on the Company's leverage ratio at prior quarter end. The Company paid fees and expenses of $1,261 in conjunction with executing the second amendment in 2013. Such fees were deferred and are being amortized into interest expense over the term of the Agreement.

Borrowings and availability under the Amended Credit Agreement were $ 363,300 and $ 386,700 , respectively, at December 31, 2016 and $379,700 and $370,300 , respectively, at December 31, 2015 . The average interest rate on these borrowings was 1.86% and 1.50% on December 31, 2016 and 2015, respectively. The fair value of the borrowings is based on observable Level 2 inputs. The borrowings were valued using discounted cash flows based upon the Company's estimated interest costs for similar types of borrowings. In 2016, the Company borrowed $100,000 under the Amended Credit Facility through an international subsidiary. The proceeds were distributed to the Parent Company and subsequently used to pay down U.S. borrowings under the Amended Credit Agreement.

On October 15, 2014 , the Company entered into a Note Purchase Agreement (“Note Purchase Agreement”), among the Company and New York Life Insurance Company, New York Life Insurance and Annuity Corporation and New York Life Insurance and Annuity Corporation Institutionally Owned Life Insurance Separate Account, as purchasers, for the issuance of

$100,000 aggregate principal amount of 3.97% Senior Notes due October 17, 2024 (the " 3.97% Senior Notes"). The Company completed funding of the transaction and issued the 3.97% Notes on October 17, 2014 . The Company also entered into a third amendment to its fifth amended and restated revolving credit agreement during October 2014, which allowed for the issuance of the Note Purchase Agreement.

The 3.97% Senior Notes are senior unsecured obligations of the Company and will pay interest semi-annually on April 17 and October 17 of each year at an annual rate of 3.97% . The 3.97% Senior Notes will mature on October 17, 2024 unless earlier prepaid in accordance with their terms. Subject to certain conditions, the Company may, at its option, prepay all or any part of the 3.97% Senior Notes in an amount equal to 100% of the principal amount of the 3.97% Senior Notes so prepaid, plus any accrued and unpaid interest to the date of prepayment, plus the Make-Whole Amount, as defined in the Note Purchase Agreement, with respect to such principal amount being prepaid. The fair value of the 3.97% Senior Notes was determined using the US Treasury yield and a long-term credit spread for similar types of borrowings, that represent Level 2 observable inputs.

The Company's borrowing capacity remains limited by various debt covenants in the Amended Credit Agreement and the Note Purchase Agreement (the "Agreements"). The Agreements contain customary affirmative and negative covenants, including, among others, limitations on indebtedness, liens, investments, restricted payments, dispositions and business activities. The Agreements require the Company to maintain a ratio of Consolidated Senior Debt, as defined, to Consolidated EBITDA, as defined, of not more than 3.25 times at the end of each fiscal quarter, provided that such ratio may increase to 3.50 times following the consummation of certain acquisitions. In addition, the Agreements require the Company to maintain (i) a ratio of Consolidated Total Debt, as defined, to Consolidated EBITDA of not more than 4.00 times at the end of each fiscal quarter, provided that such ratio may increase to 4.25 times following the consummation of certain acquisitions and (ii) a ratio of Consolidated EBITDA to Consolidated Cash Interest Expense, as defined, of not less than 4.25 times at the end of each fiscal quarter. At December 31, 2016, the Company was in compliance with all covenants under the Agreements and continues to monitor its future compliance based on current and future economic conditions.

In February 2017, the Company entered into the fourth amendment of its fifth amended and restated revolving credit agreement (the "the Fourth Amendment") and retained Bank of America, N.A as the Administrative Agent for the lenders. The Fourth Amendment increases the facility to $850,000 and extends the maturity date to February 2022. The Fourth Amendment also increases the existing accordion feature, allowing the Company to request additional borrowings of up to $350,000 . The Company may exercise the accordion feature upon request to the Administrative Agent as long as an event of default has not occurred or is not continuing. The borrowing availability of $850,000 , pursuant to the terms of the Fourth Amendment, allow for multi- currency borrowing which includes euro, sterling or Swiss franc borrowing, up to $600,000 . Depending on the Company's consolidated leverage ratio, and at the election of the Company, borrowings under the Fourth Amendment will bear interest at either LIBOR plus a margin of between 1.10% and 1.70% or the base rate plus a margin of 0.10% to 0 .70% . The Fourth Amendment generally requires the Company to maintain a ratio of Consolidated Senior Debt, as defined, to Consolidated EBITDA of not more than 3.25 times, a ratio of Consolidated Total Debt, as defined, to Consolidated EBITDA, as defined, of not more than 3.75 times, and a ratio of Consolidated EBITDA to Consolidated Cash Interest Expense, as defined, of not less than 4.25 times, in each case at the end of each fiscal quarter; provided that these debt to EBITDA ratios are permitted to increase for a period of four fiscal quarters after the closing of certain permitted acquisitions.

In addition, the Company has approximately $55,000 in uncommitted short-term bank credit lines ("Credit Lines") and overdraft facilities. Under the Credit Lines, $30,700 was borrowed at December 31, 2016 at an average interest rate of 1.96% and $22,500 was borrowed at December 31, 2015 at an average interest rate of 1.56% . The Company had also borrowed $125 and $180 under the overdraft facilities at December 31, 2016 and 2015 , respectively. Repayments under the Credit Lines are due within one month after being borrowed. Repayments of the overdrafts are generally due within two days after being borrowed. The carrying amounts of the Credit Lines and overdrafts approximate fair value due to the short maturities of these financial instruments.

The Company has capital leases at the Thermoplay and Männer businesses. The fair value of the capital leases are based on observable Level 2 inputs. These instruments are valued using discounted cash flows based upon the Company's estimated interest costs for similar types of borrowings.

At December 31, 2016 and 2015, the Company also had other foreign bank borrowings of $1,416 and $421 , respectively. The fair value of the foreign bank borrowings was based on observable Level 2 inputs. These instruments were valued using discounted cash flows based upon the Company's estimated interest costs for similar types of borrowings.

Long-term debt and notes payable as of December 31, 2016 are payable, based on the then current Agreement, as follows: $32,892 in 2017 , $364,467 in 2018 , $838 in 2019 , $445 in 2020 , $528 in 2021 and $101,784 thereafter. The 3.97% Senior Notes are due in 2024 according to their maturity date. Based on the execution of the Fourth Amendment, $363,300 of the $364,467 due in 2018 will require payment in 2022, consistent with the extension of the maturity date of this Amendment.

In addition, the Company had outstanding letters of credit totaling $7,320 at December 31, 2016 .

Interest paid was $11,471 , $10,550 and $10,471 in 2016 , 2015 and 2014 , respectively. Interest capitalized was $324 , $422 and $359 in 2016 , 2015 and 2014 , respectively, and is being depreciated over the lives of the related fixed assets.

During the second quarter of 2014, the 3.375% Senior Subordinated Convertible Notes ("Notes") were eligible for conversion due to meeting the conversion price eligibility requirement and on March 20, 2014, the Company formally notified the note holders that they were entitled to convert the Notes. On June 16, 2014, $224 (par value) of the Notes were surrendered for conversion. On June 24, 2014, the Company exercised its right to redeem the remaining $55,412 principal amount of the Notes, effective July 31, 2014. Of the total $55,412 principal amount, $7 of these Notes were redeemed with accrued interest through the redemption date. The remaining $55,405 of these Notes were surrendered for conversion. The Company elected to pay cash to holders of the Notes surrendered for conversion, including the value of any residual shares of common stock that were payable to the holders electing to convert their notes into an equivalent share value, resulting in a total cash payment of $70,497 including a premium on conversion of $14,868 (reducing the equity component by $9,326 , net of tax of $5,542). As a result of this transaction, the Company recaptured $23,565 of previously deducted contingent convertible debt interest which resulted in an $8,784 reduction in short-term deferred tax liabilities and a corresponding increase in current taxes payable included within accrued liabilities. The Company used borrowings under its Amended Credit Facility to finance the conversion of the Notes. The fair value of the Notes was previously determined using quoted market prices that represent Level 2 observable inputs. As of December 31, 2016 and 2015 there were no balances reflected on the balance sheet related to the Company's convertible notes.

The following table sets forth the components of interest expense for the Notes for the year ended December 31, 2014 . The effective interest rate on the liability component of the Notes was 8.00% (life of the Notes).

	2014
Interest expense – 3.375% coupon	$ 1,046
Interest expense – 3.375% debt discount amortization	731
	$ 1,777

8. Business Reorganization

In 2014, the Company authorized the closure of production operations ("Saline operations") at its Associated Spring facility located in Saline, Michigan (the "Closure"). The Saline operations, which included approximately 50 employees, primarily manufactured certain automotive engine valve springs, a highly commoditized product. Based on changing market dynamics and increased customer demands for commodity pricing, several customers advised the Company of their intent to transition these specific springs to other suppliers, which led to the decision of the Closure. The Company recorded restructuring and related costs of $6,020 during 2014. This included $2,182 of employee termination costs, primarily employee severance expense and defined benefit pension and other postretirement plan (the "Plans") costs related to the accelerated recognition of actuarial losses and special termination benefits, and $3,838 of other facility costs, primarily related to asset write-downs and depreciation on assets utilized through the Closure. See Note 11 for costs associated with the Plans that were impacted by the Closure. The Closure was completed as of December 31, 2014. Closure costs were recorded primarily within Cost of Sales in the accompanying Consolidated Statements of Income and are reflected in the results of the Industrial segment.

9. Derivatives

The Company has manufacturing and sales facilities around the world and thus makes investments and conducts business transactions denominated in various currencies. The Company is also exposed to fluctuations in interest rates and commodity price changes. These financial exposures are monitored and managed by the Company as an integral part of its risk management program.

Financial instruments have been used by the Company to hedge its exposures to fluctuations in interest rates. In 2012, the Company entered into five -year interest rate swap agreements transacted with three banks which together convert the interest on the first $100,000 of the Company's one-month LIBOR -based borrowings from a variable rate plus the borrowing spread to a fixed rate of 1.03% plus the borrowing spread. These interest rate swap agreements were accounted for as cash flow hedges and remained in place at December 31, 2016.

The Company uses financial instruments to hedge its exposures to fluctuations in foreign currency exchange rates. The Company has various contracts outstanding which primarily hedge recognized assets or liabilities and anticipated transactions in various currencies including the Euro, British pound sterling, U.S. dollar, Canadian dollar, Japanese yen, Chinese renminbi, Singapore dollar, Korean won, Swedish kroner, Mexican peso and Swiss franc. Certain foreign currency derivative instruments are treated as cash flow hedges of forecasted transactions. All foreign exchange contracts are due within two years .

The Company does not use derivatives for speculative or trading purposes or to manage commodity exposures. Changes in the fair market value of derivatives that qualify as fair value hedges or cash flow hedges are recorded directly to earnings or accumulated other non-owner changes to equity, depending on the designation. Amounts recorded to accumulated other non-owner changes to equity are reclassified to earnings in a manner that matches the earnings impact of the hedged transaction. Any ineffective portion, or amounts related to contracts that are not designated as hedges, are recorded directly to earnings.

The Company's policy for classifying cash flows from derivatives is to report the cash flows consistent with the underlying hedged item. Other financing cash flows during the years ended December 31, 2016 and 2015, as presented on the consolidated statements of cash flows, include $5,221 and $10,309 , respectively, of net cash proceeds from the settlement of foreign currency hedges related to intercompany financing.

The following table sets forth the fair value amounts of derivative instruments held by the Company as of December 31.

	2016		2015	
	Asset Derivatives	Liability Derivatives	Asset Derivatives	Liability Derivatives
Derivatives designated as hedging instruments:				
Interest rate contracts	**$ —**	**$ (78)**	$ —	$ (357)
Foreign exchange contracts	**—**	**(177)**	484	—
	—	**(255)**	484	(357)
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	**397**	**(1,499)**	215	(101)
Total derivatives	**$ 397**	**$ (1,754)**	$ 699	$ (458)

Asset derivatives are recorded in prepaid expenses and other current assets in the accompanying consolidated balance sheets. Liability derivatives related to interest rate contracts and foreign exchange contracts are recorded in other liabilities and accrued liabilities, respectively, in the accompanying consolidated balance sheets.

The following table sets forth the (loss) gain recorded in accumulated other comprehensive income (loss), net of tax, for the years ended December 31, 2016 and 2015 for derivatives held by the Company and designated as hedging instruments.

	2016	2015
Cash flow hedges:		
Interest rate contracts	**$ 174**	$ (39)
Foreign exchange contracts	**(516)**	886
	$ (342)	$ 847

Amounts included within accumulated other comprehensive income (loss) that were reclassified to expense during the year ended December 31, 2016 and 2015 related to the interest rate swaps resulted in a fixed rate of interest of 1.03% plus the borrowing spread for the first $100,000 of one-month LIBOR borrowings. Additionally, there were no amounts recognized in income for hedge ineffectiveness during the years ended December 31, 2016 and 2015 .

The following table sets forth the net gains recorded in other expense (income), net in the consolidated statements of income for the years ended December 31, 2016 and 2015 for non-designated derivatives held by the Company. Such gains were substantially offset by losses recorded on the underlying hedged asset or liability.

	2016	2015
Foreign exchange contracts	**$ 2,297**	$ 8,215

10. Fair Value Measurements

The provisions of the accounting standard for fair value define fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. This standard classifies the inputs used to measure fair value into the following hierarchy:

Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 Unadjusted quoted prices in active markets for similar assets or liabilities, or unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs other than quoted prices that are observable for the asset or liability.

Level 3 Unobservable inputs for the asset or liability.

The following table provides the assets and liabilities reported at fair value and measured on a recurring basis as of December 31, 2016 and 2015 :

		Fair Value Measurements Using		
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2016				
Asset derivatives	**$ 397**	**$ —**	**$ 397**	**$ —**
Liability derivatives	**(1,754)**	**—**	**(1,754)**	**—**
Bank acceptances	**9,690**	**—**	**9,690**	**—**
Rabbi trust assets	**2,216**	**2,216**	**—**	**—**
	$ 10,549	**$ 2,216**	**$ 8,333**	**$ —**
December 31, 2015				
Asset derivatives	$ 699	$ —	$ 699	$ —
Liability derivatives	(458)	—	(458)	—
Bank acceptances	10,823	—	10,823	—
Rabbi trust assets	2,159	2,159	—	—
	$ 13,223	$ 2,159	$ 11,064	$ —

The derivative contracts are valued using observable current market information as of the reporting date such as the prevailing LIBOR-based interest rates and foreign currency spot and forward rates. Bank acceptances represent financial instruments accepted from certain Chinese customers in lieu of cash paid on receivables, generally range from 3 to 6 months in maturity and are guaranteed by banks. The carrying amounts of the bank acceptances, which are included within other current assets, approximate fair value due to their short maturities. The fair values of rabbi trust assets are based on quoted market prices from various financial exchanges. For disclosures of the fair values of the Company's pension plan assets, see Note 11 of the Consolidated Financial Statements.

11. Pension and Other Postretirement Benefits

The accounting standards related to employers' accounting for defined benefit pension and other postretirement plans requires the Company to recognize the funded status of its defined benefit postretirement plans as assets or liabilities in the accompanying consolidated balance sheets and to recognize changes in the funded status of the plans in comprehensive income.

The Company has various defined contribution plans, the largest of which is its Retirement Savings Plan. Most U.S. salaried and non-union hourly employees are eligible to participate in this plan. See Note 16 for further discussion of the Retirement Savings Plan. The Company also maintains various other defined contribution plans which cover certain other employees. Company contributions under these plans are based primarily on the performance of the business units and employee compensation. Contribution expense under these other defined contribution plans was $5,907 , $5,347 and $5,213 in 2016 , 2015 and 2014 , respectively.

Defined benefit pension plans in the U.S. cover a majority of the Company's U.S. employees at the Associated Spring and Nitrogen Gas Products businesses of Industrial, the Company's Corporate Office and certain former U.S. employees, including retirees. Plan benefits for salaried and non-union hourly employees are based on years of service and average salary. Plans covering union hourly employees provide benefits based on years of service. In 2012, the Company closed the U.S. salaried defined benefit pension plan (the "U.S. Salaried Plan") to employees hired on or after January 1, 2013, with no impact to the benefits of existing participants. Effective January 1, 2013, the Retirement Savings Plan was amended to provide certain salaried employees hired on or after January 1, 2013 with an additional annual retirement contribution of 4% of eligible earnings, in place of pensionable benefits under the closed U.S. Salaried Plan. The Company funds U.S. pension costs in accordance with the Employee Retirement Income Security Act of 1974, as amended ("ERISA"). Non-U.S. defined benefit pension plans cover certain employees of certain international locations in Europe and Canada.

The Company provides other medical, dental and life insurance postretirement benefits for certain of its retired employees in the U.S. and Canada. It is the Company's practice to fund these benefits as incurred.

The accompanying balance sheets reflect the funded status of the Company's defined benefit pension plans at December 31, 2016 and 2015 , respectively. Reconciliations of the obligations and funded status of the plans follow:

	2016			2015		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Benefit obligation, January 1	$ 385,629	$ 75,406	$ 461,035	$ 433,079	$ 80,305	$ 513,384
Service cost	3,892	1,503	5,395	4,160	1,348	5,508
Interest cost	17,523	1,971	19,494	17,967	2,052	20,019
Amendments	2,405	(174)	2,231	—	(463)	(463)
Actuarial loss (gain)	6,661	10,814	17,475	(16,622)	(2,288)	(18,910)
Benefits paid	(26,497)	(4,691)	(31,188)	(52,490)	(4,244)	(56,734)
Transfers in	—	25,968	25,968	—	3,951	3,951
Plan curtailments	—	—	—	(465)	—	(465)
Plan settlements	—	—	—	—	(375)	(375)
Participant contributions	—	1,444	1,444	—	368	368
Foreign exchange rate changes	—	(7,902)	(7,902)	—	(5,248)	(5,248)
Benefit obligation, December 31	389,613	104,339	493,952	385,629	75,406	461,035
Fair value of plan assets, January 1	326,829	68,553	395,382	380,937	71,750	452,687
Actual return on plan assets	13,051	7,276	20,327	(5,045)	1,264	(3,781)
Company contributions	17,877	2,224	20,101	3,427	1,100	4,527
Participant contributions	—	1,444	1,444	—	368	368
Benefits paid	(26,497)	(4,691)	(31,188)	(52,490)	(4,244)	(56,734)
Plan settlements	—	—	—	—	(376)	(376)
Transfers in	—	18,320	18,320	—	3,434	3,434
Foreign exchange rate changes	—	(7,474)	(7,474)	—	(4,743)	(4,743)
Fair value of plan assets, December 31	331,260	85,652	416,912	326,829	68,553	395,382
Underfunded status, December 31	$ (58,353)	$ (18,687)	$ (77,040)	$ (58,800)	$ (6,853)	$ (65,653)

In September 2015, the Company announced a limited-time program offering (the "Program") to certain eligible, vested, terminated participants ("eligible participants") for a voluntary lump-sum pension payout or reduced annuity option (the "payout") that, if accepted, would settle the Company's pension obligation to them. The Program provided the eligible participants with a limited time opportunity of electing to receive a lump-sum settlement of their remaining pension benefit, or reduced annuity. The scheduled payments of $27,986 were made in December 2015, and are included within the "Benefits Paid" of $52,490 above. The payouts were funded by the assets of the Company's pension plan and therefore the Program did not require significant cash outflows by the Company. The resultant pre-tax settlement charge of $9,856 represents accelerated

amortization of actuarial losses and was reflected within costs of sales and selling and administrative expenses within the Consolidated Statements of Income.

Projected benefit obligations related to pension plans with benefit obligations in excess of plan assets follow:

	2016			2015		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Projected benefit obligation	**$ 389,613**	**$ 61,060**	**$ 450,673**	$ 271,459	$ 31,613	$ 303,072
Fair value of plan assets	**331,260**	**39,356**	**370,616**	204,270	20,199	224,469

Information related to pension plans with accumulated benefit obligations in excess of plan assets follows:

	2016			2015		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Projected benefit obligation	**$ 389,613**	**$ 61,014**	**$ 450,627**	$ 271,459	$ 30,560	$ 302,019
Accumulated benefit obligation	**378,431**	**59,568**	**437,999**	262,172	26,998	289,170
Fair value of plan assets	**331,260**	**39,356**	**370,616**	204,270	19,256	223,526

The accumulated benefit obligation for all defined benefit pension plans was $481,241 and $447,591 at December 31, 2016 and 2015 , respectively.

Amounts related to pensions recognized in the accompanying balance sheets consist of:

	2016			2015		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Other assets	**$ —**	**$ 3,017**	**$ 3,017**	$ 8,389	$ 4,561	$ 12,950
Accrued liabilities	**2,813**	**367**	**3,180**	2,806	379	3,185
Accrued retirement benefits	**55,540**	**21,337**	**76,877**	64,383	11,035	75,418
Accumulated other non-owner changes to equity, net	**(91,530)**	**(19,458)**	**(110,988)**	(83,014)	(16,812)	(99,826)

Amounts related to pensions recognized in accumulated other non-owner changes to equity, net of tax, at December 31, 2016 and 2015 , respectively, consist of:

	2016			2015		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Net actuarial loss	**$ (89,772)**	**$ (19,822)**	**$ (109,594)**	$ (82,643)	$ (16,999)	$ (99,642)
Prior service costs	**(1,758)**	**364**	**(1,394)**	(371)	187	(184)
	$ (91,530)	**$ (19,458)**	**$ (110,988)**	$ (83,014)	$ (16,812)	$ (99,826)

The accompanying balance sheets reflect the underfunded status of the Company’s other postretirement benefit plans at December 31, 2016 and 2015 . Reconciliations of the obligations and underfunded status of the plans follow:

	2016	2015
Benefit obligation, January 1	**$ 41,706**	$ 46,814
Service cost	**122**	145
Interest cost	**1,766**	1,836
Actuarial gain	**(3,495)**	(2,521)
Benefits paid	**(5,621)**	(6,970)
Participant contributions	**2,281**	2,486
Foreign exchange rate changes	**94**	(84)
Benefit obligation, December 31	**36,853**	41,706
Fair value of plan assets, January 1	**—**	—
Company contributions	**3,340**	4,484
Participant contributions	**2,281**	2,486
Benefits paid	**(5,621)**	(6,970)
Fair value of plan assets, December 31	**—**	—
Underfunded status, December 31	**$ 36,853**	$ 41,706

Amounts related to other postretirement benefits recognized in the accompanying balance sheets consist of:

	2016	2015
Accrued liabilities	**$ 5,081**	$ 5,259
Accrued retirement benefits	**31,772**	36,447
Accumulated other non-owner changes to equity, net	**(3,582)**	(5,877)

Amounts related to other postretirement benefits recognized in accumulated other non-owner changes to equity, net of tax, at December 31, 2016 and 2015 consist of:

	2016	2015
Net actuarial loss	**$ (3,532)**	$ (6,061)
Prior service credits	**(50)**	184
	$ (3,582)	$ (5,877)

The sources of changes in accumulated other non-owner changes to equity, net, during 2016 were:

	Pension	Other Postretirement Benefits
Prior service cost	**$ (1,334)**	**$ —**
Net (loss) gain	**(18,378)**	**2,194**
Amortization of prior service costs (credits)	**142**	**(234)**
Amortization of actuarial loss	**7,030**	**332**
Foreign exchange rate changes	**1,378**	**3**
	$ (11,162)	**$ 2,295**

Weighted-average assumptions used to determine benefit obligations at December 31, are:

	2016	2015
U.S. plans:		
Discount rate	**4.50%**	4.65%
Increase in compensation	**2.56%**	3.71%
Non-U.S. plans:		
Discount rate	**1.60%**	2.80%
Increase in compensation	**2.29%**	2.71%

The investment strategy of the plans is to generate a consistent total investment return sufficient to pay present and future plan benefits to retirees, while minimizing the long-term cost to the Company. Target allocations for asset categories are used to earn a reasonable rate of return, provide required liquidity and minimize the risk of large losses. Targets may be adjusted, as necessary, to reflect trends and developments within the overall investment environment. The weighted-average target investment allocations by asset category were as follows during 2016: 65% in equity securities, 30% in fixed income securities and 5% in other investments, including cash.

The fair values of the Company's pension plan assets at December 31, 2016 and 2015 , by asset category are as follows:

		Fair Value Measurements Using		
Asset Category	**Total**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
December 31, 2016				
Cash and short-term investments	**$ 3,207**	**$ 3,207**	**$ —**	$ —
Equity securities:				
U.S. large-cap	**39,162**	**—**	**39,162**	—
U.S. mid-cap	**12,724**	**12,724**	**—**	—
U.S. small-cap	**19,551**	**19,551**	**—**	—
International equities	**135,514**	**—**	**135,514**	—
Global equity	**47,445**	**47,445**	**—**	—
Fixed income securities:				
U.S. bond funds	**103,399**	**—**	**103,399**	—
International bonds	**53,783**	**—**	**53,783**	—
Other	**2,127**	**—**	**—**	**2,127**
	$ 416,912	**$ 82,927**	**$ 331,858**	**$ 2,127**
December 31, 2015				
Cash and short-term investments	18,795	18,795	—	—
Equity securities:				
U.S. large-cap	67,274	28,190	39,084	—
U.S. mid-cap	38,790	38,790	—	—
U.S. small-cap	38,248	38,248	—	—
International equities	91,563	—	91,563	—
Global equity	17,928	17,928		
Fixed income securities:				
U.S. bond funds	84,645	—	84,645	—
International bonds	36,282	—	36,282	—
Other	1,857	—	—	1,857
	$ 395,382	$ 141,951	$ 251,574	$ 1,857

The fair values of the Level 1 assets are based on quoted market prices from various financial exchanges. The fair values of the Level 2 assets are based primarily on quoted prices in active markets for similar assets or liabilities. The Level 2 assets are comprised primarily of commingled funds and fixed income securities. Commingled equity funds are valued at their net

asset values based on quoted market prices of the underlying assets. Fixed income securities are valued using a market approach which considers observable market data for the underlying asset or securities. The Level 3 assets relate to the defined benefit pension plan at the Synventive business. These pension assets are fully insured and have been estimated based on accrued pension rights and actuarial rates. These pension assets are limited to fulfilling the Company's pension obligations.

The Company expects to contribute approximately $4,935 to the pension plans in 2017 .

The following are the estimated future net benefit payments, which include future service, over the next 10 years:

	Pensions	Other Postretirement Benefits
2017	**$ 28,703**	**$ 3,983**
2018	**28,577**	**3,352**
2019	**28,878**	**3,176**
2020	**28,810**	**3,294**
2021	**28,994**	**3,095**
Years 2022-2026	**144,566**	**12,906**
Total	**$ 288,528**	**$ 29,806**

Pension and other postretirement benefit expenses consist of the following:

	Pensions			Other Postretirement Benefits		
	2016	2015	2014	2016	2015	2014
Service cost	**$ 5,395**	$ 5,508	$ 4,546	**$ 122**	$ 145	$ 139
Interest cost	**19,494**	20,019	22,026	**1,766**	1,836	2,179
Expected return on plan assets	**(30,302)**	(32,404)	(34,232)	**—**	—	—
Amortization of prior service cost (credit)	**210**	305	648	**(373)**	(564)	(871)
Recognized losses	**10,791**	15,004	8,617	**535**	1,011	1,017
Curtailment loss (gain)	**—**	—	219	**—**	—	4
Settlement loss	**—**	9,939	871	**—**	—	—
Special termination benefits	**—**	—	715	**—**	—	—
Net periodic benefit cost	**$ 5,588**	$ 18,371	$ 3,410	**$ 2,050**	$ 2,428	$ 2,468

The estimated net actuarial loss and prior service cost for the defined benefit pension plans that will be amortized from accumulated other non-owner changes to equity into net periodic benefit cost in 2017 are $9,997 and $441 , respectively. The estimated net actuarial loss and prior service credit for other defined benefit postretirement plans that will be amortized from accumulated other non-owner changes to equity into net periodic benefit cost in 2017 are $276 and $(68) , respectively.

Weighted-average assumptions used to determine net benefit expense for years ended December 31, are:

	2016	2015	2014
U.S. plans:			
Discount rate	**4.65%**	4.25%	5.20%
Long-term rate of return	**8.25%**	8.25%	9.00%
Increase in compensation	**3.71%**	3.71%	3.72%
Non-U.S. plans:			
Discount rate	**2.80%**	2.74%	3.93%
Long-term rate of return	**4.73%**	5.00%	5.07%
Increase in compensation	**2.71%**	2.72%	2.76%

The expected long-term rate of return is based on projected rates of return and the historical rates of return of published indices that are used to measure the plans' target asset allocation. The historical rates are then discounted to consider fluctuations in the historical rates as well as potential changes in the investment environment.

The Company's accumulated postretirement benefit obligations, exclusive of pensions, take into account certain cost-sharing provisions. The annual rate of increase in the cost of covered benefits (i.e., health care cost trend rate) is assumed to be 6.44% and 6.65% at December 31, 2016 and 2015 , respectively, decreasing gradually to a rate of 4.50% by December 31, 2029 . A one percentage point change in the assumed health care cost trend rate would have the following effects:

	One Percentage Point Increase	One Percentage Point Decrease
Effect on postretirement benefit obligation	$ 319	$ (295)
Effect on postretirement benefit cost	14	(13)

The Company actively contributes to a Swedish pension plan that supplements the Swedish social insurance system. The pension plan guarantees employees a pension based on a percentage of their salary and represents a multi-employer pension plan, however the pension plan was not significant in any year presented. This pension plan is not underfunded.

Contributions related to the individually insignificant multi-employer plans, as disclosure is required pursuant to the applicable accounting standards, are as follows:

	Contributions by the Company		
Pension Fund:	2016	2015	2014
Swedish Pension Plan (ITP2)	673	$ 343	$ 379
Total Contributions	$ 673	$ 343	$ 379

12. Stock-Based Compensation

The Company accounts for the cost of all share-based payments, including stock options, by measuring the payments at fair value on the grant date and recognizing the cost in the results of operations. The fair values of stock options are estimated using the Black-Scholes option-pricing model based on certain assumptions. The fair values of service and performance based stock awards are estimated based on the fair market value of the Company's stock price on the grant date. The fair value of market based performance share awards are estimated using the Monte Carlo valuation method. Estimated forfeiture rates are applied to outstanding awards.

Refer to Note 16 for a description of the Company's stock-based compensation plans and their general terms. As of December 31, 2016 , incentives have been awarded in the form of performance share awards and restricted stock unit awards (collectively, "Rights") and stock options. The Company has elected to use the straight-line method to recognize compensation costs. Stock options and awards typically vest over a period ranging from six months to five years . The maximum term of stock option awards is 10 years. Upon exercise of a stock option or upon vesting of Rights, shares may be issued from treasury shares held by the Company or from authorized shares.

In March 2016, the FASB amended its guidance related to the accounting for certain aspects of share-based payments to employees. The amended guidance requires that all tax effects related to share-based payments are recorded at settlement (or expiration) through the income statement, rather than through equity. Cash flows related to excess tax benefits will no longer be separately classified as a financing activity apart from other income tax cash flows. The amended guidance also allows for an employer to repurchase additional employee shares for tax withholding purposes without requiring liability accounting and clarifies that all cash payments made to tax authorities on an employee's behalf for withheld shares should be presented as a financing activity on the Consolidated Statements of Cash Flows. The guidance also allows for a policy election to account for forfeitures as they occur, rather than accounting for them on an estimated basis. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted.

The Company elected to early adopt this guidance in the third quarter of 2016. This adoption requires the Company to reflect any adjustments as of January 1, 2016, the beginning of the annual period that includes the interim period of adoption. The most significant impact of adoption was the recognition of excess tax benefits in the provision for income taxes rather than through equity for all periods in fiscal year 2016. This resulted in the recognition of excess tax benefits in the provision for income taxes of $2,229 for the year ended December 31, 2016. In 2015 and 2014, the Company recorded $2,667 and $4,888 ,

respectively, of excess tax benefits for current year tax deductions in additional paid-in capital, as was required pursuant to the earlier accounting guidance. In connection with the additional amendments within the amended guidance, the Company recognized state tax loss carryforwards in the amount of $198 , which impacted retained earnings as of January 1, 2016. The cumulative effect of this change is required to be recorded in retained earnings. The Company elected to continue to estimate forfeitures expected to occur to determine the amount of compensation cost to be recognized in each period.

The presentation requirements for cash flows related to excess tax benefits and employee taxes paid for withheld shares were applied retrospectively to all periods presented. This resulted in an increase in both net cash provided by operating activities and net cash used by financing activities of $1,402 , $2,320 , $7,519 and $7,580 for the three, six, nine and twelve month periods ended March 31, June 30, September 30 and December 31, 2015, respectively, and $413 and $524 for the three and six month periods ended March 31 and June 30, 2016, respectively.

During 2016 , 2015 and 2014 , the Company recognized $11,493 , $9,258 , and $7,603 respectively, of stock-based compensation cost and $4,284 , $3,451 , and $2,834 respectively, of related tax benefits in the accompanying consolidated statements of income. The Company has realized all available tax benefits related to deductions from excess stock awards exercised or issued in earlier periods. At December 31, 2016 , the Company had $12,519 of unrecognized compensation costs related to unvested awards which are expected to be recognized over a weighted average period of 2.01 years.

The following table summarizes information about the Company's stock option awards during 2016 :

	Number of Shares	Weighted-Average Exercise Price
Outstanding, January 1, 2016	**644,072**	**$ 25.63**
Granted	**167,105**	**31.34**
Exercised	**(203,517)**	**20.56**
Forfeited	**(18,500)**	**36.22**
Outstanding, December 31, 2016	**589,160**	**28.67**

The following table summarizes information about stock options outstanding at December 31, 2016 :

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number of Shares	Average Remaining Life (Years)	Average Exercise Price	Number of Shares	Average Exercise Price
$11.45 to $15.83	**87,690**	**2.58**	**$ 13.48**	**87,690**	**$ 13.48**
$20.69 to $24.24	**76,584**	**5.10**	**22.65**	**76,584**	**22.65**
$26.32 to $30.71	**214,312**	**7.49**	**29.27**	**72,312**	**26.43**
$33.45 to $38.96	**210,574**	**7.91**	**36.57**	**82,350**	**36.83**

The Company received cash proceeds from the exercise of stock options of $4,184 , $11,022 and $11,024 in 2016 , 2015 and 2014 , respectively. The total intrinsic value (the amount by which the stock price exceeds the exercise price of the option on the date of exercise) of the stock options exercised during 2016 , 2015 and 2014 was $4,464 , $8,331 and $11,178 , respectively.

The weighted-average grant date fair value of stock options granted in 2016 , 2015 and 2014 was $7.01 , $8.86 and $12.14 , respectively. The fair value of each stock option grant on the date of grant was estimated using the Black-Scholes option-pricing model based on the following weighted average assumptions:

	2016	2015	2014
Risk-free interest rate	**1.20%**	1.58%	1.68%
Expected life (years)	**5.3**	5.3	5.3
Expected volatility	**29.1%**	31.1%	42.6%
Expected dividend yield	**1.94%**	2.06%	2.24%

The risk-free interest rate is based on the term structure of interest rates at the time of the option grant. The expected life represents an estimate of the period of time that options are expected to remain outstanding. Assumptions of expected volatility

of the Company's common stock and expected dividend yield are estimates of future volatility and dividend yields based on historical trends.

The following table summarizes information about stock options outstanding that are expected to vest and stock options outstanding that are exercisable at December 31, 2016 :

Options Outstanding, Expected to Vest				Options Outstanding, Exercisable			
Shares	Weighted-Average Exercise Price	Aggregate Intrinsic Value	Weighted-Average Remaining Term (Years)	Shares	Weighted-Average Exercise Price	Aggregate Intrinsic Value	Weighted-Average Remaining Term (Years)
568,820	$ 28.67	$ 10,667	6.60	318,936	$ 24.65	$ 7,263	4.85

The following table summarizes information about the Company's Rights during 2016 :

	Service Based Rights		Service and Performance Based Rights		Service and Market Based Rights	
	Number of Units	Weighted-Average Grant Date Fair Value	Number of Units	Weighted-Average Grant Date Fair Value	Number of Units	Weighted-Average Grant Date Fair Value
Outstanding, January 1, 2016	**401,706**	**$ 30.51**	**214,426**	**$ 31.29**	**107,213**	**$ 48.37**
Granted	**154,903**	**32.22**	**62,070**	**31.32**	**62,069**	**48.84**
Forfeited	**(16,138)**	**34.23**	**(6,333)**	**37.61**	**(3,476)**	**31.46**
Additional Earned	—	—	**35,653**	**24.55**	**29,937**	**24.18**
Issued	**(193,167)**	**34.53**	**(133,774)**	**24.55**	**(78,997)**	**24.18**
Outstanding, December 31, 2016	**347,304**		**172,042**		**116,746**	

The Company granted 154,903 restricted stock unit awards and 124,139 performance share awards in 2016 . All of the restricted stock unit awards vest upon meeting certain service conditions. "Additional Earned" reflects performance share awards earned above target that have been issued. The performance share awards are part of the long-term Performance Share Award Program (the "Awards Program"), which is designed to assess the long-term Company performance relative to the performance of companies included in the Russell 2000 Index or to pre-established goals. The performance goals are independent of each other and based on three equally weighted metrics through 2015 and two equally weighted metrics in 2016. Prior to 2015, the metrics included the Company's total shareholder return ("TSR"), basic or diluted earnings per share growth ("EPS Growth") and operating income before depreciation and amortization growth. For awards granted in 2015, the metrics included TSR, operating income before depreciation and amortization growth and return on invested capital ("ROIC"). For awards granted in 2016, the metrics included only TSR and ROIC. The TSR, operating income before depreciation and amortization growth, and EPS Growth metrics are designed to assess the long-term Company performance relative to the performance of companies included in the Russell 2000 Index over a three year period. ROIC is designed to assess the Company's performance compared to pre-established goals over a three year performance period. The participants can earn from zero to 250% of the target award and the award includes a forfeitable right to dividend equivalents, which are not included in the aggregate target award numbers. Compensation expense for the awards is recognized over the three year service period based upon the value determined under the intrinsic value method for the basic or diluted earnings per share growth, operating income before depreciation and amortization growth and ROIC portions of the award and the Monte Carlo simulation valuation model for the TSR portion of the award since it contains a market condition. The weighted-average assumptions used to determine the weighted-average fair values of the market based portion of the 2016 awards include a 0.83% risk-free interest rate and a 22.9% expected volatility rate.

Compensation expense for the TSR portion of the awards is fixed at the date of grant and will not be adjusted in future periods based upon the achievement of the TSR performance goal. Compensation expense for the basic or diluted earnings per share growth or the return on invested capital, and the operating income before depreciation and amortization growth portions of the awards is recorded each period based upon a probability assessment of achieving the goals with a final adjustment at the end of the service period based upon the actual achievement of those performance goals.

13. Income Taxes

The components of Income from continuing operations before income taxes and Income taxes follow:

	2016	2015	2014
Income from continuing operations before income taxes:			
U.S.	**$ 34,129**	$ 11,525	$ 33,070
International	**148,492**	146,421	133,430
Income from continuing operations before income taxes	**$ 182,621**	$ 157,946	$ 166,500
Income tax provision:			
Current:			
U.S. – federal	**$ 7,215**	$ (210)	$ 22,673
U.S. – state	**755**	2,019	1,236
International	**41,516**	32,217	35,954
	49,486	34,026	59,863
Deferred:			
U.S. – federal	**$ 6,091**	$ 7,670	$ (6,737)
U.S. – state	**1,060**	(1,137)	1,279
International	**(9,617)**	(3,993)	(8,446)
	(2,466)	2,540	(13,904)
Income taxes	**$ 47,020**	$ 36,566	$ 45,959

Deferred income tax assets and liabilities at December 31 consist of the tax effects of temporary differences related to the following:

	2016	2015
Deferred tax assets:		
Pension	**$ 27,410**	$ 25,331
Tax loss carryforwards	**16,686**	15,330
Inventory valuation	**15,518**	15,938
Other postretirement/postemployment costs	**14,071**	15,753
Accrued Compensation	**10,121**	10,242
Other	**6,489**	5,880
Valuation allowance	**(14,957)**	(14,401)
Total deferred tax assets	**75,338**	74,073
Deferred tax liabilities:		
Depreciation and amortization	**(89,198)**	(81,158)
Goodwill	**(14,871)**	(14,545)
Other	**(12,282)**	(16,313)
Total deferred tax liabilities	**(116,351)**	(112,016)
Net deferred tax liabilities	**$ (41,013)**	$ (37,943)

In the first quarter of 2016, the Company prospectively adopted the amended guidance related to the balance sheet classification of deferred income taxes. The amended guidance removed the requirement to separate and classify deferred income tax liabilities and assets into current and non-current amounts and required an entity to now classify all deferred tax liabilities and assets as non-current. The provisions of the amended guidance were adopted on a prospective basis during the first quarter of 2016. Amounts related to deferred taxes in the balance sheets as of December 31, 2016 and 2015 are presented as follows:

	2016	2015
Current deferred tax assets	$ —	$ 24,825
Non-current deferred tax assets	**25,433**	1,139
Current deferred tax liabilities (included in accrued liabilities)	**—**	(1,543)
Non-current deferred tax liabilities	**(66,446)**	(62,364)
Net deferred tax liabilities	**$ (41,013)**	$ (37,943)

The standards related to accounting for income taxes require that deferred tax assets be reduced by a valuation allowance if, based on all available evidence, it is more likely than not that the deferred tax asset will not be realized. Available evidence includes the reversal of existing taxable temporary differences, future taxable income exclusive of temporary differences, taxable income in carryback years and tax planning strategies.

Management believes that sufficient taxable income should be earned in the future to realize the net deferred tax assets principally in the United States. The realization of these assets is dependent in part on the amount and timing of future taxable income in the jurisdictions where deferred tax assets reside. The Company has tax loss carryforwards of $68,752 ; $2,757 which relates to U.S tax loss carryforwards which have carryforward periods up to 18 years for federal purposes and ranging from one to 20 years for state purposes; $55,882 of which relates to international tax loss carryforwards with carryforward periods ranging from one to 20 years; and $10,113 of which relates to international tax loss carryforwards with unlimited carryforward periods. In addition, the Company has tax credit carryforwards of $154 with remaining carryforward periods ranging from one year to 5 years. As the ultimate realization of the remaining net deferred tax assets is dependent upon future taxable income, if such future taxable income is not earned and it becomes necessary to recognize a valuation allowance, it could result in a material increase in the Company's tax expense which could have a material adverse effect on the Company's financial condition and results of operations.

The Company has not recognized a deferred income liability for U.S. taxes on $1,081,352 of undistributed earnings of its international subsidiaries, since such earnings are considered to be reinvested indefinitely as defined per the indefinite reversal criterion within the accounting guidance for income taxes. If the earnings were distributed in the form of dividends, the Company would be subject, in certain cases, to both U.S. income taxes and foreign income and withholding taxes. Determination of the amount of this unrecognized deferred income tax liability is not practicable. During 2016, the Company repatriated a dividend from a portion of current year foreign earnings to the U.S. in the amount of $8,328 . As a result of the dividend, tax expense increased by $2,890 and the 2016 annual consolidated effective income tax rate increased by 1.6 percentage points.

A reconciliation of the U.S. federal statutory income tax rate to the consolidated effective income tax rate from continuing operations follows:

	2016	2015	2014
U.S. federal statutory income tax rate	**35.0 %**	35.0 %	35.0 %
State taxes (net of federal benefit)	**0.4**	0.2	0.5
Foreign losses without tax benefit	**0.7**	1.1	1.1
Foreign operations taxed at lower rates	**(10.9)**	(12.9)	(9.9)
Repatriation from current year foreign earnings	**1.6**	4.3	2.6
Tax withholding refund	**—**	(1.9)	—
Tax Holidays	**(1.2)**	(3.2)	(2.7)
Stock awards excess tax benefit	**(1.2)**	—	—
Other	**1.3**	0.6	1.0
Consolidated effective income tax rate	**25.7 %**	23.2 %	27.6 %

The Aerospace and Industrial Segments were previously awarded a number of multi-year tax holidays in both Singapore and China. Tax benefits of $2,245 ($0.04 per diluted share), $5,000 ($0.09 per diluted share) and $4,513 ($0.08 per diluted share) were realized in 2016 , 2015 and 2014 , respectively. These holidays are subject to the Company meeting certain commitments in the respective jurisdictions. The significant tax holidays are due to expire in 2017.

Income taxes paid globally, net of refunds, were $40,842 , $31,895 and $33,146 in 2016 , 2015 and 2014 , respectively.

As of December 31, 2016 , 2015 and 2014 , the total amount of unrecognized tax benefits recorded in the consolidated balance sheet was $13,320 , $10,634 and $8,560 , respectively, which, if recognized, would have reduced the effective tax rate in prior years, with the exception of amounts related to acquisitions. A reconciliation of the unrecognized tax benefits for 2016 , 2015 and 2014 follows:

	2016	2015	2014
Balance at January 1	**$ 10,634**	$ 8,560	$ 8,027
Increase (decrease) in unrecognized tax benefits due to:			
Tax positions taken during prior periods	**—**	1,691	533
Tax positions taken during the current period	**117**	—	—
Acquisition	**2,569**	598	—
Lapse of the applicable statute of limitations	**—**	(215)	—
Balance at December 31	**$ 13,320**	$ 10,634	$ 8,560

The Company recognizes interest and penalties, if any, related to unrecognized tax benefits in income tax expense. The Company recognized interest and penalties as a component of income taxes of $(337) , $616 , and $0 in the years 2016, 2015, and 2014 respectively. The liability for unrecognized tax benefits include gross accrued interest and penalties of $1,838 , $1,923 and $1,031 at December 31, 2016 , 2015 and 2014 , respectively.

The Company or its subsidiaries file income tax returns in the U.S. federal jurisdiction, and various state and foreign jurisdictions. In the normal course of business, the Company is subject to examination by various taxing authorities, including the IRS in the U.S. and the taxing authorities in other major jurisdictions including China, Germany, Singapore, Sweden and Switzerland. With a few exceptions, tax years remaining open to examination in significant foreign jurisdictions include tax years 2010 and forward and for the U.S. include tax years 2014 and forward. The Company is under audit in Germany for tax years 2010 to 2014 and is also under audit in several U.S. states for the period 2011 through 2013.

14. Common Stock

There were no shares of common stock issued from treasury in 2016, 2015 or 2014.

In 2016 , 2015 and 2014 , the Company acquired 550,994 shares, 1,352,596 shares and 220,794 shares, respectively, of the Company’s common stock at a cost of $20,520 , $52,103 and $8,389 , respectively. These amounts exclude shares reacquired to pay for the related income tax upon issuance of shares in accordance with the terms of the Company’s stockholder-approved equity compensation plans and the equity rights granted under those plans ("Reacquired Shares"). These Reacquired Shares were placed in treasury.

In 2016 , 2015 and 2014 , 621,259 shares, 841,164 shares and 923,852 shares of common stock, respectively, were issued from authorized shares for the exercise of stock options, various other incentive awards and purchases by the Company's Employee Stock Purchase Plan.

15. Preferred Stock

At December 31, 2016 and 2015 , the Company had 3,000,000 shares of preferred stock authorized, none of which were outstanding.

16. Stock Plans

Most U.S. salaried and non-union hourly employees are eligible to participate in the Company’s 401(k) plan (the "Retirement Savings Plan"). The Retirement Savings Plan provides for the investment of employer and employee contributions in various investment alternatives including the Company’s common stock, at the employee’s direction. The Company contributes an amount equal to 50% of employee contributions up to 6% of eligible compensation. The Company expenses all contributions made to the Retirement Savings Plan. Effective January 1, 2013, the Retirement Savings Plan was amended to provide certain salaried employees hired on or after January 1, 2013 with an additional annual retirement contribution of 4% of eligible earnings. The Company recognized expense of $3,660 , $3,666 and $3,278 in 2016 , 2015 and 2014 , respectively. As of December 31, 2016 , the Retirement Savings Plan held 1,226,034 shares of the Company’s common stock.

The Company has an Employee Stock Purchase Plan ("ESPP") under which eligible employees may elect to have up to the lesser of $25 or 10% of base compensation deducted from their payroll checks for the purchase of the Company's common stock at 95% of the average market value on the date of purchase. The maximum number of shares which may be purchased under the ESPP is 4,550,000 . The number of shares purchased under the ESPP was 11,804 , 11,246 and 12,770 in 2016 , 2015 and 2014 , respectively. The Company received cash proceeds from the purchase of these shares of $427 , $403 and $436 in 2016 , 2015 and 2014 , respectively. As of December 31, 2016 , 285,399 additional shares may be purchased.

The 1991 Barnes Group Stock Incentive Plan (the "1991 Plan") authorized the granting of incentives to executive officers, directors and key employees in the form of stock options, stock appreciation rights, incentive stock rights and performance unit awards. On May 9, 2014, the 1991 Plan was merged into the 2014 Plan (defined below).

The Barnes Group Inc. Employee Stock and Ownership Program (the "2000 Plan") was approved on April 12, 2000, and subsequently amended on April 10, 2002 by the Company's stockholders. The 2000 Plan permitted the granting of incentive stock options, nonqualified stock options, restricted stock awards, performance share or cash unit awards and stock appreciation rights, or any combination of the foregoing, to eligible employees to purchase up to 6,900,000 shares of the Company's common stock. Such shares were authorized and reserved. On May 9, 2014, the 2000 Plan was merged into the 2014 Plan (defined below).

The Barnes Group Stock and Incentive Award Plan (the "2004 Plan") was approved on April 14, 2004, and subsequently amended on April 20, 2006 and May 7, 2010 by the Company's stockholders. The 2004 Plan permits the issuance of incentive awards, stock option grants and stock appreciation rights to eligible participants to purchase up to 5,700,000 shares of common stock. On May 9, 2014, the 2004 Plan was merged into the 2014 Plan (defined below), and the remaining shares available for future grants under the 2004 Plan, as of the merger date, were made available under the 2014 Plan.

The 2014 Barnes Group Stock and Incentive Award Plan (the "2014 Plan") was approved on May 9, 2014 by the Company's stockholders. The 2014 Plan permits the issuance of incentive awards, stock option grants and stock appreciation rights to eligible participants to purchase up to 6,913,978 shares of common stock. The amount includes shares available for purchase under the 1991, 2000, and 2004 Plans which were merged into the 2014 Plan. The 2014 Plan allows for stock options and stock appreciation rights to be issued at a ratio of 1 :1 and other types of incentive awards at a ratio of 2.84 :1 from the shares available for future grants. As of December 31, 2016 , there were 6,108,925 shares available for future grants under the 2014 Plan, inclusive of Shares Reacquired and shares made available through 2016 forfeitures. As of December 31, 2016 , there were 1,256,599 shares of common stock outstanding to be issued upon the exercise of stock options and the vesting of Rights.

Rights under the 2014 Plan entitle the holder to receive, without payment, one share of the Company's common stock after the expiration of the vesting period. Certain of these Rights are also subject to the satisfaction of established performance goals. Additionally, holders of certain Rights are credited with dividend equivalents, which are converted into additional Rights, and holders of certain restricted stock units are paid dividend equivalents in cash when dividends are paid to other stockholders. All Rights have a vesting period of up to five years .

Under the Non-Employee Director Deferred Stock Plan, as amended, each non-employee director who joined the Board of Directors prior to December 15, 2005 was granted the right to receive 12,000 shares of the Company's common stock upon retirement. In 2016 , 2015 and 2014, $21 , $26 and $28 , respectively, of dividend equivalents were paid in cash related to these shares. Compensation cost related to this plan was $28 , $16 and $16 in 2016 , 2015 and 2014 , respectively. There are 38,400 shares reserved for issuance under this plan. Each non-employee director who joined the Board of Directors subsequent to December 15, 2005 received restricted stock units under the respective 2004 or 2014 Plans that have a value of $50 that vest three years after the date of grant.

Total maximum shares reserved for issuance under all stock plans aggregated 7,689,323 at December 31, 2016 .

17. Weighted Average Shares Outstanding

Income from continuing operations and net income per common share is computed in accordance with accounting standards related to earnings per share. Basic earnings per share is calculated using the weighted-average number of common shares outstanding during the year. Share-based payment awards that entitle their holders to receive nonforfeitable dividends before vesting should be considered participating securities and, as such, should be included in the calculation of basic earnings

per share. The Company's restricted stock unit awards which contain nonforfeitable rights to dividends are considered participating securities. Diluted earnings per share reflects the assumed exercise and conversion of all dilutive securities. Shares held by the Retirement Savings Plan are considered outstanding for both basic and diluted earnings per share. There are no significant adjustments to income from continuing operations and net income for purposes of computing income available to common stockholders for the years ended December 31, 2016 , 2015 and 2014 . A reconciliation of the weighted-average number of common shares outstanding used in the calculation of basic and diluted earnings per share follows:

	Weighted-Average Common Shares Outstanding		
	2016	2015	2014
Basic	**54,191,013**	55,028,063	54,791,030
Dilutive effect of:			
Stock options	**166,986**	206,778	355,595
Performance share awards	**273,314**	278,378	319,704
Convertible senior subordinated debt	**—**	—	245,230
Non-Employee Director Deferred Stock Plan	**—**	—	11,708
Diluted	**54,631,313**	55,513,219	55,723,267

The calculation of weighted-average diluted shares outstanding excludes all anti-dilutive shares. During 2016 , 2015 and 2014 , the Company excluded 262,336 , 214,032 and 89,924 stock awards, respectively, from the calculation of diluted weighted-average shares outstanding as the stock awards were considered anti-dilutive.

On June 16, 2014, $224 (par value) of the 3.375% Convertible Senior Subordinated Notes due in March 2027 (the "3.375% Convertible Notes") were surrendered for conversion. On June 24, 2014, the Company exercised its right to redeem the remaining $55,412 principal amount of the Notes, effective July 31, 2014, and elected to pay cash to holders of the Notes surrendered for conversion, including the value of any residual shares of common stock that were payable to the holders electing to convert their notes into an equivalent share value. Accordingly, the potential shares issuable for the 3.375% Convertible Notes were included in diluted average common shares outstanding for the period prior to the June 24, 2014 notification date. Under the net share settlement method, there were 245,230 potential shares issuable under the Notes that were considered dilutive in 2014, respectively.

18. Changes in Accumulated Other Comprehensive Income by Component

The following tables set forth the changes in accumulated other comprehensive income by component for the years ended December 31, 2016 and December 31, 2015 :

	Gains and Losses on Cash Flow Hedges	Pension and Other Postretirement Benefit Items	Foreign Currency Items	Total
January 1, 2016	**$ 115**	**$ (105,703)**	**$ (37,664)**	**$ (143,252)**
Other comprehensive loss before reclassifications to consolidated statements of income	**(739)**	**(16,137)**	**(48,367)**	**(65,243)**
Amounts reclassified from accumulated other comprehensive income to the consolidated statements of income	**397**	**7,270**	**—**	**7,667**
Net current-period other comprehensive loss	**(342)**	**(8,867)**	**(48,367)**	**(57,576)**
December 31, 2016	**$ (227)**	**$ (114,570)**	**$ (86,031)**	**$ (200,828)**

	Gains and Losses on Cash Flow Hedges	Pension and Other Postretirement Benefit Items	Foreign Currency Items	Total
January 1, 2015	$ (732)	$ (115,289)	$ 16,568	$ (99,453)
Other comprehensive loss before reclassifications to consolidated statements of income	(70)	(6,921)	(54,232)	(61,223)
Amounts reclassified from accumulated other comprehensive income to the consolidated statements of income	917	16,507	—	17,424
Net current-period other comprehensive income (loss)	847	9,586	(54,232)	(43,799)
December 31, 2015	$ 115	$ (105,703)	$ (37,664)	$ (143,252)

The following table sets forth the reclassifications out of accumulated other comprehensive income by component for the years ended December 31, 2016 and December 31, 2015 :

Details about Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income		Affected Line Item in the Consolidated Statements of Income
	2016	2015	
Gains and losses on cash flow hedges			
Interest rate contracts	**$ (557)**	$ (853)	Interest expense
Foreign exchange contracts	**(61)**	(490)	Net sales
	(618)	(1,343)	Total before tax
	221	426	Tax benefit
	(397)	(917)	Net of tax
Pension and other postretirement benefit items			
Amortization of prior-service credits, net	**$ 163**	$ 259	(A)
Amortization of actuarial losses	**(11,326)**	(16,015)	(A)
Settlement loss	**—**	(9,939)	(A)
	(11,163)	(25,695)	Total before tax
	3,893	9,188	Tax benefit
	(7,270)	(16,507)	Net of tax
Total reclassifications in the period	**$ (7,667)**	$ (17,424)	

(A) These accumulated other comprehensive income components are included within the computation of net periodic pension cost. See Note 11.

19. Information on Business Segments

Industrial is a global manufacturer of highly-engineered, high-quality precision components, products and systems for critical applications serving a diverse customer base in end-markets such as transportation, industrial equipment, consumer products, packaging, electronics, medical devices, and energy. Focused on innovative custom solutions, Industrial participates in the design phase of components and assemblies whereby customers receive the benefits of application and systems engineering, new product development, testing and evaluation, and the manufacturing of final products. Products are sold primarily through its direct sales force and global distribution channels. Industrial's Molding Solutions businesses design and manufacture customized hot runner systems, advanced mold cavity sensors and process control systems, and precision high cavitation mold and cube mold assemblies - collectively, the enabling technologies for many complex injection molding applications. Industrial's Nitrogen Gas Products business manufactures nitrogen gas springs and manifold systems used to precisely control stamping presses. Industrial's Engineered Components businesses manufacture and supply precision mechanical products used in transportation and industrial applications, including mechanical springs, high-precision punched and fine-blanked components, and retention rings that position parts on a shaft or other axis. Engineered Components is equipped to produce many types of precision engineered springs, from fine hairsprings for electronics and instruments to large heavy-duty springs for machinery.

Industrial has a diverse customer base with products purchased by durable goods manufacturers located around the world in industries including transportation, consumer products, packaging, farm and mining equipment, telecommunications, medical devices, home appliances and electronics.

Industrial competes with a broad base of large and small companies engaged in the manufacture and sale of custom metal components, products and assemblies, precision molds, and hot runner systems. Industrial competes on the basis of quality, service, reliability of supply, engineering and technical capability, geographic reach, product breadth, innovation, design, and price. Industrial has manufacturing, distribution and assembly operations in the United States, Brazil, China, Germany, Italy, Mexico, Singapore, Sweden and Switzerland. Industrial also has sales and service operations in the United States, Brazil, Canada, Czech Republic, China/Hong Kong, France, Germany, India, Italy, Japan, Mexico, the Netherlands, Portugal, Singapore, Slovakia, South Africa, South Korea, Spain, Switzerland, Thailand and the United Kingdom.

Aerospace is a global provider of fabricated and precision-machined components and assemblies for original equipment manufacturer ("OEM") turbine engine, airframe and industrial gas turbine builders, and the military. The Aerospace aftermarket business provides jet engine component maintenance repair and overhaul ("MRO") services, including our Component Repair Programs ("CRPs"), for many of the world's major turbine engine manufacturers, commercial airlines and the military. The Aerospace aftermarket activities also include the manufacture and delivery of aerospace aftermarket spare parts, including the revenue sharing programs ("RSPs") under which the Company receives an exclusive right to supply designated aftermarket parts over the life of the related aircraft engine program.

Aerospace's OEM business supplements the leading jet engine OEM capabilities and competes with a large number of fabrication and machining companies. Competition is based mainly on quality, engineering and technical capability, product breadth, new product introduction, timeliness, service and price. Aerospace's fabrication and machining operations, with facilities in Arizona, Connecticut, Michigan, Ohio, Utah and Singapore, produce critical engine and airframe components through technically advanced manufacturing processes.

The Aerospace aftermarket business supplements jet engine OEMs' maintenance, repair and overhaul capabilities, and competes with the service centers of major commercial airlines and other independent service companies for the repair and overhaul of turbine engine components. The manufacture and supply of aerospace aftermarket spare parts, including those related to the RSPs, are dependent upon the reliable and timely delivery of high-quality components. Aerospace's aftermarket facilities, located in Connecticut, Ohio and Singapore, specialize in the repair and refurbishment of highly engineered components and assemblies such as cases, rotating life limited parts, rotating air seals, turbine shrouds, vanes and honeycomb air seals.

The Company evaluates the performance of its reportable segments based on the operating profit of the respective businesses, which includes net sales, cost of sales, selling and administrative expenses and certain components of other expense (income), net, as well as the allocation of corporate overhead expenses.

Sales between the business segments and between the geographic areas in which the businesses operate are accounted for on the same basis as sales to unaffiliated customers. Additionally, revenues are attributed to countries based on the location of facilities.

The following table (in millions) sets forth summarized financial information by reportable business segment:

		Industrial	Aerospace	Other	Total Company
Sales					
	2016	**$ 824.2**	**$ 406.5**	**$ —**	**$ 1,230.8**
	2015	782.3	411.7	—	1,194.0
	2014	822.1	440.0	—	1,262.0
Operating profit					
	2016	**$ 129.7**	**$ 62.5**	**$ —**	**$ 192.2**
	2015	103.0	65.4	—	168.4
	2014	108.4	71.6	—	180.0
Assets					
	2016	**$ 1,356.1**	**$ 647.8**	**$ 133.7**	**$ 2,137.5**
	2015	1,241.2	654.1	166.5	2,061.9
	2014	1,282.0	655.0	136.9	2,073.9
Depreciation and amortization					
	2016	**$ 49.5**	**$ 30.0**	**$ 0.7**	**$ 80.2**
	2015	46.0	30.8	1.3	78.2
	2014	54.7	24.9	1.8	81.4
Capital expenditures					
	2016	**$ 25.9**	**$ 21.1**	**$ 0.5**	**$ 47.6**
	2015	28.7	17.2	0.1	46.0
	2014	36.1	20.9	0.4	57.4

Notes:
One customer, General Electric, accounted for 17% , 18% and 19% of the Company's total revenues in 2016 , 2015 and 2014 , respectively.
"Other" assets include corporate-controlled assets, the majority of which are cash and deferred tax assets.

A reconciliation of the total reportable segments' operating profit to income from continuing operations before income taxes follows (in millions):

	2016	2015	2014
Operating profit	**$ 192.2**	$ 168.4	$ 180.0
Interest expense	**11.9**	10.7	11.4
Other expense (income), net	**(2.3)**	(0.2)	2.1
Income from continuing operations before income taxes	**$ 182.6**	$ 157.9	$ 166.5

The following table (in millions) summarizes total net sales of the Company by products and services:

	2016	2015	2014
Engineered Components Products	**$ 332.6**	$ 342.2	$ 373.1
Molding Solutions Products	**376.6**	324.6	322.7
Nitrogen Gas Products	**115.0**	115.5	126.2
Aerospace Original Equipment Manufacturing Products	**288.4**	295.7	329.6
Aerospace Aftermarket Products and Services	**118.2**	116.0	110.4
Total net sales	**$ 1,230.8**	$ 1,194.0	$ 1,262.0

The following table (in millions) summarizes total net sales of the Company by geographic area:

		Domestic	International	Other	Total Company
Sales					
	2016	**$ 562.6**	**$ 727.4**	**$ (59.2)**	**$ 1,230.8**
	2015	589.6	661.7	(57.3)	1,194.0
	2014	618.9	677.6	(34.5)	1,262.0
Long-lived assets					
	2016	**$ 368.2**	**$ 1,135.5**	**$ —**	**$ 1,503.6**
	2015	379.2	1,069.9	—	1,449.1
	2014	380.6	1,094.9	—	1,475.4

Notes:
Germany, with sales of $238.3 million, $ 210.5 million and $ 249.9 million in 2016, 2015 and 2014, respectively, represents the only international country with revenues in excess of 10% of the Company's total revenues.
“Other” revenues represent the elimination of intercompany sales between geographic locations, of which approximately 82% were sales from international locations to domestic locations.
Germany, with long-lived assets of $ 449.9 million , $ 362.7 million and $ 410.0 million in 2016, 2015 and 2014, respectively, Singapore, with long-lived assets of $ 238.3 million , $ 246.4 million and $ 255.3 million in 2016, 2015 and 2014, respectively, Switzerland, with long-lived assets of $ 169.3 million , $ 167.0 million and $ 165.7 million in 2016, 2015 and 2014, respectively and China with long-lived assets of $ 151.7 million in 2014, represent the only international countries that exceeded 10% of the Company's total long-lived assets in those years.

20. Commitments and Contingencies

Leases

The Company has various noncancellable operating leases for buildings, office space and equipment. Rent expense was $12,939 , $11,166 and $12,745 for 2016, 2015 and 2014 , respectively. Minimum rental commitments under noncancellable leases in years 2017 through 2021 are $7,882 , $6,321 , $4,271 , $3,740 and $3,430 , respectively, and $7,811 thereafter. The rental expense and minimum rental commitments of leases with step rent provisions are recognized on a straight-line basis over the lease term.

Product Warranties

The Company provides product warranties in connection with the sale of certain products. From time to time, the Company is subject to customer claims with respect to product warranties. Liabilities related to product warranties and extended warranties were not material as as of December 31, 2016 or 2015 .

Contract Matters

In November 2016, the Company’s previously disclosed arbitration with Triumph Actuation Systems - Yakima, LLC ("Triumph") was concluded. The Company was awarded $9,212 , plus interest on the judgment of $1,415 , which amounts were received on January 3, 2017. The outcome did not have a material impact on the Company's consolidated financial position, liquidity or consolidated results of operations.

21. Accounting Changes

In March 2016, the FASB amended its guidance related to the accounting for certain aspects of share-based payments to employees. The amended guidance requires that all tax effects related to share-based payments are recorded at settlement (or expiration) through the income statement, rather than through equity. Cash flows related to excess tax benefits will no longer be separately classified as a financing activity apart from other income tax cash flows. The amended guidance also allows for an employer to repurchase additional employee shares for tax withholding purposes without requiring liability accounting and clarifies that all cash payments made to tax authorities on an employee’s behalf for withheld shares should be presented as a financing activity on the Consolidated Statements of Cash Flows. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted, and the Company elected to early adopt in the third quarter of 2016. See Note 12 of the Consolidated Financial Statements for additional details related to the Company's adoption of this amended guidance.

In November 2015, the FASB amended its guidance related to the balance sheet classification of deferred income taxes. The amended guidance removes the requirement to separate and classify deferred income tax liabilities and assets into current and non-current amounts and requires an entity to now classify all deferred tax liabilities and assets as non-current. The amended guidance can be adopted either on a prospective or retrospective basis and is effective for interim and annual periods beginning after December 15, 2016. Early adoption is permitted. The provisions of the amended guidance were adopted on a prospective basis during the first quarter of 2016. The provisions resulted in the classification of $26,639 and $1,290 of current deferred income tax assets and liabilities, respectively, into non-current deferred income tax assets and liabilities on the Consolidated Balance Sheet as of December 31, 2016.

In April 2015, the FASB amended its guidance related to the presentation of debt issuance costs. The amended guidance specifies that debt issuance costs related to notes shall be reported in the balance sheet as a direct deduction from the face amount of that note and that amortization of debt issuance costs shall be reported as interest expense. The amended guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015 and should be applied retrospectively. The Company adopted the guidance during the first quarter of 2016 and it did not have a material impact on its Consolidated Financial Statements.

22. Subsequent Event

On February 2, 2017, the Company entered into the fourth amendment of its fifth amended and restated revolving credit agreement (the “the Fourth Amendment”) and retained Bank of America, N.A as the Administrative Agent for the lenders. The Fourth Amendment increases the facility to $850,000 and extends the maturity date to February 2022. The Fourth Amendment also increases the existing accordion feature, allowing the Company to request additional borrowings of up to $350,000 . The Company may exercise the accordion feature upon request to the Administrative Agent as long as an event of default has not occurred or is not continuing. The borrowing availability of $850,000 , pursuant to the terms of the Fourth Amendment, allow for multi- currency borrowing which includes euro, sterling or Swiss franc borrowing, up to $600,000 . Depending on the Company’s consolidated leverage ratio, and at the election of the Company, borrowings under the Fourth Amendment will bear interest at either LIBOR plus a margin of between 1.10% and 1.70% or the base rate plus a margin of 0.10% to 0 .70% . See Footnote 7 of the Consolidated Financial Statements.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Barnes Group Inc.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, of comprehensive income, of changes in stockholders' equity and of cash flows present fairly, in all material respects, the financial position of Barnes Group Inc. and its subsidiaries (the "Company") at December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index appearing under item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control - Integrated Framework 2013* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 12 and Note 21 to the consolidated financial statements, the Company changed the manner in which it accounts for share based compensation due to the adoption of ASU 2016-09, *Improvements to Employee Share Based Payment Accounting* in 2016. As discussed in Note 13 and Note 21 to the consolidated financial statements, the Company changed the manner in which it accounts for the classification of deferred taxes due to the adoption of ASU 2015-17, *Balance Sheet Classification of Deferred Taxes* in 2016.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As described in Management's Report on Internal Control over Financial Reporting appearing under item 9A, management has excluded FOBOHA from its assessment of internal control over financial reporting as of December 31, 2016 because it was acquired by the Company in a purchase business combination during 2016. We have also excluded FOBOHA from our audit of internal control over financial reporting. FOBOHA is a wholly-owned subsidiary whose total assets and total net sales represent 3% and 1%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2016.

/s/ PRICEWATERHOUSECOOPERS LLP

Hartford, Connecticut
February 21, 2017

QUARTERLY DATA (UNAUDITED)

(Dollars in millions, except per share data)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
2016					
Net sales	**$ 288.3**	**$ 306.7**	**$ 311.6**	**$ 324.2**	**$ 1,230.8**
Gross profit [1]	**102.1**	**109.5**	**113.0**	**115.9**	**440.5**
Operating income	**41.5**	**47.5**	**51.8**	**51.4**	**192.2**
Net income	**28.8**	**33.2**	**36.8**	**36.7**	**135.6**
Per common share:					
Basic	**0.53**	**0.61**	**0.68**	**0.68**	**2.50**
Diluted	**0.53**	**0.61**	**0.67**	**0.67**	**2.48**
Dividends	**0.12**	**0.13**	**0.13**	**0.13**	**0.51**
Market prices (high - low)	**$35.81-30.07**	**$37.75-31.13**	**$41.86-32.55**	**$49.90-37.88**	**$49.90-30.07**
2015					
Net sales	$ 300.6	$ 314.9	$ 291.4	$ 287.0	$ 1,194.0
Gross profit [1]	102.2	110.8	100.3	97.8	411.2
Operating income	43.9	50.6	43.7	30.1	168.4
Net income	29.1	34.2	33.7	24.4	121.4
Per common share:					
Basic	0.53	0.62	0.61	0.45	2.21
Diluted	0.52	0.61	0.61	0.44	2.19
Dividends	0.12	0.12	0.12	0.12	0.48
Market prices (high - low)	$41.00-33.75	$41.74-38.75	$41.78-35.33	$39.74-33.00	$41.78-33.00

(1) Sales less cost of sales.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

Management, including the Company's President and Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures as of the end of the period covered by this report. We completed the acquisition of FOBOHA on August 31, 2016 and it represented approximately 3% and 1% of our total assets and total net sales, respectively, as of and for the year ended December 31, 2016. In accordance with applicable SEC guidance, the scope of our assessment of the effectiveness of disclosure controls and procedures does not include FOBOHA as it was not practical to do so given the date of acquisition. Based upon, and as of the date of, our evaluation, the President and Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective, in all material respects and designed to provide reasonable assurance that information required to be disclosed in the reports the Company files and submits under the Securities Exchange Act of 1934, as amended, is (i) recorded, processed, summarized and reported as and when required and (ii) is accumulated and communicated to the Company's management, including our President and Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). We completed the acquisition of FOBOHA on August 31, 2016 and it represented approximately 3% and 1% of our total assets and total net sales, respectively, as of and for the year ended December 31, 2016. In accordance with applicable SEC guidance, the scope of our assessment of the effectiveness of internal control over financial reporting does not include FOBOHA as it was not practical to do so given the date of acquisition. Under

the supervision and with the participation of management, including the principal executive officer and principal financial officer, the Company conducted an assessment of the effectiveness of its internal control over financial reporting based on the framework in the "Internal Control - Integrated Framework 2013" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the assessment under this framework, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2016.

PricewaterhouseCoopers LLP, the independent registered public accounting firm that audited the financial statements included in this Annual Report, has issued an attestation report on the Company's internal control over financial reporting as of December 31, 2016, which appears on page 70 of this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

There has been no change to our internal control over financial reporting during the Company's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information with respect to our directors and corporate governance may be found in the “Governance” and "Stock Ownership" sections of our definitive proxy statement to be delivered to stockholders in connection with the Annual Meeting of Stockholders to be held on May 5, 2017 (the “Proxy Statement”). Such information is incorporated herein by reference.

EXECUTIVE OFFICERS

The Company’s executive officers as of the date of this Annual Report are as follows:

Executive Officer	Position	Age as of December 31, 2016
Patrick J. Dempsey	President and Chief Executive Officer	52
Michael A. Beck	Senior Vice President, Barnes Group Inc., and President, Barnes Aerospace	56
James P. Berklas, Jr.	Senior Vice President, General Counsel and Secretary	45
Dawn N. Edwards	Senior Vice President, Human Resources	48
Scott A. Mayo	Senior Vice President, Barnes Group Inc., and President, Barnes Industrial	49
Christopher J. Stephens, Jr.	Senior Vice President, Finance and Chief Financial Officer	52

Each officer holds office until his or her successor is appointed and qualified or otherwise as provided in the Company’s Amended and Restated By-Laws. No family relationships exist among the executive officers of the Company. Except for Messrs. Beck, Berklas and Mayo, each of the Company’s executive officers has been employed by the Company or its subsidiaries in an executive or managerial capacity for at least the past five years.

Mr. Dempsey was appointed President and Chief Executive Officer effective March 1, 2013. From February 2012 until such appointment, he served as Senior Vice President and Chief Operating Officer. From October 2008 until February 2012, he served as Vice President, Barnes Group Inc. and President, Logistics and Manufacturing Services. Prior to that, he held a series of roles of increasing responsibility since joining the Company in October 2000. In October 2007, he was appointed Vice President, Barnes Group Inc. and President, Barnes Distribution. In November 2004, he was promoted to Vice President, Barnes Group Inc. and President, Barnes Aerospace. Mr. Dempsey is currently a director of Nucor Corporation, having been appointed as of December 1, 2016.

Mr. Beck was appointed Senior Vice President, Barnes Group Inc. and President, Barnes Aerospace effective March 1, 2016. Mr. Beck came to Barnes Group with over 27 years of global aerospace experience. Prior to joining Barnes Group, Mr. Beck was the Senior Vice President & General Manager, Fuel and Motion Control, a $1B division of Eaton’s Aerospace Group. Prior to this, he was the Chief Executive Officer of GKN’s Aerospace Engine Systems business, where he led the due diligence, business synergies and integration of a significant acquisition. Prior to that, he was the President and Chief Executive Officer of GKN’s global Propulsion Systems and Special Products business. Earlier in his career, Mr. Beck was the Chief Operating Officer and Site Executive for GKN’s St. Louis, Missouri business.

Mr. Berklas was appointed Senior Vice President, General Counsel and Secretary, effective August 1, 2015. Before joining the Company, from 2008 to 2015, Mr. Berklas served in a variety of positions at the global nutrition company, Herbalife Ltd, most recently as Senior Vice President, Associate General Counsel, Chief Compliance Officer and Associate Corporate Secretary. Prior to that, from 2005 to 2008, Mr. Berklas served as General Counsel and Corporate Secretary for Marietta Corporation, a personal care products company. From 2006 to 2008, he also served as the Senior Vice President and Hotel Division General Manager for Marietta’s hotel product division.

Ms. Edwards was appointed Senior Vice President, Human Resources effective August 2009. From December 2008 until August 2009, she served as Vice President of Human Resources - Global Operations. From September 1998

until December 2008, Ms. Edwards served as Group Director, Human Resources for Barnes Aerospace, Associated Spring and Barnes Industrial. Ms. Edwards joined the Company in September 1998.

Mr. Mayo was appointed Senior Vice President, Barnes Group Inc. and President, Barnes Industrial effective March 17, 2014. Before joining the Company, from 2012 to 2014, Mr. Mayo served as Vice President and General Manager, Power Sector, Flow Control, a division of Flowserve Corporation. From 2010 to 2012, he served as Vice President and General Manager, General Industries Sector, Flow Control Division. From 2009 to 2010, he served as Vice President, Marketing for the Flow Control Division. Prior to that, from 2002 to 2008, Mr. Mayo held a series of roles including General Manager, Flow Control Division China based in Shanghai, China; Director, Marketing, Flow Control Division, based in Raleigh, NC; Director and General Manager, Aftermarket, Raleigh, NC; and Director, Strategic Planning and Business Development, also based in Raleigh, NC.

Mr. Stephens was appointed Senior Vice President, Finance and Chief Financial Officer, Barnes Group Inc. effective January 2009. Prior to joining the Company, Mr. Stephens held key leadership roles at Honeywell International, serving as President of the Consumer Products Group from 2007 to 2008, and Vice President and Chief Financial Officer of Honeywell Transportation Systems from 2003 to 2007. Prior to Honeywell, he held roles with increasing responsibility at The Boeing Company, serving as Vice President and General Manager, Boeing Electron Dynamic Devices; Vice President, Business Operations, Boeing Space and Communications; and Vice President and Chief Financial Officer, Boeing Satellite Systems.

Items 11-14.

The information called for by Items 11-14 is incorporated by reference to the "Governance," "Stock Ownership," "Executive Compensation," "Director Compensation in 2016," "Securities Authorized for Issuance Under Equity Compensation Plans," "Related Person Transactions," and "Principal Accountant Fees and Services" sections in our Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedule

(a)(1) The following Financial Statements and Supplementary Data of the Company are set forth herein under Item 8 of this Annual Report:

Consolidated Statements of Income for the years ended December 31, 2016, 2015 and 2014
Consolidated Balance Sheets as of December 31, 2016 and 2015
Consolidated Statements of Comprehensive Income for the years ended December 31, 2016, 2015 and 2014
Consolidated Statements of Cash Flows for the years ended December 31, 2016, 2015 and 2014
Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2016, 2015 and 2014
Notes to Consolidated Financial Statements
Report of Independent Registered Public Accounting Firm

(a)(2) See Financial Statement Schedule under Item 15(c).

(a)(3) See Item 15(b) below.

(b) The Exhibits required by Item 601 of Regulation S-K are filed as Exhibits to this Annual Report and indexed at pages 81 through 85 of this Annual Report, which index is incorporated herein by reference.

(c) Financial Statement Schedule.

Item 16. Form 10-K Summary

None.

Schedule II—Valuation and Qualifying Accounts
Years Ended December 31, 2016 , 2015 and 2014
(In thousands)

Allowances for Doubtful Accounts:		
Balance January 1, 2014	$	3,438
Provision charged to income		1,523
Doubtful accounts written off		(493)
Other adjustments [1]		(595)
Balance December 31, 2014		3,873
Provision charged to income		1,248
Doubtful accounts written off		(404)
Other adjustments [1]		(632)
Balance December 31, 2015		4,085
Provision charged to income		**863**
Doubtful accounts written off		**(910)**
Other adjustments [1]		**(46)**
Balance December 31, 2016	**$**	**3,992**

(1) These amounts are comprised primarily of foreign currency translation and other reclassifications.

Schedule II—Valuation and Qualifying Accounts
Years Ended December 31, 2016 , 2015 and 2014
(In thousands)

Valuation Allowance on Deferred Tax Assets:		
Balance January 1, 2014	$	18,873
Additions charged to income tax expense		1,049
Additions charged to other comprehensive income		(30)
Reductions credited to income tax expense		(2,303)
Changes due to foreign currency translation		(1,733)
Balance December 31, 2014		15,856
Additions charged to income tax expense		1,043
Reductions charged to other comprehensive income		(59)
Reductions credited to income tax expense		(1,216)
Changes due to foreign currency translation		(2,204)
Acquisitions [1]		981
Balance December 31, 2015		14,401
Additions charged to income tax expense		**759**
Reductions charged to other comprehensive income		**(17)**
Reductions credited to income tax expense [2]		**(5,638)**
Changes due to foreign currency translation		**(133)**
Acquisition [3]		**5,585**
Balance December 31, 2016	**$**	**14,957**

(1) The increase in 2015 reflects the valuation allowances recorded at the Thermoplay and Priamus businesses which were acquired in the third and fourth quarters of 2015, respectively.
(2) The reductions in 2016 relate primarily to net operating losses that were fully valued. These net operating losses have subsequently expired during 2016 (lapse of applicable carry forward periods) and the corresponding valuation allowance was reduced accordingly.
(3) The increase in 2016 reflects the valuation allowance recorded at the FOBOHA business, which was acquired in the third quarter of 2016.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 21, 2017

BARNES GROUP INC.

By /S/ PATRICK J. DEMPSEY

Patrick J. Dempsey

President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below as of the above date by the following persons on behalf of the Company in the capacities indicated.

/S/ PATRICK J. DEMPSEY

Patrick J. Dempsey
President and Chief Executive Officer
(Principal Executive Officer), and Director

/S/ CHRISTOPHER J. STEPHENS, JR.

Christopher J. Stephens, Jr.
Senior Vice President, Finance
Chief Financial Officer
(Principal Financial Officer)

/S/ MARIAN ACKER

Marian Acker
Vice President, Controller
(Principal Accounting Officer)

/S/ THOMAS O. BARNES

Thomas O. Barnes
Director

/S/ ELIJAH K. BARNES

Elijah K. Barnes
Director

/S/ GARY G. BENANAV

Gary G. Benanav
Director

/S/ THOMAS J. HOOK

Thomas J. Hook
Director

/S/ MYLLE H. MANGUM

Mylle H. Mangum
Director

/S/ HANS-PETER MÄNNER

Hans-Peter Männer
Director

/S/ HASSELL H. MCCLELLAN

Hassell H. McClellan
Director

/S/ WILLIAM J. MORGAN

William J. Morgan
Director

/S/ JOANNA L. SOHOVICH

JoAnna L. Sohovich
Director

EXHIBIT INDEX

Barnes Group Inc.

Annual Report on Form 10-K
for the Year ended December 31, 2016

Exhibit No.	Description	Reference
2.1 *	Asset Purchase Agreement dated February 22, 2013 between the Company and MSC Industrial Direct Co., Inc.	Incorporated by reference to Exhibit 2.1 to the Company's report on Form 10-Q for the quarter ended March 31, 2013.
2.2 *	Share Purchase and Assignment Agreement dated September 30, 2013 among the Company, two of its subsidiaries, Otto Männer Holding AG (the "Seller"), and the three shareholders of Seller.	Incorporated by reference to Exhibit 2.1 to Form 8-K filed by the Company on October 4, 2013.
3.1	Restated Certificate of Incorporation; Certificate of Designation, Preferences and Rights of Series A Junior Participating Preferred Stock; Certificate of Change of Location of registered office and of registered agent, dated December 13, 2002; Certificate of Merger of domestic limited liability company into a domestic company, dated May 19, 2004; Certificate of Amendment of Restated Certificate of Incorporation, dated April 20, 2006; and Certificate of Amendment of Restated Certificate of Incorporation, dated as of May 3, 2013.	Incorporated by reference to Exhibit 3.1 to the Company's report on Form 10-Q for the quarter ended June 30, 2013.
3.2	Amended and Restated By-Laws.	Incorporated by reference to Exhibit 3.1 to Form 8-K filed by the Company on February 11, 2016.
10.1	(i) Fifth Amended and Restated Senior Unsecured Revolving Credit Agreement, dated September 27, 2011.	Incorporated by reference to Exhibit 4.1 to the Company's report on Form 10-Q for the quarter ended June 30, 2013.
	(ii) Amendment No. 2 and Joinder to Credit Agreement dated as of September 27, 2013 (amending Fifth Amended and Restated Senior Unsecured Revolving Credit Agreement, dated as of September 27, 2011).	Incorporated by reference to Exhibit 4.1 to the Company's report on Form 10-Q for the quarter ended September 30, 2013.
	(iii) Amendment No. 3 to Credit Agreement dated as of October 15, 2014.	Incorporated by reference to Exhibit 10.1(iii) to the Company's report on Form 10-K for the year ended December 31, 2014.
10.2	Note Purchase Agreement, dated as of October 15, 2014, among the Company and New York Life Insurance Company, New York Life Insurance and Annuity Corporation and New York Life Insurance and Annuity Corporation Institutionally Owned Life Insurance Separate Account (BOLI 30C).	Incorporated by reference to Exhibit 10.1 to Form 8-K filed by the Company on October 17, 2014.
10.3 **	Barnes Group Inc. Management Incentive Compensation Plan, amended October 22, 2008.	Filed with this report.
10.4 **	Barnes Group Inc. Performance-Linked Bonus Plan for Selected Executive Officers, as amended February 8, 2011.	Filed with this report.
10.5 **	(i) Offer Letter between the Company and Patrick Dempsey, dated February 22, 2013.	Incorporated by reference to Exhibit 10.3 to the Company's report on Form 10-Q for the quarter ended March 31, 2013.

Exhibit No.	Description	Reference
	(ii) Amendment to Offer Letter to Patrick Dempsey, dated January 6, 2015.	Incorporated by reference to Exhibit 10.6(ii) to the Company's report on Form 10-K for the year ended December 31, 2014.
	(iii) Employee Non-Disclosure, Non-Competition, Non-Solicitation and Non-Disparagement Agreement between the Company and Patrick J. Dempsey, dated February 27, 2013.	Incorporated by reference to Exhibit 10.4 to the Company's report on Form 10-Q for the quarter ended March 31, 2013.
10.6 **	(i) Amendment to Offer Letter to Christopher J. Stephens, Jr., dated June 7, 2013.	Incorporated by reference to Exhibit 10.2 to the Company's report on Form 10-Q for the quarter ended June 30, 2013.
	(ii) Amendment to Amended Offer Letter to Christopher J. Stephens, Jr., dated February 12, 2014.	Incorporated by reference to Exhibit 10.6(ii) to the Company's report on Form 10-K for the year ended December 31, 2013.
10.7 **	Offer Letter to Scott A. Mayo, dated January 28, 2014.	Incorporated by reference to Exhibit 10.2 to the Company's report on Form 10-Q for the quarter ended March 31, 2014.
10.8 **	Offer Letter to James P. Berklas, Jr., dated June 5, 2015.	Incorporated by reference to Exhibit 10.1 to the Company's report on Form 10-Q for the quarter ended September 30, 2015.
10.9 **	(i) Barnes Group Inc. Retirement Benefit Equalization Plan, as amended and restated effective January 1, 2013.	Incorporated by reference to Exhibit 10.39(ii) to the Company's report on Form 10-K for the year ended December 31, 2012.
	(ii) First Amendment to the Barnes Group Inc. Retirement Benefit Equalization Plan dated December 12, 2014.	Incorporated by reference to Exhibit 10.9(ii) to the Company's report on Form 10-K for the year ended December 31, 2014.
10.10 **	(i) Barnes Group Inc. Supplemental Senior Officer Retirement Plan, as amended and restated effective January 1, 2009.	Filed with this report.
	(ii) Amendment to the Barnes Group Inc. Supplemental Senior Officer Retirement Plan dated December 30, 2009.	Filed with this report.
	(iii) Second Amendment to the Barnes Group Inc. Supplemental Senior Officer Retirement Plan dated December 12, 2014.	Incorporated by reference to Exhibit 10.10(iii) to the Company's report on Form 10-K for the year ended December 31, 2014.
10.11 **	(i) Amended and Restated Supplemental Executive Retirement Plan effective April 1, 2012.	Filed with this report.
	(ii) Amendment 2013-1 to the Barnes Group Inc. Supplemental Executive Retirement Plan dated July 23, 2013.	Incorporated by reference to Exhibit 10.3 to the Company's report on Form 10-Q for the quarter ended June 30, 2013.
	(iii) Amendment 2014-1 to the Barnes Group Inc. Supplemental Executive Retirement Plan dated December 12, 2014.	Incorporated by reference to Exhibit 10.11(iii) to the Company's report on Form 10-K for the year ended December 31, 2014.
10.12 **	Barnes Group Inc. Senior Executive Enhanced Life Insurance Program, as amended and restated effective April 1, 2011.	Filed with this report.
10.13 **	Barnes Group Inc. Enhanced Life Insurance Program, as amended and restated effective April 1, 2011.	Filed with this report.
10.14 **	Barnes Group Inc. Executive Group Term Life Insurance Program effective April 1, 2011.	Filed with this report.

Exhibit No.	Description	Reference
10.15 **	Form of Barnes Group Inc. Executive Officer Severance Agreement, as amended March 31, 2010.	Filed with this report.
10.16 **	Form of Barnes Group Inc. Executive Officer Severance Agreement, effective February 19, 2014.	Incorporated by reference to Exhibit 10.1 to the Company's report on Form 10-Q for the quarter ended March 31, 2014.
10.17 **	Barnes Group Inc. Executive Separation Pay Plan, as amended and restated effective January 1, 2012.	Filed with this report.
10.18 **	(i) Trust Agreement between the Company and Fidelity Management Trust Company (Barnes Group 2009 Deferred Compensation Plan) dated September 1, 2009.	Filed with this report.
	(ii) Amended and Restated Barnes Group 2009 Deferred Compensation Plan effective as of April 1, 2012.	Filed with this report.
	(iii) First Amendment to the Barnes Group 2009 Deferred Compensation Plan dated December 12, 2014.	Incorporated by reference to Exhibit 10.18(iii) to the Company's report on Form 10-K for the year ended December 31, 2014.
10.19 **	Barnes Group Inc. Non-Employee Director Deferred Stock Plan, as amended and restated December 31, 2008.	Filed with this report.
10.20 **	Barnes Group Inc. Directors' Deferred Compensation Plan, as amended and restated December 31, 2008.	Filed with this report.
10.21 **	Form of Amended and Restated Contingent Dividend Equivalent Rights Agreement for Officers.	Filed with this report.
10.22 **	Barnes Group Inc. Trust Agreement for Specified Plans.	Filed with this report.
10.23 **	Form of Incentive Compensation Reimbursement Agreement between the Company and certain Officers.	Filed with this report.
10.24 **	Form of Indemnification Agreement between the Company and its Officers and Directors.	Filed with this report.
10.25 **	(i) Barnes Group Inc. Stock and Incentive Award Plan, as amended December 31, 2008.	Filed with this report.
	(ii) Barnes Group Inc. Stock and Incentive Award Plan, as amended March 15, 2010.	Filed with this report.
	(iii) Exercise of Authority Relating to the Stock and Incentive Award Plan, dated March 3, 2009.	Filed with this report.
	(iv) Amendment 2010-1 approved on December 9, 2010 to the Barnes Group Inc. Stock and Incentive Award Plan as amended March 15, 2010.	Filed with this report.
10.26 **	2014 Barnes Group Inc. Stock and Incentive Award Plan.	Incorporated by reference to Annex A to the Company's definitive proxy statement filed with the Securities and Exchange Commission on March 25, 2014.

Exhibit No.	Description	Reference
10.27 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Restricted Stock Unit Summary of Grant and Restricted Stock Unit Agreement for Directors dated February 8, 2012 (for non-management directors).	Filed with this report.
10.28 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Restricted Stock Unit Summary of Grant and Restricted Stock Unit Agreement for Directors dated May 9, 2014 (for non-management directors).	Incorporated by reference to Exhibit 10.2 to the Company's report on Form 10-Q for the quarter ended June 30, 2014.
10.29 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Restricted Stock Unit Summary of Grant and Restricted Stock Unit Agreement for Directors dated February 9, 2016 (for non-management directors).	Filed with this report.
10.30 **	Form of Non-Qualified Stock Option Agreement for employees grade 21 and up.	Filed with this report.
10.31 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Stock Option Summary of Grant and Stock Option Agreement for employees in grade 21 and up dated as of February 8, 2011.	Filed with this report.
10.32 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Stock Option Summary of Grant and Stock Option Agreement for Employees in Grade 21 and up dated May 9, 2014.	Incorporated by reference to Exhibit 10.4 to the Company's report on Form 10-Q for the quarter ended June 30, 2014.
10.33 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Stock Option Summary of Grant and Stock Option Agreement for Employees in Grade 21 and up dated February 9, 2016.	Filed with this report.
10.34 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Restricted Stock Unit Summary of Grant and Restricted Stock Unit Agreement for employees grade 21 and up dated as of February 8, 2011.	Filed with this report.
10.35 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Restricted Stock Unit Summary of Grant for Employees and Restricted Stock Unit Agreement dated February 8, 2012.	Filed with this report.
10.36 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Restricted Stock Unit Summary of Grant for Employees and Restricted Stock Unit Agreement dated May 9, 2014.	Incorporated by reference to Exhibit 10.3 to the Company's report on Form 10-Q for the quarter ended June 30, 2014.
10.37 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Restricted Stock Unit Summary of Grant for Employees and Restricted Stock Unit Agreement dated February 9, 2016.	Filed with this report.
10.38 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Performance Share Award Summary of Grant and Performance Share Award Agreement for Officers and Other Individuals as Designated by the Compensation and Management Development Committee dated as of February 11, 2014.	Incorporated by reference to Exhibit 10.36 to the Company's report on Form 10-K for the year ended December 31, 2013.

Exhibit No.	Description	Reference
10.39 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Performance Share Award Summary of Grant and Performance Share Award Agreement for Officers and Other Individuals as Designated by the Compensation and Management Development Committee dated July 21, 2014.	Incorporated by reference to Exhibit 10.5 to the Company's report on Form 10-Q for the quarter ended June 30, 2014.
10.40 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Performance Share Award Summary of Grant and Performance Share Award Agreement for Officers and Other Individuals as Designated by the Compensation and Management Development Committee dated as of February 11, 2015.	Incorporated by reference to Exhibit 10.40 to the Company's report on Form 10-K for the year ended December 31, 2014.
10.41 **	Form of Barnes Group Inc. Stock and Incentive Award Plan Performance Share Award Summary of Grant and Performance Share Award Agreement for Officers and Other Individuals as Designated by the Compensation and Management Development Committee dated as of February 9, 2016.	Incorporated by reference to Exhibit 10.42 to the Company's report on Form 10-K for the year ended December 31, 2015.
10.42 **	Performance-Linked Bonus Plan for Selected Executive Officers dated as of May 6, 2016.	Filed with this report.
21	List of Subsidiaries.	Filed with this report.
23	Consent of Independent Registered Public Accounting Firm.	Filed with this report.
31.1	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed with this report.
31.2	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed with this report.
32	Certification pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished with this report.
101.INS	XBRL Instance Document.	Filed with this report.
101.SCH	XBRL Taxonomy Extension Schema Document.	Filed with this report.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.	Filed with this report.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.	Filed with this report.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.	Filed with this report.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.	Filed with this report.

* The Company hereby agrees to provide the Commission upon request copies of any omitted exhibits or schedules to this exhibit required by Item 601(b)(2) of Regulation S-K.

** Management contract or compensatory plan or arrangement.

The Company agrees to furnish to the Commission, upon request, a copy of each instrument with respect to which there are outstanding issues of unregistered long-term debt of the Company and its subsidiaries, the authorized principal amount of which does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis.

BARNES GROUP INC.

MANAGEMENT INCENTIVE COMPENSATION PLAN

(as amended on October 22, 2008, effective with respect to awards for 2008)

SECTION 1. PURPOSE

The Management Incentive Compensation Plan (the "MICP") is designed to provide incentive compensation opportunities to persons in key positions who contribute importantly to the success of Barnes Group Inc. (the "Company").

SECTION 2. ADMINISTRATION

The MICP shall be administered by the Compensation Committee of the Board of Directors of the Company, or its successor (the "Committee") unless otherwise provided herein. Amounts paid or projected to be paid under the MICP are referred to herein as "Awards."

SECTION 3. DEFINITIONS

3.1 "Award Period" shall mean the period of time within which Performance is measured for the purpose of determining whether an Award has been earned.

3.2 "Business Unit" shall mean a cost center, profit center or international subsidiary within a Group.

3.3 "Business Unit Fund" shall mean an amount equal to the sum, in the aggregate, of the Individual Targets earned by all of the MICP participants in a Business Unit.

3.4 "CEO" shall mean the President and Chief Executive Officer of the Company.

3.5 "Company Officer" shall mean an executive officer of the Company elected by its Board of Directors.

3.6 "Fund" shall mean an amount equal to the sum, in the aggregate, of the Individual Targets earned by all of the MICP participants in a Group.

3.7 "Group" shall mean the Executive Office, Barnes Industrial, Barnes Distribution, or Barnes Aerospace.

3.8 "Group President" shall mean the president of Barnes Industrial, Barnes Distribution, or Barnes Aerospace.

3.9 "Individual Target" shall mean the percentage of salary for each individual participating in the MICP. The Committee will establish the Individual Target for each MICP participant, by position title, salary grade, or other category before or during the Award Period.

3.10 "Maximum" shall mean a Performance level at or above which the amount paid or projected to be paid for an Award Period is equal to 300% of the Fund for the corresponding Group.

3.11 "Performance" shall mean the performance objectives established by the Committee in advance, with respect to each Group or Business Unit, as the case may be, for an Award Period, for the purpose of determining whether, and to what extent, an Award has been earned by the Group or Business Unit for an Award Period. Performance may be adjusted by the Committee to include or exclude extraordinary and non- recurring items or other factors.

3.12 "Target" shall mean a Performance level at which the amount paid or projected to be paid for an Award Period is equal to 100% of the Fund for the corresponding Group.

3.13 "Threshold" shall mean a Performance level at or above which an Award is earned for an Award Period. For Threshold Performance, the amount paid or projected to be paid for an Award Period is equal to 25% of the Fund for the corresponding Group.

SECTION 4. GROUP FUNDS

If an Award Period is a calendar year, prior to March 1, the Committee shall establish the Threshold, Target and Maximum for each Group. The Committee may also designate one or more intermediate levels of Performance between the Threshold and the Target, and the Target and the Maximum, for a Group, and the percentage of the corresponding Fund that will be available for payment as an Award if Performance equals such intermediate level.

SECTION 5. BUSINESS UNIT FUNDS

If an Award Period is a calendar year, prior to May 1, the CEO shall designate which Business Units, if any, shall have separate Business

Unit Funds. For each such Business Unit, the CEO shall also determine the threshold, target and maximum on the same basis as such measures are determined for a Fund. The CEO may also designate intermediate levels of Performance between the threshold and the target, and the target and the maximum, for the Business Unit and the percentage of the Business Unit Fund that will be available for payment as an Award if Performance equals such intermediate level.

SECTION 6. PARTICIPANTS

If an Award Period is a calendar year, at any time before or during the Award Period the CEO may designate eligible participants in the MICP for that Award Period and the respective Funds or Business Unit Funds, as the case may be, in which they shall participate. The Committee may at any time designate an individual to participate in the MICP for an Award Period and the Fund or Business Unit Fund in which such individual shall participate. Except for (i) participants in the MICP during an Award Period who retire, die or become permanently disabled before Awards are paid for that Award Period pursuant to

Section 10, whose Awards for that Award Period shall be prorated to the date of such retirement, death or permanent disability if it occurs before the last day of that Award Period, and (ii) participants in the MICP during an Award Period whose employment is involuntarily terminated by the Company other than for cause (as determined by the CEO) on or after November 1 of that Award Period (October 1 in the case of the 2008 Award Period) and before Awards are paid for that Award Period pursuant to Section 10, whose Awards for that Award Period shall be prorated to the date of such termination if such termination occurs before the last day of that Award Period, a person must be employed by the Company or one of its subsidiaries on the date when an Award is paid in order to be eligible to receive an Award, unless the CEO decides otherwise in individual cases. For the avoidance of doubt, a participant's Award for any Award Period, including but not limited to an Award that is to be prorated pursuant to the preceding sentence, (A) shall be determined in accordance with the MICP, based on the level of Performance attained in that Award Period, and (B) shall be subject to all of the terms and conditions of the MICP, including without limitation the last sentence of Section 7 and Section 8.2, and (C) shall be paid at the time specified in Section 10.

SECTION 7. AWARDS – BUSINESS UNIT FUNDS

After the end of the Award Period and based on the final Performance of each Business Unit for which a Business Unit Fund has been designated pursuant to Section 5, the CEO, upon the recommendation of the corresponding Company Officer, shall determine each participant's share of the Business Unit Fund (except for any Company Officer who participates in the Business Unit Fund or the Fund of the corresponding Group, whose Award shall be determined by the Committee pursuant to Section 8.1). Without limiting the foregoing, the CEO shall have the authority, subject to Section 9, to make adjustments to the amount of any Business Unit Fund and to adjust or refrain from making an Award to any participant.

SECTION 8. AWARDS – GROUP FUNDS

8.1 After the end of the Award Period and based on the final Performance of each Group, the CEO shall determine each participant's share of the corresponding Group Fund, upon the recommendations of the Company Officers (except for any Company Officer who participates in the Fund). The CEO shall recommend the share of the Executive Office Fund for each Company Officer, other than the CEO. The Committee shall approve the Award to each Company Officer other than the CEO, and determine the appropriate Award for the CEO, based in all instances on Individual Targets and the Performance level achieved.

8.2 Subject to Section 9, the Committee shall have the authority to make adjustments to the Funds and to adjust or refrain from making an Award including, without limitation, making an Award to any Company Officer in excess of his or her calculated Award and recommending to the CEO an Award in excess of the calculated Award for any participant who is not a Company Officer.

SECTION 9. AWARDS ABOVE MAXIMUM

Notwithstanding anything in the MICP to the contrary, no awards in excess of the Maximum shall be made to any person without the approval of the Committee.

SECTION 10. PAYMENT

Awards shall be paid within the 2 1 / 2 months that immediately follow the expiration of the Award Period (i.e., in the case of an Award Period that is a calendar year, on or after January 1 and on or before March 15 of the following calendar year).

SECTION 11. GENERAL

11.1 The interpretation of the MICP by the Committee and its decisions on all questions arising under the MICP shall be conclusive and binding on all participants and the CEO.

11.2 The MICP may be amended at any time, including retroactively, by the Committee.

11.3 All Awards are intended to qualify as short-term deferrals under Treasury Regulation section 1.409A-1(b)(4). The MICP shall be administered, interpreted and construed to carry out that intention, and any provision of the MICP that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any Award will qualify as a short-term deferral, nor does the Company make any other representation, warranty or guaranty to any participant as to the tax consequences of any Award or of participation in the MICP.

Amended 02/17/95
02/20/96
07/20/98
04/11/00
12/12/01
07/19/06
10/22/08

BARNES GROUP INC.

PERFORMANCE-LINKED BONUS PLAN
For Selected Executive Officers

(as amended on February 8, 2011 effective with respect to awards for 2011 and subsequent years)

SECTION 1. PURPOSE

The Performance-Linked Bonus Plan For Selected Executive Officers (the "Plan") is designed to provide cash incentive compensation opportunities to key executives that contribute to the success of Barnes Group Inc. (the "Company") and its subsidiaries. All employees (a) who are executive officers of the Company, (b) whose incentive compensation for any taxable year(s) of the Company commencing on or after January 1, 2001 the Committee (as hereafter defined) anticipates may not be deductible by the Company in whole or in part but for compliance with Section 162(m)(4)(C) of the Internal Revenue Code of 1986 as amended (the "Code"), and (c) who are selected to participate in the Plan, including members of the Board of Directors of the Company who are such employees, are eligible to participate in the Plan.

SECTION 2. ADMINISTRATION

The Plan shall be administered by the Compensation and Management Development Committee of the Board of Directors of the Company, or its successor (the "Committee"). The Committee shall consist of not less than two directors who are not employees of the Company or any subsidiary of the Company and shall be comprised solely of directors who are "outside directors" within the meaning of Section 162(m)(4)(C)(i) of the Code. The Committee shall have authority, subject to the provisions of the Plan, to: select employees to participate in the Plan; establish and administer the Performance (as hereafter defined) objectives and the Award opportunities applicable to each participant and certify whether the goals have been attained; construe and interpret the Plan and any agreement or instrument entered into under the Plan; establish, amend, and waive rules and regulations for the Plan's administration; and make all other determinations which may be necessary or advisable for the administration of the Plan. Any determination by the Committee pursuant to the Plan shall be final, binding and conclusive on all employees and participants and anyone claiming under or through any of them. Amounts paid or projected to be paid under the Plan are referred to herein as "Awards."

SECTION 3. DEFINITIONS

3.1 "Award Period" shall mean the period of time within which Performance is measured for the purpose of determining whether an Award has been earned.

3.2 "CEO" shall mean the President and Chief Executive Officer of the Company.

3.3 "Covered Employee" shall have the meaning set forth in Section 162(m) of the Code.

3.4 "Group" shall mean the consolidated Company, or any business unit, business segment, division, or similar collection of cost centers, profit centers, or international subsidiaries that may be recognized as such by the Committee.

3.5 "Individual Target" shall mean a percentage of salary for each individual participating in the Plan, or a percentage of the Performance Award Pool, as applicable. The Committee will establish the Individual Target for each participant no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed.

3.6 "Maximum" shall mean a Performance level at or above which the amount paid or projected to be paid for an Award Period is equal to such maximum percentage of the Individual Targets as may be established by the Committee for each participant no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed.

3.7 "Performance" shall mean the performance objectives established by the Committee in advance, in writing, in terms of an objective formula or standard, with respect to a Group for an Award Period, for the purpose of determining whether, and to what extent, an Award has been earned by the Group for such Award Period. The Performance objective or objectives applicable to any Award shall consist of any of the following, as the Committee may specify: earnings per share; earnings before taxes; earnings before interest and taxes; earnings before interest, taxes, depreciation and amortization; net income; operating income; performance profit (operating income minus an allocated charge approximating the Company's cost of capital, before or after tax); gross profit; gross margin; operating margin and statistics; improvement in or attainment of expense levels; cost reduction; debt reduction; revenue; working capital; total assets; net assets; stockholders' equity; debt to capital; cash flow; return on equity; return on capital; ratio of operating earnings to capital spending; internal rate of return; liquidity measurements; leverage; financing and other capital raising transactions; cost of capital; customer satisfaction; employee satisfaction; customer growth; sales; attainment of strategic or operating initiatives; operating efficiencies; productivity improvement and productivity ratios; inventory turns; comparison with various stock market indices; stock price; market share; and total shareholder return.

3.8 "Performance Award Pool" shall mean an unfunded pool that may be established by the Committee, for purposes of making Awards as a result of Performance in an Award Period, in accordance with Section 5. If the Committee chooses to establish a Performance Award Pool for any Performance Period, the Committee will establish the Performance Award Pool for such Performance Period no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed.

3.9 "Target" shall mean a Performance level above the Threshold and below the Maximum at which the amount paid or projected to be paid for an Award Period is equal to 100% of the Individual Targets for the members of the corresponding Group.

3.10 "Threshold" shall mean a Performance level at or above which an Award is earned for an Award Period. For Threshold

Performance, the amount paid or projected to be paid for an Award Period is equal to such minimum percentage of the Individual Targets as may be established by the Committee no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed.

SECTION 4. GROUP PERFORMANCE LEVELS

4.1 The Committee shall establish the Performance criteria for each Award Period. The Performance criteria shall be determined in accordance with generally accepted accounting principles, except to the extent the Committee directs otherwise, and shall be designated within the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed. The Committee may specify, during such period, that the Performance criteria will be adjusted by any or all of the following items: extraordinary items, unusual or non-recurring items, effects of discontinued operations, effects of accounting changes, effects of currency fluctuations, effects of restructuring, non-operating items or non-routine financing activities, effects of acquisitions and acquisition expenses, and effects of divestitures and divestiture expenses. With respect to the foregoing, any such Performance criterion or combination of such criteria may apply to the participant's Award opportunity in its entirety or to any designated portion or portions of the

Award opportunity, as the Committee may specify. The terms, formula and Performance criteria specified by the Committee shall preclude discretion to increase the amount of the Award that would otherwise be due upon attainment of the Performance level.

4.2 In addition to the adjustments specified in Section 4.1, and subject to the Committee's exercise of negative discretion pursuant to Section 7.1, prior to payment of a participant's Award for an Award period, each of the following items automatically shall be included or excluded, in whatever combination shall produce the highest Award, to the extent that any of such items affect any Performance criterion applicable to the Award (including but not limited to the criterion of earnings per share): extraordinary items, unusual or non-recurring items, effects of discontinued operations, effects of accounting changes, effects of currency fluctuations, effects of restructuring, non-operating items or non-routine financing activities, effects of acquisitions and acquisition expenses, and effects of divestitures and divestiture expenses.

4.3 If an Award Period is a calendar year, prior to March 31, the Committee shall establish the Threshold, Target and Maximum for each Group, and the method for computing the Award for each participant in the Group for such year if the Threshold, Target or Maximum is attained. If an Award Period is not a calendar year, then the Committee shall establish in writing no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed, the Threshold, Target and Maximum for each Group and the method for computing the Award for each participant in the Group for such Award Period if the Threshold, Target or Maximum is attained. The Committee may also designate one or more intermediate levels of Performance between the Threshold and the Target, and the Target and the Maximum, for a Group, and the percentage of the corresponding Individual Targets that will be available for payment as an Award if Performance equals such intermediate level.

SECTION 5. PERFORMANCE AWARD POOL

The actual amount of such Performance Award Pool shall be based upon the achievement of a Performance objective or objectives during the applicable Award Period. The Committee may specify the amount of the Performance Award Pool as a percentage of any such Performance objectives, a percentage thereof in excess of the Threshold, or another amount which need not bear a strictly mathematical relationship to such Performance objective. The portion of the Performance Award Pool actually awarded as a result of Performance in an Award Period need not be 100% of the Performance Award Pool and shall be subject to the Committee's right to exercise negative discretion pursuant to Section 7.1.

SECTION 6. PARTICIPANTS

If an Award Period is a calendar year, prior to March 31, the Committee shall designate the eligible participants and the respective Groups in which they shall participate. The CEO shall participate in the Executive Office Group for each Award Period. If an Award Period is not a calendar year, then the Committee shall designate the eligible participants, and the respective Groups, no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed. Except for (i) participants in the Plan during an Award Period who retire, die or become permanently disabled, in any case, before Awards are paid for that Award Period pursuant to Section 9, whose Awards for that Award Period shall be prorated to the date of such retirement, death or permanent disability if it occurs before the last day of that Award Period, and
(ii) participants in the Plan during an Award Period whose employment is involuntarily terminated by the Company other than for cause (as determined by the Committee) on or after November 1 of that Award Period and before Awards are paid for that Award

Period pursuant to Section 9, whose Awards for that Award Period shall be prorated to the date of such termination if such termination occurs before the last day of

that Award Period, a person must be employed by the Company or one of its subsidiaries on the date of payment of an Award in order to be eligible to receive an Award. For the avoidance of doubt, a participant's Award for any Award Period, including but not limited to an Award that is to be prorated pursuant to the preceding sentence, (A) shall be determined in accordance with the objective formula or standard that was established by the Committee for the participant's Group for that Award Period in accordance with the Plan, based on the level of Performance attained in that Award Period, and (B) shall be subject to any exercise of "negative discretion" by the Committee, within the meaning of Treasury Regulation Section 1.162-27(e)(2)(iii)(A), and
(C) shall be paid at the time and subject to the conditions specified in Section 9.

SECTION 7. AWARDS

7.1 After the end of the Award Period and based on the final Performance of each Group, the Committee shall determine the Award for each participant, based in all instances on the participant's Individual Target and the Performance level achieved. No provision of the Plan shall preclude the Committee from exercising negative discretion with respect to any Award hereunder, within the meaning of Treasury Regulation Section 1.162-27(e)(2)(iii)(A).

7.2 Subject to Section 8, the Committee shall have the authority to refrain from making an Award to any participant.

SECTION 8. LIMITATIONS

Notwithstanding anything in the Plan to the contrary, no Award in excess of the calculated Award shall be made to any Covered Employee under any circumstances.

Awards at Target shall be greater than Awards at Threshold and less than Awards at Maximum.

Regulations under Section 162(m) of the Code require that a maximum individual Award be established for any Awards to Covered Employees that are intended to qualify as performance-based compensation. For purposes of qualifying Awards as performance-based compensation under such regulations, notwithstanding anything in the Plan to the contrary, no Award in excess of $7 million shall be paid to any Covered Employee for services rendered in any calendar year.

SECTION 9. PAYMENT OF AWARDS

Payment of any Award shall be contingent upon approval by the stockholders of the Company, prior to payment, of the material terms under which the Award is to be paid, in accordance with Section 162(m)(4)(C)(ii) of the Code and the related Treasury regulations. Unless and until such stockholder approval is obtained, no Award shall be paid.

Payment of any Award shall also be contingent upon the Committee's certifying in writing that the Performance level, the applicable Performance objectives related to the funding of the Performance Award Pool (if applicable), and any other material terms applicable to such Award were in fact satisfied, in accordance with Section 162(m)(4)(C)(iii) of the Code and the related Treasury regulations. Unless the Committee so certifies, such Award shall not be paid.

Awards shall be paid within the 2 1/2 months that immediately follow the expiration of the Award Period (i.e., in the case of an Award Period that is a calendar year, on or after January 1 and on or before March 15 of the following calendar year). Awards shall be paid in cash unless otherwise decided by the Committee.

SECTION 10. GENERAL

10.1 The interpretation of the Plan by the Committee and its decisions on all questions arising under the Plan shall be conclusive and binding on all Plan participants.

10.2 The Plan may be amended at any time, including retroactively, by the Committee.

10.3 The Plan supersedes all prior incentive plans, including without limitation the Management Incentive Compensation Plan, for all participants, effective as of January 1, 2001 for the Award Period of calendar year 2001 and Award Periods thereafter.

10.4 Any provision of the Plan to the contrary notwithstanding, (a) Awards to Covered Employees under the Plan are intended to qualify as performance-based compensation under Section 162(m)(4)(C) of the Code, and (b) any provision of the Plan that would prevent an Award to any Covered Employee from so qualifying shall be administered, interpreted and construed to carry out such intention and any provision that cannot be so administered, interpreted and construed shall, to that extent, be disregarded. No provision of the Plan, nor the selection of any eligible employee to participate in the Plan, shall constitute an employment agreement or affect the duration of any participant's employment, which shall remain "employment at will" unless an employment agreement between the Company and the participant provides otherwise. Both the participant and the Company shall remain free to terminate employment at any time to the same extent as if the Plan had not been adopted.

10.5 All Awards are intended to qualify as short-term deferrals under Treasury Regulation Section 1.409A-1(b)(4). The Plan shall be administered, interpreted and construed to carry out that intention, and any provision of the Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any Award will qualify as a short-term deferral, nor does the Company make any other representation, warranty or guaranty to any participant as to the tax consequences of any Award or of participation in the Plan.

SUPPLEMENTAL SENIOR OFFICER RETIREMENT PLAN

as amended effective December 31, 2007 PREAMBLE

Barnes Group Inc. adopted the Supplemental Senior Officer Retirement Plan (the "SSORP") effective April 3, 1996 and amended it effective December 31, 2007. To the extent that any benefits under the SSORP are "grandfathered" from Section 409A of the Code (i.e., are compensation to which Section 409A of the Code does not apply, according to Treasury Regulation section 1.409A-6 or any other applicable Treasury Department guidance), such benefits shall be determined in accordance with, and be governed exclusively by, the provisions of the SSORP as in effect before December 31, 2007. To the extent that any benefits under the SSORP are not "grandfathered" from Section 409A of the Code, such benefits shall be determined in accordance with, and be governed exclusively by, the provisions of the SSORP as amended effective December 31, 2007, which are set forth below.

SECTION 1 DEFINITIONS

The words and phrases defined hereinafter shall have the following meaning unless a different meaning is clearly required by the context of the Plan.

1.1 " ***Accrued Benefit*** " shall mean a monthly benefit payable in the form of a single life annuity commencing on the Participant's Normal Retirement Date, or Deferred Retirement Date if applicable, which is equal to an amount calculated in accordance with Section 3.1.

1.2 " ***Benefits Committee*** " shall mean the Benefits Committee of the Board or its successor.

1.3 " ***Board*** " shall mean the Board of Directors of Barnes Group Inc., or its successor.

1.4 " ***Code*** " shall mean the Internal Revenue Code of 1986, as amended, or as it may be amended from time to time.

1.5 " ***Committee*** " shall mean the Compensation Committee of the Board or its successor.

1.6 " ***Company*** " shall mean Barnes Group Inc. and each subsidiary and affiliated corporation.

1.7 " ***Compensation*** " with respect to any calendar year in which the Participant earns Credited Service, shall mean the sum of (a) the Participant's "Compensation", as defined by the Qualified Plan, except that the limits of Code Section 401(a)(17) shall not apply, and
(b) bonuses paid pursuant to the Management Incentive Compensation Plan and the Performance-Linked Bonus Plan for Selected Executive Officers, or any successor plans. For purposes of determining compensation for a calendar year, payments made under a bonus plan shall be attributed to the year earned.

1.8 " ***Contingent Annuitant*** " shall mean the person designated by the Participant, pursuant to Section 7.4, to receive benefits payable hereunder in the event of the death of the Participant.

1.9 " ***Credited Service*** " shall mean "Credited Service" as defined by the Qualified Plan.

1.10 " ***Deferred Retirement Date*** " shall mean a Participant's actual retirement date, if the Participant remains in active service after his Normal Retirement Date.

1.11 " ***Early Retirement Date*** " shall mean the date on which a Participant retires from the employ of the Company, if such date is before the date the Participant reaches Normal Retirement Date but after the date the Participant has attained age 55 and completed 5 years of Credited Service.

1.12 " ***Effective Date*** " shall be January 1, 1996.

1.13 " ***Final Average Compensation*** " shall mean Compensation averaged over the 5 calendar years, whether or not consecutive, in the last 10 years of Credited Service immediately preceding his termination date which produce the highest such average.

1.14 " ***Normal Retirement Date*** " shall mean the first day of the month coincident with or next following the date a Participant has attained age 62 and completed 10 years of Credited Service.

1.15 " ***Participant*** " shall mean each employee of the Company whom the Board names as a participant in the Plan.

1.16 " ***Plan*** " shall mean the Barnes Group Inc. Supplemental Senior Officer Retirement Plan, as amended and set forth herein or in any amendment hereto.

1.17 " ***Prior Employer Benefit*** " shall mean the benefit (or benefit equivalent) payable by each prior employer from which the Participant has received or is entitled to receive a vested benefit. The Prior Employer Benefit shall be expressed as a lifetime annuity commencing at age 62, and determined in accordance with the guidelines outlined below at the time participation in this Plan is extended to the Participant.

Pension Plans . The pension benefit payable from a prior employer's defined benefit pension plan is converted to a life annuity commencing at age 62, based upon the factors applicable to the prior employer's plan or if none are available, factors from the Qualified Plan.

Account Balance Plans . The balance from an account balance plan shall be converted to a lifetime benefit payable at age 62, using the following factors:

- With respect to account balance plan balances maintained by any prior employer where such plans are the prior employer's principal retirement plan, the account balance shall be measured as soon as is practicable after the date employment with such a prior employer is terminated.
- An interest rate equal to the average 30-year Treasury rate for the month preceding the measurement date.
- Mortality based upon the table prescribed by the IRS to calculate lump sum distributions from qualified pension plans.

Other Arrangements . Other arrangements will be converted to a lifetime benefit commencing at age 62 using procedures and assumptions which are consistent with the procedures and assumptions outlined above.

1.18 " ***Qualified Plan*** " shall mean the Barnes Group Inc. Salaried Retirement Income Plan, a pension plan sponsored by the Company which satisfies the requirements for qualification under Section 401(a) of the Code.

1.19 " ***Qualified Plan Benefit*** " shall mean the annual amount of pension benefit under the Qualified Plan payable immediately as a single life annuity upon the Participant's actual retirement date (Normal Retirement Date, Early Retirement Date, or Deferred Retirement Date, whichever is applicable).

1.20 " ***Social Security Benefit*** " shall mean the annual Social Security benefit, which reflects any reduction for commencement prior to a Participant's Social Security Retirement Age or any delayed retirement credit for commencement after his Social Security Retirement Age, as determined under the Social Security Act in

effect on the January 1 preceding the date benefits commence, and based upon the following assumptions:

(a) the Participant had no earnings during the calendar year which includes the date his employment with the Company terminates, or in any subsequent calendar year;

(b) the Participant's earnings in each prior year are equal to the maximum amount of wages subject to old age survivor and disability insurance tax under the Federal Insurance Contributions Act;

(c) benefits commence on the Participant's actual retirement date if such retirement date occurs on or after the Participant's 62nd birthday; and

(d) in the event the Participant's actual retirement is prior to age 62, his Social Security Benefit shall equal the Social Security Benefit otherwise payable at age 62 multiplied by the appropriate factor from the following table, based on the age when benefits commence (factors for ages not shown shall be interpolated):

SECTION 2

PURPOSE OF PLAN

2.1 ***Purpose*** . The Plan is designed to provide supplemental retirement benefits to selected executives of the Company. Such benefits shall be payable out of the general assets of the Company.

SECTION 3

NORMAL AND DEFERRED RETIREMENT BENEFITS

3.1 ***Benefit Upon Normal Retirement*** . Upon reaching Normal Retirement Date, a Participant may retire from the employ of the Company and shall be entitled to receive a lifetime monthly "Normal Retirement Benefit" (also referred to as the Accrued Benefit) commencing on his Normal Retirement Date. The Participant's monthly Normal Retirement Benefit shall be equal to one-twelfth of the excess of (a) over the sum of (b), (c) and (d), where:

(a) equals 55% of his Final Average Compensation multiplied by the ratio (not to exceed 1.0) of his Credited Service to fifteen;

(b) equals his Qualified Plan Benefit; and

(c) equals his Social Security Benefit; and

(d) equals his Prior Employer Benefit.

3.2 ***Benefit Upon Deferred Retirement*** . Upon retiring on a Deferred Retirement Date, a Participant shall be entitled to receive a benefit commencing on the first day of the month coincident with or next following the Participant's Deferred Retirement Date and continuing monthly for the lifetime of the Participant. The amount of such benefit shall be equal to the amount otherwise payable under Section 3.1 based on the Participant's Final Average Compensation, Credited Service, Qualified Plan Benefit, Social Security Benefit and Prior Employer Benefit determined as of the Participant's Deferred Retirement Date.

SECTION 4

EARLY RETIREMENT BENEFITS

4.1 ***Benefit Upon Early Retirement*** . If a Participant retires on or after his Early Retirement Date, but prior to his Normal Retirement Date, and any of conditions (a), (b) or (c) immediately below apply, he shall be entitled to a lifetime monthly "Early Retirement Benefit" as described in Section 4.2 below.

(a) His retirement was requested by the President and Chief Executive Officer of the Company,

(b) His retirement was requested by the Board, or

(c) His retirement has the approval of the Board.

4.2 ***Amount of Early Retirement Benefit*** . The amount of the Participant's Early Retirement Benefit shall be determined as one-twelfth of the excess of (a) over the sum of (b), (c) and (d) below, where:

(a) equals the product of (i), (ii), and (iii) below

(i) equals 55% of his Final Average Compensation,

(ii) equals the ratio (not to exceed 1.0) of his Credited Service to the greater of

(a) 15, or

(b) the Credited Service the Participant would have completed had Credited Service continued to age 62, and

(iii) equals the appropriate factor from the following table, based on the age when benefits commence (factors for ages not shown shall be interpolated):

(b) equals his Qualified Plan Benefit as of such date,

(c) equals his Social Security Benefit, and

(d) equals his Prior Employer Benefit, as adjusted by multiplying by the factors in Section 4.2(a)(iii), above.

4.3 ***Commencement Date*** . The Participant's Early Retirement Benefit shall commence on the first day of the month coincident with or next following the Participant's Early Retirement Date.

SECTION 5 DEATH BENEFITS

5.1 ***Death of Participant Prior to Commencement of Benefits*** . If a Participant dies on or after attaining age 55 and completing 5 years of Credited Service, but prior to the date his benefits under this Plan commence, his Surviving Spouse shall be eligible to receive a monthly lifetime benefit commencing on the first day of the month following the Participant's death. The benefit payable to his Surviving Spouse shall be equal to the amount which would have been payable to the Surviving Spouse if the Participant had:

(a) terminated employment on the date of death;

(b) elected to receive payments in the form of a joint and 50% contingent annuity with his Surviving Spouse as Contingent Annuitant; and

(c) died on the next day.

5.2 ***Death of Participant After Commencement of Benefits*** . If a Participant dies after the commencement of his benefits under this Plan, no death benefit will be payable hereunder except as otherwise provided under the form of annuity payment in effect on the date of death.

SECTION 6 DISABILITY

6.1 ***Disability Defined*** . For purposes of this Plan, a Participant shall be deemed to be disabled if he is eligible for and receiving Social Security disability benefits.

6.2 ***Disability Benefits*** . No benefits shall be payable hereunder solely on account of disability. However, if a Participant is deemed to be disabled under Section 6.1, he shall continue to accrue Credited Service until the earliest of the following events:

(a) the Participant attains his Normal Retirement Date;

(b) the Participant elects to retire on an Early Retirement Date;

(c) the Participant dies (however, no benefits are payable under the plan on account of death prior to age 55 and completion of 5 years of Credited Service) and

(d) the Participant ceases to be disabled.

The Participant's Compensation during the period of disability shall, for purposes of this Plan, be deemed to be equal to the Participant's Compensation for the calendar year preceding the date on which such disability began.

SECTION 7

NORMAL AND OPTIONAL FORMS OF PAYMENT

7.1 ***Normal Form of Payment*** . The normal form of payment under this Plan for an unmarried Participant is a single life annuity: a benefit payable monthly for the lifetime of the Participant, the first payment to be due on the date specified in Section 3, 4, or 5 hereof, and the last payment to be due on the first day of the calendar month in which death occurs.

The normal form of payment under this Plan for a married Participant is a 50% joint and contingent annuity: a benefit payable monthly for the lifetime of the Participant with a lifetime benefit equal to 50% of such benefit payable monthly to the spouse following the death of the Participant.

7.2 ***Optional Forms of Payment*** . In lieu of the normal form of payment, a Participant may elect to receive his benefit in the form of:

(a)a Single Life Annuity, which is a benefit payable monthly for the lifetime of the Participant with no benefits payable after his death;

(b) a Joint and Contingent Annuity, which is a benefit payable monthly for the lifetime of the Participant with a benefit equal to 25%, 33 1/3%, 50%, 66 2/3%, 75%, or 100% (as selected by the Participant) of such benefit payable monthly to the Contingent Annuitant for the

lifetime of the Contingent Annuitant; or

(c) a Ten Year Certain and Continuous Annuity, which is a benefit payable monthly for the lifetime of the Participant and, in the event of the Participant's death prior to receiving 120 monthly payments, payable monthly to a named Beneficiary until the Participant and Beneficiary together have received 120 monthly payments. If both the Participant and the Beneficiary die before 120 payments have been made, payments shall be made to the Participant's estate until a total of 120 monthly payments have been paid.

The Participant's benefits shall be paid in an optional form if the Participant makes an irrevocable election at least twelve months prior to the time benefits under this Plan commence. In the event that a Participant elects a Joint and Contingent Annuity and the Contingent Annuitant designated by the Participant dies prior to the time benefits commence, the election of the optional form of payment shall be disregarded. In the event that a Participant elects a Ten Year Certain and Continuous Annuity and the Beneficiary designated by the Participant

dies prior to the time benefits commence, the Participant shall designate a new Beneficiary. Elections of optional forms of payment shall be filed by the Participant with the Benefits Committee or its designee on a form approved by the Benefits Committee.

7.3 ***Actuarial Equivalent*** . The amount of benefit payable under this Plan shall be the actuarial equivalent of the single life annuity. Actuarial equivalence shall be determined using the factors specified in the Qualified Plan.

7.4 ***Designation of Contingent Annuitant*** . Except as provided below, the Participant may designate a Contingent Annuitant or Beneficiary or change any prior designation by giving written notice to the Benefits Committee at any time prior to the date benefits hereunder commence.

Exception: The Participant may not change the designation of a Contingent Annuitant at any time that is within twelve months prior to the date that benefits hereunder commence. No such restriction applies to the right of a Participant to change the designation of a Beneficiary under subparagraph 7.2(c). above.

SECTION 8 PLAN ASSETS

8.1 ***Company Sole Owner and No Trust Created*** . Title to and beneficial ownership of any assets which the Company may designate to pay benefits under this Plan shall at all times remain in the Company, and neither the Participants, Beneficiaries, nor Contingent Annuitants shall have any property interest whatsoever in any such assets of the Company. Nothing contained in this Plan, and no action taken pursuant to any provision hereunder, shall create or be construed to create a trust of any kind, or a fiduciary relationship between the Company and the Participants, Beneficiaries, Contingent Annuitants or any other person. Any assets which may be invested to fund benefits provided hereunder shall continue for all purposes to be a part of the general funds of the Company, and no person other than the Company shall by virtue of the provisions of this Plan have any interest in such funds. To the extent that any person acquires a right to receive payments from the Company under this Plan, such right shall be no greater than the rights of any unsecured general creditor of the Company.

SECTION 9 ADMINISTRATION

9.1 ***Administration*** . The Committee shall have full power and authority to interpret and construe the terms of this Plan, and the Committee's interpretations and construction thereof, and actions thereunder, or the amount or recipient of the benefits to be made therefrom shall be binding and conclusive on all persons for all purposes. No agent or representative of the Board shall be liable to any person for any action taken or omitted in connection with the interpretation and administration of this Plan unless attributable to his own willful misconduct or lack of good faith.

9.2 ***Expenses of Administration*** . All expenses incurred in connection with the execution of this Plan and in carrying out the provisions hereof shall be paid by the Company.

9.3 ***Information from Participant*** . Each Participant shall furnish to the Company such information as the Company may reasonably request for purposes of the proper administration of the provisions of this Plan.

9.4 ***No Employment Rights*** . Nothing contained in the Plan shall be construed as a contract of employment between the Company and a Participant, or as a right of any Participant to be continued in the employment of the Company, or as a limitation of the right of the Company to discharge any of its Participants, with or without cause. Any benefit payable under this Plan shall not be deemed salary, earnings, or other compensation to the Participant for the purpose of computing benefits to which he may be entitled under any qualified retirement plan or other arrangement of the Company for the benefit of its employees.

9.5 ***Restrictions on Alienation and Assignment.*** Neither a Participant nor any Beneficiary or Contingent Annuitant shall have the right to assign, transfer, hypothecate, encumber, commute or anticipate any interest in any payments hereunder, and such payments shall not in any way be subject to any legal process to levy upon or attach the sum for payment of any such claim against the Participant or any Beneficiary or Contingent Annuitant, provided, however, that nothing contained herein shall preclude a Participant from designating a Beneficiary or Contingent Annuitant to receive benefits hereunder in the event of the Participant's death.

9.6 ***Facility of Payment*** . If the Company shall find, upon receipt of medical evidence or legal representations satisfactory to the Committee, that any Participant to whom a benefit is payable is unable to care for such person's affairs because of

illness or accident, any payment due hereunder (unless a prior claim therefor shall have been made by a duly appointed guardian, conservator or other legal representative) may be paid to such Participant's spouse, child, parent or brother or sister, or to any person or persons determined by the Company to have incurred expense for such Participant. Any payment shall be a complete discharge of all liability hereunder.

9.7 ***Failure to Claim Amounts Payable*** . In the event that any amount shall become payable hereunder to a Participant or, upon a Participant's death, to the Beneficiary, Contingent Annuitant, or representative of the Participant's estate, and if after written notice from the Company mailed to such person's last known address as shown in the Company's records and after diligent effort the Company is unable to locate such person, the Company shall apply to a court of competent jurisdiction for direction as to the distribution of such amount.

9.8 ***Amendment and Termination*** . The Board reserves the right to amend and/or terminate the Plan at any time for whatever reasons it may deem appropriate, except that no such amendment or termination shall adversely affect the benefits payable to any person who has begun to receive benefits hereunder.

9.9 ***Gender and Number*** . All the words and terms used herein, regardless of the number and gender in which they shall be used, shall be deemed to include any other number, singular and plural, and any other gender, masculine and feminine, as the context may require.

9.10 ***Law Applicable*** . This Plan shall be governed by the laws of the State of Connecticut.

BARNES GROUP INC.

SUPPLEMENTAL SENIOR OFFICER RETIREMENT PLAN

as amended and restated effective January 1, 2009 PREAMBLE

Barnes Group Inc. adopted the Supplemental Senior Officer Retirement Plan (the "SSORP") effective April 3, 1996 and amended it effective December 31, 2007 and further amended it effective May 30, 2008, and effective January 1, 2009.

To the extent that, prior to December 31, 2007, any benefits under the SSORP as modified or supplemented (if at all) by any written individual agreement with a participant were "grandfathered" from Section 409A of the Internal Revenue Code (i.e., were compensation to which Section 409A of the Code does not apply, according to Treasury Regulation section 1.409A-6 or any other applicable Treasury Department guidance), such benefits shall be determined in accordance with, and be governed exclusively by, the provisions of the SSORP as in effect before December 31, 2007 and such individual agreement (if applicable).

To the extent that any benefits accrued under the SSORP before December 31, 2007 were not "grandfathered" from Section 409A of the Internal Revenue Code prior to December 31, 2007, and to the extent that any benefits are accrued under the SSORP on and after that date, then effective January 1, 2009, such benefits shall be determined in accordance with, and be governed by, the provisions of the SSORP as amended effective January 1, 2009, which are set forth below.

Notwithstanding the preceding sentence, the provisions of this Plan document (i.e., as amended effective January 1, 2009) applicable to the computation of benefits, to the commencement date of such benefits, to the time and form of payment, and to the selection of an optional form and a contingent annuitant or beneficiary, as well as any other provisions of this Plan document that are impossible or impracticable to apply to benefits already in pay status, shall not apply to benefits in pay status prior to January 1, 2009, to the extent such provisions are not required to apply pursuant to guidance prescribed by the Treasury Department under Section 409A of the Internal Revenue Code (including, but not limited, to, section XII.F of the preamble to the final regulations under such Section 409A and section 3.02 of IRS Notice 2007-86); rather, the applicable terms

of the Plan in effect prior to January 1, 2009, as modified or supplemented (if at all) by any written individual agreement with a participant in accordance with Section 409A of the Internal Revenue Code and Treasury Department guidance thereunder, construed and supplemented as necessary in accordance with applicable provisions of Section 409A of the Internal Revenue Code and Treasury Department guidance thereunder, shall apply to such benefits. To the extent permissible under applicable provisions of Section 409A of the Internal Revenue Code and Treasury Department guidance thereunder, this paragraph also shall apply to benefits not yet in pay status prior to January 1, 2009 but with respect to which all events necessary to receive the payment have occurred before January 1, 2009. For the avoidance of doubt, this paragraph shall not apply to any benefits to which the second sentence of this Preamble (relating to "grandfathered" benefits) applies.

SECTION 1 DEFINITIONS

The words and phrases defined hereinafter shall have the following meaning unless a different meaning is clearly required by the context of the Plan.

1.1 " ***Benefits Committee*** " shall mean the Benefits Committee appointed by the Board or its successor.

1.2 " ***Board*** " shall mean the Board of Directors of Barnes Group Inc., or its successor.

1.3 " ***Code*** " shall mean the Internal Revenue Code of 1986, as amended, or as it may be amended from time to time.

1.4 " ***Committee*** " shall mean the Compensation and Management Development Committee of the Board or its successor.

1.5 " ***Company*** " shall mean Barnes Group Inc. and each subsidiary and affiliated corporation that has adopted the Plan for the benefit of one or more employees.

1.6 " ***Compensation*** " with respect to any period in which the Participant earns Credited Service, shall mean the sum of (a) the Participant's "Compensation", as defined by the Qualified Plan, for such period, except that any such "Compensation" that is attributable to any period after a Participant's Separation from Service on or after May 30, 2008 shall be excluded, and (b) bonuses paid pursuant to the Management

Incentive Compensation Plan and the Performance-Linked Bonus Plan for Selected Executive Officers, or any successor plans, in all cases subject to any special rules on Compensation set forth in other provisions of this Plan. A bonus described herein shall be attributed to months of the year in which the bonus was earned, by prorating the bonus over the number of months worked by the Participant in that calendar year. In determining the benefits provided under this Plan, the limits of Code Section 401(a)(17) shall not apply.

1.7 " ***Credited Service*** " shall mean "Credited Service" as defined by the Qualified Plan, excluding any such "Credited Service" that is attributable to any period after a Separation from Service on or after May 30, 2008, in all cases subject to any special rules on Credited Service set forth in other provisions of this Plan. Notwithstanding the foregoing, the determination of a Participant's Credited Service also shall take into account the provisions of any applicable written employment or other individual agreement between the Company and that

Participant, including, but not limited to, any distinctions under such an agreement between credit for purposes of eligibility to receive a benefit and credit

for purposes of computation of a benefit, provided that no credit shall be provided pursuant to such an agreement for any period after a Separation from Service on or after May 30, 2008.

1.8 " ***Early Retirement Date*** " shall mean the date on which a Participant has a Separation from Service (other than by reason of death) that is (a) before the date the Participant reaches age 62 and completes 10 years of Credited Service, and (b) on or after the date the Participant has attained age 55 and completed 5 years of Credited Service.

1.9 " ***Effective Date*** " shall be January 1, 1996.

1.10 " ***Final Average Compensation*** " shall mean the product of (a) and (b), where (a) equals the amount determined when the Participant's highest 60 months of Compensation, whether or not consecutive, during his last 120 months of employment (or all months of employment, if fewer than 120) are averaged, and (b) equals 12.

1.11 ***"Group I Participant"*** means an individual designated as such in Appendix A.

1.12 ***"Group II Participant"*** means an individual designated as such in Appendix A.

1.13 " ***Normal Retirement Date*** " shall mean the date on which a Participant has a Separation from Service (other than by reason of death) that is on or after the date the Participant has attained age 62 and completed 10 years of Credited Service.

1.14 " ***Participant*** " shall mean a Group I Participant or a Group II Participant.

1.15 " ***Plan*** " shall mean the Barnes Group Inc. Supplemental Senior Officer Retirement Plan, as amended and set forth herein or in any amendment hereto.

1.16 " ***Prior Employer Benefit*** " shall have the meaning set forth in Section 3.

1.17 " ***Qualified Plan*** " shall mean the Barnes Group Inc. Salaried Retirement Income Plan as amended and in effect from time to time, a pension plan which is intended to satisfy the requirements for qualification under Section 401(a) of the Code.

1.18 " ***Qualified Plan Benefit*** " shall have the meaning set forth in Section 3.

1.19 " ***Separation from Service*** " shall mean a "separation from service" from the Company and all corporations and other trades or businesses aggregated with the Company, as determined under rules set forth in Treasury Regulation section

1.409A-1(h), as in effect from time to time, or a successor thereto. If there is a question as to whether a Participant's employment has been terminated or his employment relationship remains intact on account of the types of absences described in (a), (b), and (c) below, the following rules (to be interpreted consistent with Treasury Regulation section 1.409A-1(h)) shall apply:

(a) The employment relationship shall be treated as continuing intact while the Participant is on military leave, sick leave, or other bona fide leave of absence if the period of such leave does not exceed six months, or if longer, so long as the Participant retains a right to reemployment with the Company under an applicable statute or by contract. If the period of leave exceeds six months and the Participant does not retain a right to reemployment under an applicable statute or by contract, the employment relationship is deemed to terminate on the first date immediately following such six-month period.

(b) For purposes of this Section 1.19, a leave of absence constitutes a "bona fide" leave of absence only if there is a reasonable expectation that the Participant will return to perform services for the Company.

(c) Notwithstanding the foregoing, where (i) a leave of absence is due to any medically determinable physical or mental impairment that can be expected to last for a continuous period of not less than six months, and (ii) such impairment causes the Participant to be unable to perform the duties of his position of employment or any substantially similar position of employment, a 29-month period of absence shall be substituted for the six-month period described in paragraph (a) hereof, regardless of whether the Participant retains a contractual right to reemployment, unless the employment relationship is otherwise terminated by the Company or the Participant.

The foregoing provisions, including but not limited to paragraph (c) hereof, shall apply to determine whether there has been a termination of employment and, therefore, a Separation from Service, and shall have no effect on whether a Participant incurs a Disability within the meaning of Section 6 hereof and thereby becomes subject to the provisions of Section 6.

1.20 " ***Social Security Benefit*** " shall have the meaning set forth in Section 3.

1.21 ***"Specified Employee"*** shall mean a "Specified Employee" within the meaning of Treasury Regulation section 1.409A-1(i) as in effect from time to time, as determined in accordance with Section 7 below.

1.22 ***"Spouse"*** shall mean the individual to whom the Participant is legally married by civil or religious ceremony under the laws of the state in which the Participant is legally domiciled on the date the determination of whether there is a Spouse is being made. After a Participant's death, his "Spouse" shall be the individual, if any, who met these criteria as of the date of the Participant's death.

SECTION 2 PURPOSE OF PLAN

2.1 ***Purpose*** . The Plan is designed to provide supplemental retirement benefits to selected executives of the Company. Such benefits shall be payable out of the general assets of the Company. Notwithstanding the foregoing, in the discretion of the Committee, the Company may enter into one or more grantor trusts (sometimes known as "rabbi trusts") for the purpose of financing part or all of its obligations under the Plan.

SECTION 3

RETIREMENT BENEFITS FOR GROUP I PARTICIPANTS

3.1 ***Retirement Benefit Conditions.*** Subject to Section 8.8, a Group I Participant shall be entitled to a benefit under the Plan if his Separation from Service occurs on a Normal Retirement Date. A Group I Participant also shall be entitled to a benefit under the Plan if (a) his Separation from Service occurs on an Early Retirement Date, and (b) his retirement was either requested by the President and Chief Executive Officer of the Company and approved by the Committee or was requested and approved by the Committee; provided, however, that the provisions of (b) hereof shall not apply to a Participant with at least 10 years of Credited Service. A Group I Participant who has a Separation from Service under conditions other than those described above (disregarding for this purpose death and any cessation of work on account of Disability, as defined in Section 6) shall not be entitled to any benefits under the Plan.

3.2 ***Benefit for Normal Retirement.*** A Group I Participant who is entitled to a benefit on account of a Normal Retirement Date pursuant to Section 3.1 and who has not incurred a Disability shall be entitled to receive a lifetime monthly "Normal Retirement Benefit" payable as of the first day of the month following the Participant's Normal Retirement Date (the " Benefit Commencement Date ") which benefit shall actually commence within the 90-day period beginning on the Participant's Benefit Commencement Date (but subject to Section 7.1) and continue on the first day of each month after actual commencement (with regard to Section 7.1) during the lifetime of the Group I Participant. The Participant's monthly Normal Retirement Benefit shall be equal to one-twelfth of the amount determined under the following steps.

Step 1 . Multiply 55% of the Participant's Final Average Compensation by the ratio (not to exceed 1.0) of his Credited Service to fifteen (15). Step 2 .

Subtract the Participant's Social Security Benefit.

Step 3 . Subtract the Participant's Prior Employer Benefit. Step 4 . Subtract the Participant's Qualified Plan Benefit.

3.3 ***Benefit for Early Retirement.*** A Group I Participant who is entitled to a benefit on account of an Early Retirement Date pursuant to Section 3.1 and who has not incurred a Disability shall be entitled to receive a lifetime "Early Retirement Benefit" payable as of the first day of the month following the Participant's Early

Retirement Date (the " Benefit Commencement Date "), which benefit shall actually commence within the 90-day period beginning on the Participant's Benefit Commencement Date (but subject to Section 7.1) and continue on the first day of each month after actual commencement (with regard to Section 7.1) during the lifetime of the Group I Participant. Computation of the benefit shall be the same as for the Normal Retirement Benefit under Section 3.2, except as follows:

(a) In Step 1, 55% of the Participant's Final Average Compensation shall be multiplied by the ratio (not to exceed 1.0) of the Group I Participant's Credited Service to the greater of (i) fifteen (15), or (ii) the Credited Service the Participant would have completed had Credited Service continued to age 62.

(b) Between Steps 3 and 4, insert a Step 3A under which the amount obtained at the end of Step 3 is multiplied by the appropriate factor from the following table, based on the Participant's age as of his Benefit Commencement Date (without regard to Section 7.1), with factors for ages not shown interpolated:

3.4 ***Definition of Terms.*** For purposes of determining the benefits payable to Group I Participants pursuant to this Section 3, the following terms shall have the following meanings:

(a) ***"Qualified Plan Benefit"*** shall mean the annual amount of pension benefit under the Qualified Plan that is or would be payable immediately as a single life annuity as of the Participant's Benefit Commencement Date (without regard to Section 7.1), using the Qualified Plan's actuarial assumptions or factors relating to forms of benefit and early commencement, as the case may be. Notwithstanding the foregoing, the Qualified Plan Benefit shall be computed by excluding any portion of the benefit under the Qualified Plan attributable to (i) any period after the Participant's Separation from Service on or after May 30, 2008, and (ii) any compensation in any period after the Participant's Separation from Service on or after May 30, 2008. If amendments or other modifications that have been made to the Qualified Plan would, but for this sentence, result in an impermissible acceleration or deferral of the Participant's benefits under this Plan under Section 409A of the Code and Treasury Regulations thereunder, such Qualified Plan amendment or other modification shall be disregarded in computing the benefits due the Participant under this Plan.

(b) ***"Social Security Benefit"*** shall mean a Participant's estimated annual Social Security Benefit, which reflects any reduction for commencement prior to a Participant's Social Security Retirement Age or any delayed retirement credit for commencement after his Social Security Retirement Age, as determined under the Social Security Act in effect on the January 1 preceding the Participant's Benefit Commencement Date (without regard to Section 7.1), and based upon the following assumptions:

(i) The Participant had no earnings during the calendar year which includes the date his employment with the Company terminates or, if earlier, the date of his Separation from Service on or after May 30, 2008, or in any subsequent calendar year.

(ii) The Participant's earnings in each prior year are equal to the maximum amount of wages subject to old age survivor and disability insurance tax under the Federal Insurance Contributions Act.

(iii) Benefits commence on the Participant's Benefit Commencement Date if the Participant's Benefit Commencement Date occurs on or after the Participant's 62 nd birthday.

(iv) In the event the Participant's Benefit Commencement Date is prior to age 62, his Social Security Benefit shall equal the Social Security Benefit otherwise payable at age 62.

(c) ***"Prior Employer Benefit"*** shall mean the annual benefit, if any, to which a Participant is entitled from a Code Section 401(a) tax- qualified defined benefit plan (including, for this purpose, any cash balance or other hybrid plan treated as a defined benefit plan under the Code's tax-qualification rules) maintained by the employer that, immediately prior to the Participant's employment with the Company, employed the Participant, computed in the form of a single life annuity commencing upon the Participant's attainment of age 62 (or the actuarial equivalent thereof, determined by the Company's actuary pursuant to actuarial assumptions or factors used under the Qualified Plan, if a Participant's Separation from Service occurs after age 62).

3.5 ***Normal Form of Payment.*** The normal form of payment under this Plan for a Group I Participant is a single life annuity: a benefit payable monthly for the lifetime of the Participant, with the first payment to be due on the Benefit Commencement Date specified in Section 3.2 or 3.3, as the case may be, and the last payment to be due on the first day of the calendar month in which death occurs. Consistent with Section 7.1, any payment due for a month prior to the month in which benefits actually commence shall be paid when benefits actually commence, with no adjustment for interest.

3.6 ***Optional Forms of Payment.*** In lieu of the normal form of payment, a Participant may elect to receive his benefit in one of the following optional forms, subject to the provisions of this Section 3:

(a) Joint and Contingent Annuity. In lieu of the normal form of payment, a Participant may elect to receive his benefit in a joint and contingent annuity form, which is a benefit payable monthly for the lifetime of the Participant with a benefit equal to 25%, 50%, 75%, or

100% (as selected by the Participant) of such benefit payable monthly to the Contingent Annuitant, commencing after the death of the Participant, for the lifetime of the Contingent Annuitant.

(b) Ten Year Certain and Continuous Annuity. In lieu of the normal form of payment, a Participant may elect to receive his benefit as a Ten Year Certain and Continuous Annuity, which is a benefit payable monthly for the lifetime of the Participant and, in the event of the Participant's death prior to receiving 120 monthly payments, payable monthly to a named Beneficiary until the Participant and Beneficiary together have received 120 monthly payments. If both the Participant and the Beneficiary die before 120 payments have been made, payments shall be made to the Participant's estate until a total of 120 monthly payments have been made.

A Participant's election of an optional form generally shall be effective only if made by the close of the 30-day period beginning on the Participant's Benefit Commencement Date; provided, however, that the Committee may prescribe another period for electing an optional form. In the event that a Participant elects a Joint and Contingent Annuity and the Contingent Annuitant designated by the Participant dies prior to the time benefits actually commence (with regard to Section 7.1), the election of the optional form of payment shall be disregarded. In the event that a Participant elects a Ten Year Certain and Continuous Annuity and the Beneficiary designated by the Participant dies prior to the time benefits actually commence (with regard to Section 7.1), the Participant shall designate a new Beneficiary. Notwithstanding the foregoing, in the event of the death of a Contingent Annuitant or Beneficiary under the circumstances described herein, the Committee may, in accordance with rules prescribed by it, permit the Participant to make another election of an optional form. Election of optional forms of payment shall be filed by the Participant with the Benefits Committee or its designee on a form approved by the Benefits Committee.

3.7 ***Actuarial Equivalent.*** Except to the extent otherwise specifically provided herein, the amount of any optional form of payment payable under this Section 3

shall be the actuarial equivalent of the single life annuity. Actuarial equivalence shall be determined using the factors specified in the Qualified Plan as of the date that an election of an optional form of payment is made. Notwithstanding the foregoing, the normal and optional forms of payment shall be actuarially equivalent within the standards set forth in Treasury Regulation section 1.409A-2(b), with the Company's actuary making any adjustments to the factors specified in the Qualified Plan or other adjustments as may be necessary to satisfy such standards.

3.8 ***Designation of Contingent Annuitant, Beneficiary.*** A Participant may designate a Contingent Annuitant or Beneficiary or change any prior designation by giving written notice to the Benefits Committee within the period described in Section 3.6; provided, however, that all designations of Contingent Annuitants or Beneficiaries are subject to the approval of the Benefits Committee. When necessary because, for example, no properly designated Beneficiary survives the Participant and a payment is due to a Beneficiary (under the Ten Year Certain and Continuous Annuity), the Benefits Committee shall apply default rules determined by the Benefits Committee, in its sole discretion, but generally following a priority list of living persons in the following order: Spouse, children, parents, brothers and sisters, estate. Although the rules of the Benefits Committee may permit a Participant to designate one or more alternative Beneficiaries (for example, an individual who shall become a Participant's Beneficiary in case the Participant's first choice of a

Beneficiary dies before benefits become payable), a Participant may not designate persons who shall jointly receive benefits as Beneficiaries (for example, the designation of two or more children to jointly receive benefits as Beneficiaries is prohibited). Subject to the approval of the Benefits Committee as provided above, a Participant may designate a trust as a Beneficiary.

3.9 ***Lump Sum Cashout.*** Notwithstanding the foregoing or any other provisions of the Plan, in the discretion of the Committee, a lump sum may be paid to a Group I Participant within 90 days of the Participant's Benefit Commencement Date (subject to Section 7.1) in satisfaction of his interest under the Plan if the value thereof as of the Participant's Benefit Commencement Date does not exceed the applicable dollar amount under Section 402(g)(1)(B) of the Code and the payment results in the termination and liquidation of the entirety of the Participant's interest under the Plan, including all agreements, methods, program, or other arrangements with respect to which deferrals of compensation are treated as having been deferred under a single nonqualified deferred compensation plan under Treasury Regulation section 1.409A-1(c)(2). The Committee shall document its decision to make a lump sum payment hereunder on or before the date of the payment.

SECTION 4

RETIREMENT BENEFITS FOR GROUP II PARTICIPANTS

4.1 ***Retirement Benefit Conditions.*** The conditions for a Group II Participant to receive a benefit under the Plan shall be the same as those for a Group I Participant, set forth in Section 3.1 hereof.

4.2 ***Benefit for Normal Retirement.*** A Group II Participant who has a Normal Retirement Date and has not incurred a Disability shall be entitled to receive a retirement benefit determined and payable as follows:

Step 1. Compute the benefit which the Participant would receive as a lifetime annuity as if Section 3.2 applies.

Step 2 . Multiply the amount determined for the Participant in Step 1 by a single life annuity factor based on the Participant's age at the

Participant's Benefit Commencement Date. The annuity factor shall be based on an interest rate equal to the discount rate and any other assumptions used by the Company to value pension liabilities under this Plan for the financial statements of the Company last disclosed before the computation hereunder is made (unless a remeasurement of the pension liabilities has taken place since that time, in which case the remeasurement assumptions shall be used).

Step 3 . Treat the lump sum amount determined in Step 2 as the opening balance in a hypothetical account to be used to pay five installments to the Participant. Hypothetical interest shall be credited to the account on the last day of each calendar month (through the calendar month that next precedes the last installment payment) by multiplying one-twelfth of the Wall Street Journal prime rate in effect on such day by the account balance as of the last day of the immediately preceding month.

Step 4 . Pay the installments referred to in Step 3 with the first installment paid within the 90-day period commencing on the Participant's Benefit Commencement Date (but subject to Section 7.1) and the last four installments paid on anniversaries of the Benefit Commencement Date for a total of five installment payments, each equal to the applicable percentage below multiplied by the Participant's hypothetical account as of the last day of the month before the month in which payment occurs (after crediting interest until such date):

4.3 ***Benefit for Early Retirement.*** A Group II Participant who is entitled to a benefit on account of an Early Retirement Date pursuant to Section 4.1 and who has not incurred a Disability shall be entitled to receive a benefit determined and payable by following the steps in Section 4.2, with the following modifications:

Step 1 . Compute the Participant's benefit under Section 3.2 assuming (a) the Participant began to receive his benefits at Separation from Service upon reaching age 62; (b) in Step 1 under Section 3.2, 55% of the Participant's Final Average Compensation is multiplied by the ratio (not to exceed 1.0) of the Participant's Credited Service to the greater of (i) fifteen (15) or (ii) the Credited Service the Participant would have completed had Credited Service continued to age 62; and (c) the amount thereby determined is multiplied by the factor in Section 3.3(b), based on the age of the Participant on his Benefit Commencement Date.

4.4 ***Lump Sum Cashout.*** Notwithstanding the foregoing or any other provisions of the Plan, in the discretion of the Committee, a lump sum may be paid to a Group II Participant within 90 days of the Participant's Benefit Commencement Date (subject to Section 7.1) in satisfaction of his interest under the Plan if the value thereof as of the Participant's Benefit Commencement Date does not exceed the applicable dollar amount under Section 402(g)(1)(B) of the Code and the payment results in the termination and liquidation of the entirety of the Participant's interest under the Plan, including all agreements, methods, program, or other arrangements with respect to which deferrals of compensation are treated as having been deferred under a single nonqualified deferred compensation plan under Treasury Regulation section 1.409A- 1(c)(2). The Committee shall document its decision to make a lump sum payment hereunder on or before the date of the payment.

SECTION 5 DEATH BENEFITS

5.1 ***Death of Group I Participant On or Prior to Close of Period for Electing an Optional Form*** . If a Participant dies on or after attaining age 55 and completing 5 years of Credited Service and on or prior to the date that an election of an optional form of payment must be made under Section 3 hereof, his Spouse shall be eligible to receive a monthly lifetime benefit commencing within the 90-day period beginning on the date of the Participant's death. The benefit payable to such Spouse shall be equal to the amount which would have been payable to the Participant's Spouse if:

(a) the Participant's date of death was instead his Early or Normal Retirement Date (with the applicable type of retirement date dependent on the Participant's age and years of Credited Service on his date of death);

(b) the Participant had elected to receive payments in the form of a joint and 50% contingent annuity with his Spouse as Contingent Annuitant; and

(c) the Participant died on the day next succeeding his assumed Early or Normal Retirement Date.

5.2 ***Death of Group I Participant After Close of Period for Electing an Optional Form*** . If a Participant dies after the date that an election of an optional form of payment must be made under Section 3 hereof, no death benefit will be payable hereunder except as otherwise provided under the form of annuity payment in effect on the date of death.

5.3 ***Death of Group II Participant Prior to Commencement of Benefits.*** If a Group II Participant dies on or after attaining age 55 and completing 5 years of Credited Service and prior to the date any benefits under this Plan have commenced, his Spouse shall receive five installments, with the first installment paid within the 90-day period beginning on the date of the Participant's death and subsequent installments paid on each anniversary of the first installment. The amount of each installment shall be equal to 50% of the installment the Participant would have received, if he had a Separation from Service on the date of his death.

5.4 ***Death of Group II Participant After Commencement of Benefits.*** If a Group II Participant dies after the date his benefits under the Plan have commenced , any remaining installments payable pursuant to Section 4 shall be paid to the Group II Participant's Beneficiary on the same dates such installments would have been payable to the Participant, had he not died.

5.5 ***Designation of Beneficiary.*** For purposes of Section 5.4, a Participant may designate a Beneficiary or change any prior designation by giving written notice to the Benefits Committee within such time periods, and according to such other rules, as the Benefits Committee shall prescribe, with all Beneficiary designations subject to the approval of the Benefits Committee and otherwise consistent with the Beneficiary provisions of Section 3.8 hereof.

SECTION 6 DISABILITY

6.1 ***Disability Defined*** . For purposes of this Plan, a Participant shall be deemed to have a Disability if the Social Security Administration determines he is disabled under the Social Security Act. A Participant shall be considered as incurring a Disability on the last day of the month in which the Participant first becomes eligible for and begins to receive Social Security disability benefits. The payment of any Disability Benefit described in this Section 6 is contingent on no Separation from Service before the day the Participant incurs a Disability and on the Participant being alive on the commencement date. If a Participant has a Disability that is followed by a Separation from Service, the provisions of this Section 6 shall take precedence over the provisions of Section 3 or Section 4, as the case may be.

6.2 ***Group I: General Rule.*** If a Group I Participant incurs a Disability, he shall start receiving a Disability Benefit within the 90-day period commencing on the day he incurs the Disability. The amount of the benefit shall be computed as if the Participant were receiving a benefit computed under Section 3, with continued credit for Credited Service and Compensation (regardless of any provisions to the contrary in the Qualified Plan and the definitions in this Plan) until the date the Participant incurs the Disability for purposes of Step 1 under Section 3.2, and treating the Participant's date of Disability as his Early or Normal Retirement Date (with the applicable type of retirement date depending on the Participant's age and years of Credited Service as of the date he incurs a Disability). In applying this rule, it shall be assumed that the Participant's rate of Compensation as of the date his disabling conditions began continued unchanged.

6.3 ***Group I: Alternative to Section 6.2.*** As an alternative to receiving a Disability Benefit pursuant to Section 6.2 and if permitted by Section 409A of the Internal Revenue Code and Treasury guidance thereunder, a Participant whose Disability precedes his attainment of age 62 and credit for at last 10 years of Credited Service may defer the commencement date of payment of a Disability Benefit from the date prescribed in Section 6.2 to a date within the 90-day period beginning on the first day the Participant attains age 62 and has been credited with 10 years of Credited Service (his " Normal Retirement Equivalent Date "). The amount of the benefit shall be computed as if the Participant were receiving a benefit computed under Section 3, with continued credit for Credited Service and Compensation (regardless of any provisions to the contrary in the Qualified Plan and the definitions in this Plan) until his Normal Retirement Equivalent Date for purposes of Step 1 under Section 3.2. In applying this rule, it shall be assumed that the Participant's rate of Compensation as of the date his disabling conditions began continued unchanged. An election hereunder cannot take effect until 12 months after the date on which it is made and must be made not less than 12 months before the date the Participant would receive his first annuity payment under Section 6.2.

6.4 ***Form of Disability Benefit under Sections 6.2 and 6.3.*** The forms of benefit in which Disability Benefits described in Sections 6.2 and 6.3 are provided

shall be the same as those for a Group I Participant who receives benefits on account of an Early Retirement Date or Normal Retirement Date pursuant to Section 3.

6.5 ***Group II: Disability Before Age 55 – General Rule.*** If a Group II Participant incurs a Disability before his attainment of age 55, he shall start receiving a Disability Benefit commencing on a date within the 90-day period beginning on the day the Participant attains age 55 (with this date considered the Participant's " Early Retirement Benefit Equivalent Date "). The amount of the benefit shall be computed as if the Participant were receiving an Early Retirement benefit computed under Section 4, but, for purposes of the Section 3.2, Step 1-type computation, with continued credit for Credited Service and Compensation (regardless of any provisions to the contrary in the Qualified Plan and the definitions in this Plan) until his Early Retirement Benefit Equivalent Date. In applying this rule, it shall be assumed that the Participant's rate of Compensation as of the date his disabling conditions began continued unchanged.

6.6 ***Group II: Disability On or After Age 55 – General Rule.*** If a Group II Participant incurs a Disability on or after his attainment of age 55, he shall start receiving a Disability Benefit within the 90-day period commencing on the day the Participant incurs the Disability. The amount of the benefit shall be computed as if the Participant were receiving a benefit computed under Section 4 but, for purposes of the Section 3.2, Step 1-type computation, continuing to credit Credited Service and Compensation (regardless of any provisions to the contrary in the Qualified Plan and the definitions in this Plan) until the date he incurs the Disability, and treating the Participant's date of Disability as his Early or Normal Retirement Date (with the applicable type of retirement date dependent on the Participant's age and years of Credited Service as of the date he incurs a Disability). In applying this rule, it shall be assumed that the Participant's rate of Compensation as of the date his disabling conditions began continued unchanged.

6.7 ***Group II: Alternative to Sections 6.5 and 6.6.*** As an alternative to receiving a Disability Benefit pursuant to Section 6.5 or Section 6.6 and if permitted by Section 409A of the Internal Revenue Code and Treasury guidance thereunder, a disabled Participant whose Disability precedes his attainment of age 62 and credit for at least 10 years of Credited Service may defer the commencement date of payment of a Disability Benefit (as well as the corresponding anniversaries of the commencement date) from the date prescribed in Section 6.5 or 6.6, as the

case may be, to a date within the 90-day period beginning on the first day the Participant attains age 62 and has been credited with at least 10 years of Credited Service (his "Normal Retirement Equivalent Date"). The amount of the benefit shall be computed as if the Participant were receiving a benefit computed under Section 4 but, for purposes of the Section 3.2, Step 1-type computation, continuing to credit Credited Service and Compensation (regardless of any provisions to the contrary in the Qualified Plan and the definitions in this Plan) until his Normal Retirement Equivalent Date. An election hereunder cannot take effect until 12 months after the date on which it is made and must be made not less than 12 months before the date the Participant would receive his first payment under Section 6.5 or 6.6, as the case may be.

6.8 ***Form of Disability Benefit under Sections 6.5 through 6.7.*** The forms of benefit in which Disability Benefits described in Sections 6.5 through 6.7 are provided shall be the same as those for a Group II Participant who receives benefits pursuant to Section 4.

6.9 ***Rights Contingent on Continuation of Disability.*** A Participant's right to a Disability Benefit under this Section 6 and to credit for Compensation and Credited Service, to the extent provided under this Section 6 and not under other provisions of this Plan, shall be contingent on the Participant remaining disabled, consistent with the Social Security determination originally made pursuant to Section 6.1.

SECTION 7 SECTION 409A PROVISIONS

7.1 Notwithstanding any provision of this Plan to the contrary, (a) no "distributions" (within the meaning of Treasury Regulation section 1.409A- 1(c)(3)(v)) of deferred compensation that is subject to Section 409A of the Code may be made pursuant to this Plan to a Specified Employee due to a Separation from Service before the date that is six months after the date of such Specified Employee's Separation from Service ; and
(b) any distribution that, but for the preceding clause (a), would be made before the date that is six months after the date of the Specified Employee's Separation from Service shall be paid on the first day of the seventh month following the date of his or her Separation from Service. For the avoidance of doubt, the preceding sentence shall apply to any amount (and only to any amount) to be paid pursuant to this Plan to which Code Section 409A(a)(2)(B)(i) (relating to Specified Employees) applies, and shall not apply to any amount or benefit to be paid or provided pursuant to this Plan if and to the extent that such amount or benefit is not subject to Section 409A of the Code for any reason, including, without limitation, Treasury Regulation section 1.409A-1(a)(5) (relating to welfare benefit plans), Treasury Regulation section 1.409A-1(b)(4) (relating to short-term deferrals), Treasury Regulation section 1.409A-1(b)(9) (relating to separation pay plans), or the "grandfather" rules incorporated in Treasury Regulation section 1.409A-6(a).

7.2 If at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, a person who participates in or has any legally binding right, contingent or otherwise, under this Plan (a " Plan Participant ") is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code section 416(i)(5)), then the Plan Participant shall be treated as a Specified Employee for purposes of Section 7.1 above for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board or the Committee at any time prescribes a different method of identifying service providers who will be subject to the six month delay required by Section 409A(a)(2)(B)(i) of the Code (the " Six Month Delay ") in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a " Different Identification Method ") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A

(a " Different Election "), in which case whether the Participant shall be treated as a Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board or Committee. By participating or continuing to participate in this Plan or accepting any legally binding right under this Plan, each Participant irrevocably

(a) consents to any such Different Identification Method that the Board or Committee may prescribe at any time and any such Different Election that the Board or Committee may make at any time for purposes of identifying the service providers who will be subject to the Six Month Delay with respect to payments under this Plan, and (b) agrees that the Participant's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (c) waives any right he or she may have to consent to the Different Identification Method or Different Election in question if for any reason the Participant's consent to such Different Identification Method or Different Election is not legally effective.

7.3 If any Participant or beneficiary has any right under this Plan to "a series of installment payments that is not a life annuity" (within the meaning of Treasury Regulation section 1.409A-2(b)(2)(iii)), then such right shall be treated as a right to a series of separate payments within the meaning of Treasury Regulation section 1.409A-2(b)(2)(iii).

7.4 Any compensation that may be paid or provided pursuant to this Plan is intended to qualify for an exclusion from Section 409A of the Code or to comply with Section 409A of the Code, so that none of such compensation will be includible in any Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code. This Plan shall be administered, interpreted and construed to carry out such intention, and any provision of this Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company and any other person or entity with any responsibility for the Plan (including, but not limited to, the Board) do not represent, warrant or guarantee that any compensation that may be paid or provided pursuant to this Plan will not be includible in a Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, nor do the Company and other persons and entities with any responsibility for the Plan make any other representation, warranty or guaranty to any Plan Participant as to the tax consequences of this Plan or of participation in this Plan. If, notwithstanding the foregoing, amounts are includible in a Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, the payment of benefits will be accelerated to the extent determined by the Committee and permitted by Treasury Regulation section 1.409A-3(j)(vii).

SECTION 8 ADMINISTRATION AND GENERAL PROVISIONS

8.1 ***Administration*** . The Committee shall have full power and authority to interpret and construe the terms of this Plan, and to administer it, and the Committee's interpretations and construction thereof, and actions thereunder, including, but not limited to determining the amount or recipient of any benefits to be made therefrom, shall be binding and conclusive on all persons for all purposes. The Board, the Committee, the Benefits Committee, their individual members, and such persons' agents and representatives of the Board shall not be liable to any person for any action taken or omitted in connection with the interpretation and administration of this Plan unless attributable to willful misconduct or lack of good faith.

8.2 ***Expenses of Administration*** . All expenses incurred in connection with the execution of this Plan and in carrying out the provisions hereof shall be paid by the Company.

8.3 ***Information from Participant*** . Each Participant shall furnish to the Company such information as the Company may reasonably request for purposes of the proper administration of the provisions of this Plan.

8.4 ***No Employment Rights*** . Nothing contained in the Plan shall be construed as a contract of employment between the Company and a Participant, or as a right of any Participant to be continued in the employment of the Company, or as a limitation of the right of the Company to discharge any of its Participants, with or without cause. Any benefit payable under this Plan shall not be deemed salary, earnings, or other compensation to the Participant for the purpose of computing benefits to which he may be entitled under any qualified retirement plan or other arrangement of the Company for the benefit of its employees.

8.5 ***Restrictions on Alienation and Assignment.*** Neither a Participant or Spouse nor any Beneficiary or Contingent Annuitant shall have the right to assign, transfer, hypothecate, encumber, commute or anticipate any interest in any payments hereunder, and such payments shall not in any way be subject to any legal process to levy upon or attach the sum for payment of any such claim against the Participant, Spouse, Beneficiary, or Contingent Annuitant, provided, however, that nothing contained herein shall preclude a Participant from designating, in accordance with Sections 3 and 4 and other terms of this Plan, a Beneficiary or Contingent Annuitant to receive benefits hereunder in the event of the Participant's death.

8.6 ***Facility of Payment*** . If the Committee shall find, upon receipt of medical evidence or legal representations satisfactory to the Committee, that any Participant or other person to whom a benefit is payable is unable to care for such person's affairs because of illness or accident, any payment due hereunder (unless a prior and valid claim therefor shall have been made by a duly appointed guardian, conservator or other legal

representative) may be paid to such person's spouse, child, parent or brother or sister, or to any person or persons determined by the Committee to have incurred expense for such Participant. Any payment shall be a complete discharge of all liability hereunder.

8.7 ***Failure to Claim Amounts Payable*** . In the event that any amount shall become payable hereunder to a person and, after written notice from the Company mailed to such person's last known address as shown in the Company's records and after diligent effort, the Company is unable to locate such person, the Company shall apply to a court of competent jurisdiction for direction as to the distribution of such amount.

8.8 ***Amendment and Termination*** . The Board reserves the right to amend and/or terminate the Plan at any time for whatever reasons it may deem appropriate (or for no reason), except that no such amendment or termination shall adversely affect the benefits payable to any person who has begun to receive benefits hereunder and no such amendment or termination may accelerate or defer the payment of compensation except as permitted by Section 409A of the Code.

8.9 ***Gender and Number*** . All the words and terms used herein, regardless of the number and gender in which they shall be used, shall be deemed to include any

other number, singular and plural, and any other gender, masculine and feminine, as the context may require.

8.10 ***Law Applicable*** . This Plan shall be governed by the laws of the State of Connecticut to the extent not superseded by federal law.

8.11 ***Delegation of Authority.*** The Board, the Committee, and the Benefits Committee may delegate the responsibilities allocated to them under the terms of this Plan to others, including, but not limited to, a Board delegation to the Committee or the Benefits Committee, a Committee or Benefits Committee delegation to one or more members, and a delegation by the Board or one of the committees to Company employees. As long as the delegation is lawful, neither an employee nor any other person shall have the right to raise any questions relating to such delegation of authority and responsibility for interpreting, construing, and administering the Plan.

8.12 ***Releases.*** Any provision of this Plan to the contrary notwithstanding, each payment to a person hereunder shall be contingent on the person having

executed and delivered to the Company, at such time or times in advance of the payment date as the Committee or its delegate may specify, any covenant agreement and release of claims that the Committee or its delegate may require, and on any such covenant and release of claims having become irrevocable by their terms in advance of the payment date. Without limiting the generality of the foregoing, the Committee or its delegate may require a covenant and release to be executed and delivered to the Company within a specified period of time following the Participant's Separation from Service, and another release to be executed and delivered to the Company within a specified period of time following another event or date as the Committee or its delegate may specify. Amounts not paid hereunder due to a failure to execute any covenant or release required by the Committee shall be treated as forfeited.

APPENDIX A

Group I Participants: Any individual covered by the SSORP immediately prior to January 1, 2009 (including, but not limited to, an individual in pay status), as determined by the Committee, provided the individual is at least age 55 and has been credited with at least 5 years of Credited Service as of such date

Group II Participants: Any individual covered by the SSORP immediately prior to January 1, 2009, as determined by the Committee, other than an individual who is a Group I Participant

For the avoidance of doubt, however, an individual is not a Group I or Group II Participant if all of his benefits are "grandfathered" from Section 409A of the Code, as described in the Preamble.

BARNES GROUP INC. SUPPLEMENTAL EXECUTIVE RETIREMENT PLAN

as amended and restated effective April 1, 2012 PREAMBLE

This Supplemental Executive Retirement Plan (the "Plan") was amended by the Board of Directors of the Company on May 16, 1997 and December 31, 2007. It was further amended effective as of May 30, 2008, January 1, 2009, February 8, 2010 and April 1, 2012.

The amendments to the Plan that were adopted on December 31, 2007 were not intended to enhance (within the meaning of Treasury Regulation section 1.409A-6(a)(4)) any benefit or right existing under the Plan on or before that date, and the Plan as amended on December 31, 2007 was to be administered, interpreted and construed accordingly. To the extent that prior to May 30, 2008 any benefits under the Plan as modified or supplemented (if at all) by any written individual agreement with a participant were "grandfathered" from Section 409A of the Code (i.e., were compensation to which Section 409A of the Code does not apply, according to Treasury Regulation section 1.409A-6 or any other applicable Treasury Department guidance), such benefits shall be determined in accordance with, and be governed exclusively by, the provisions of the Plan as in effect before May 30, 2008 and such individual agreement, if applicable. To the extent that any benefits under the Plan were not "grandfathered" from Section 409A of the Code prior to May 30, 2008, and to the extent that any benefits are accrued under the Plan on and after that date, then effective January 1, 2009, such benefits shall be determined in accordance with, and be governed by, the provisions of the Plan as amended and in effect from time to time on and after January 1, 2009.

Notwithstanding the preceding sentence, the provisions of the Plan as amended and in effect from time to time on and after January 1, 2009 applicable to the computation of benefits, to the commencement date of such benefits, and to the time and form of payment, as well as any other provisions of the Plan as so amended that are impossible or impracticable to apply to benefits already in pay status, shall not apply to benefits in pay status prior to January 1, 2009, to the extent such provisions are not required to apply pursuant to guidance prescribed by the Treasury Department under Section 409A of the Internal Revenue Code (including, but not limited to, section XII.F of the preamble to the final regulations under such Section 409A and section 3.02 of IRS Notice 2007-86); rather, the applicable terms of the Plan in effect prior to January 1, 2009, as modified or supplemented (if at all) by any written individual agreement with a participant in accordance with Section 409A of the Internal Revenue Code and Treasury Department

guidance thereunder, construed and supplemented as necessary in accordance with the applicable provisions of Section 409A of the Internal Revenue Code and Treasury Department guidance thereunder, shall apply to such benefits. To the extent permissible under applicable provisions of Section 409A of the Internal Revenue Code and Treasury Department guidance thereunder, this paragraph also shall apply to benefits not yet in pay status prior to January 1, 2009 but with respect to which all events necessary to receive the payment have occurred before January 1, 2009. For the avoidance of doubt, this paragraph shall not apply to any benefits to which the fourth sentence of this Preamble (relating to "grandfathered" benefits) applies.

This Plan was amended and restated effective April 1, 2012, to terminate eligibility for benefits hereunder except with respect to participants who were receiving benefits hereunder as of April 1, 2012 or who were vested in their benefits hereunder as of April 1, 2012.

SECTION 1 DEFINITIONS

1.1 "Benefits Committee" shall mean the Benefits Committee appointed by the Board or its successor.

1.2 "Board" shall mean the Board of Directors of Barnes Group Inc., or its successor.

1.3 "Code" shall mean the Internal Revenue Code of 1986, as amended, as or it may be amended from time to time.

1.4 "Committee" shall mean the Compensation and Management Development Committee of the Board or its successor.

1.5 "Company" shall mean Barnes Group Inc. and each subsidiary and affiliated corporation that has adopted the Plan for the benefit of one or more employees.

1.6 "Participant" shall have the meaning set forth in Section 3.

1.7 "Plan" shall mean the Barnes Group Inc. Supplemental Executive Retirement Plan, as amended and set forth herein or in any amendment hereto.

1.8 "Qualified Plan" shall mean the Barnes Group Inc. Salaried Retirement Income Plan as amended and in effect from time to time, a pension plan which is intended to satisfy the requirements for qualification under Section 401(a) of the Code.

1.9 "RBEP" shall mean the Barnes Group Inc. Retirement Benefit Equalization Plan, as amended and in effect from time to time.

1.10 "Separation from Service" shall mean a "separation from service" from the Company and all corporations and other trades or businesses aggregated with the Company, as determined under rules set forth in Treasury Regulation section 1.409A-1(h), as in effect from time to time, or a successor thereto. If there is a question as to whether a Participant's employment has been terminated or his or her employment relationship remains intact on account of the types of absences described in (a), (b), and (c) below, the following rules (to be interpreted consistent with Treasury Regulation section 1.409A- 1(h)) shall apply:

(a) The employment relationship shall be treated as continuing intact while the Participant is on military leave, sick leave, or other bona fide leave of absence if the period of such leave does not exceed six months, or if longer, so long as the Participant retains a right to reemployment with the Company under an applicable statute or by contract. If the period of leave exceeds six months and the Participant does not retain a right to reemployment under an applicable statute or by contract, the employment relationship is deemed to terminate on the first date

immediately following such six-month period.

(b) For purposes of this Section 1.10, a leave of absence constitutes a "bona fide" leave of absence only if there is a reasonable expectation that the Participant will return to perform services for the Company.

(c) Notwithstanding the foregoing, where (i) a leave of absence is due to any medically determinable physical or mental impairment that can be expected to last for a continuous period of not less than six months, and (ii) such impairment causes the Participant to be unable to perform the duties of his or her position of employment or any substantially similar position of employment, a 29-month period of absence shall be substituted for the six-month period described in paragraph (a) hereof, regardless of whether the Participant retains a contractual right to reemployment, unless the employment relationship is otherwise terminated by the Company or the Participant.

1.11 "Specified Employee" shall mean a "Specified Employee" within the meaning of Treasury Regulation section 1.409A-1(i) as in effect from time to time, as determined in accordance with Section 5 below.

1.12 "Spouse" shall mean the individual to whom the Participant is legally married by civil or religious ceremony under the laws of the state in which the Participant is legally domiciled on the date the determination of whether there is a Spouse is being made.

1.13 "SSORP" shall mean the Barnes Group Inc. Supplemental Senior Officer Retirement Plan, as amended and in effect from time to time.

SECTION 2 PURPOSE OF PLAN

2.1 Purpose. The Plan is intended to provide supplemental retirement benefits to selected executives of the Company. Such benefits shall be payable out of the general assets of the Company. Notwithstanding the foregoing, in the discretion of the Committee, the Company may enter into one or more grantor trusts (sometimes known as "rabbi trusts") for the purpose of financing part or all of its obligations under the Plan.

SECTION 3 ENTITLEMENT TO A BENEFIT

3.1 Participant's Entitlement to a Benefit. Subject to Section 6.8, an individual shall be entitled to a benefit under Section 4 of this Plan if he or she (a) meets one of the criteria in (i) or (ii) below and (b) as of April 1, 2012, is (x) receiving benefits hereunder or (y) vested in his or her benefits in accordance with the terms herein:

(a) The individual is an Executive Officer of Barnes Group Inc. (as determined by the Committee) on or after November 16, 1979, who has a Separation from Service (whether as an Officer or as a non-Officer) at or after age 55 with a vested benefit under the Qualified Plan and with 10 or more years of service; or

(b) The individual is an employee of the Company who has been designated to participate in this Plan by the Committee.

The Committee shall determine how "years of service" are determined for purposes of this Plan and, consistent with any applicable written employment or similar agreement between the Company and a Participant, may provide credit for both periods of employment with the Company and affiliates of the Company and other credit.

In no event shall a benefit be provided under this Plan except on account of a Participant's Separation from Service. (Thus, for example, no benefit shall be paid on account of death, disability, or other reasons.) An individual entitled to a benefit hereunder is a " Participant ."

SECTION 4 BENEFITS

4.1 Benefit Components. The Plan provides a Qualified Plan component, a SSORP component, and a RBEP component, determined in the manner set forth below. A Participant who does not have a Spouse on the date the payment of benefits hereunder actually commences (with regard to Section 5.1) shall receive the Qualified Plan component only. A Participant who has a Spouse on such date shall receive (a) the Qualified Plan component and the SSORP component, if he or she participates in the SSORP, or (b) the Qualified Plan component and the RBEP component, if he or she participates in the RBEP, or (c) the Qualified Plan component, the SSORP component and the RBEP component, if he participates in the SSORP and was designated by the Committee to participate in the RBEP on or after February 8, 2010 and after the date on which he satisfied the age and service conditions to receive a benefit payable upon Separation from Service (as defined in the SSORP) under the SSORP, with "participation" determined by the Committee in the event of any ambiguity.

4.2 Qualified Plan Component. This component shall be the product, determined as of the Participant's Benefit Commencement Date hereunder, of (a) the Participant's Qualified Plan Benefit, times (b) one (1.0) minus the 50% contingent annuitant factor applicable under the Qualified Plan for the ages of the Participant and the Participant's Spouse (or, if the Participant has no Spouse, for an assumed Spouse with the same age as the Participant).

4.3 SSORP Component. This component shall be the product, determined as of the Participant's Benefit Commencement Date hereunder, of (a) the Participant's SSORP Benefit, if any, times (b) one (1.0) minus the 50% contingent annuitant factor applicable under the Qualified Plan for the ages of the Participant and the Spouse.

4.4 RBEP Component. This component shall be the product, determined as of the Participant's Benefit Commencement Date hereunder, of (a) the Participant's RBEP benefit, if any, times (b) one (1.0) minus the 50% contingent annuitant factor applicable under the Qualified Plan for the ages of the Participant and the Spouse.

4.5 Definition of Terms. For purposes of determining the benefits payable pursuant to this Section 4, the following terms shall have the following meanings:

(a) ***"Qualified Plan Benefit"*** shall mean the amount of pension benefit that is or would be payable to the Participant under the Qualified Plan, expressed in the form of a single life annuity, as of the Benefit Commencement Date under this Plan (but not including any amount accrued under the Qualified Plan after a Separation from Service, within the meaning of this Plan, on or after May 30, 2008), whether or not the Participant actually receives his or her Qualified Plan benefits in that form and at that time.

(b) ***"SSORP Benefit"*** shall mean the amount of retirement benefit that is or would be payable to the Participant under the SSORP, expressed in the form of a single life annuity, as of the Benefit Commencement Date under this Plan (but not including any amount accrued under the SSORP after a Separation from Service, within the meaning of this Plan, on or after May 30, 2008), whether or not the Participant actually receives his or her SSORP benefits in that form.

(c) ***"RBEP Benefit"*** shall mean the amount of retirement benefit that is or would be payable to the Participant under the RBEP, expressed in the form of a single life annuity, as of the Benefit Commencement Date under this Plan (but not including any amount accrued under the RBEP after a Separation from Service, within the meaning of this Plan, on or after May 30, 2008), whether or not the Participant actually receives his or her RBEP benefits in that form.

4.6 Form of Benefit. Except as provided in Sections 4.8 and 4.9, the benefit payable to a Participant under this Plan shall be payable solely in the form of a single life annuity providing monthly payments, with the first payment to be due on the Benefit Commencement Date specified below but actually commencing within the 90-day period beginning on the Benefit Commencement Date (subject to Section 5.1) and ending with the last payment made to the Participant prior to his or her death. Consistent with Section 5.1, any payment due for a month prior to the month in which benefits actually commence shall be paid when benefits actually commence, with no adjustment for interest.

4.7 Benefit Commencement Date. The Benefit Commencement Date under this Plan shall be as follows:

(a) If the Participant is entitled to a SSORP Component, the Benefit Commencement Date for both the Participant's Qualified Plan Component and SSORP Component shall be the Participant's "Benefit Commencement Date" under the SSORP;

(b) If the Participant is entitled to a RBEP Component, the Benefit Commencement Date for both the Participant's Qualified Plan Component and RBEP Component shall be the Participant's "Benefit Commencement Date" under the RBEP; and

(c) If the Participant is not entitled to either a SSORP or a RBEP Component but is entitled to a Qualified Plan Component, the Benefit Commencement Date for such Component shall be the first day of the month following the day on which the Participant has a Separation from Service, within the meaning of this Plan; provided, however, that if a Participant becomes entitled to a benefit

hereunder prior to his or her 55 th birthday, the Benefit Commencement Date shall be the first day of the month following the Participant's 55 th birthday.

4.8 Form of Benefit for SSORP, Group II Participants. If a Participant under this Plan is entitled to a SSORP Component and is a Group II Participant in the SSORP, the SSORP Component shall be converted from the form of a single

life annuity to a lump sum and then paid in five installments, with the first installment paid within the 90-day period beginning on the Participant's Benefit Commencement Date specified in Section 4.7 (but subject to Section 5.1) and the last four installments paid on anniversaries of the Benefit Commencement Date. The Participant's Qualified Plan Component shall be paid in the form of a life annuity, pursuant to the foregoing provisions of this Section 4. Determination of the amounts payable hereunder in installments shall be made by the Committee, in consultation with the Company's actuary, and in accordance with a methodology that is substantially similar to that used for computing installments under the SSORP. Notwithstanding the foregoing, any installments payable hereunder shall be discontinued, with no installment or other form of payment provided to a beneficiary or any other person, in the event of a Participant's death before the receipt of five installments.

4.9 Lump Sum Cashout. Notwithstanding the foregoing or any other provisions of the Plan, in the discretion of the Committee, a lump sum may be paid to a Participant within 90 days of the Participant's Benefit Commencement Date (subject to Section 5.1) in satisfaction of his or her interest under this Plan if the value thereof as of the Participant's Benefit Commencement Date does not exceed the applicable dollar amount under Section 402(g)(1)(B) of the Code and the payment results in the termination and liquidation of the entirety of the Participant's interest under the Plan, including all agreements, methods, program, or other arrangements with respect to which deferrals of compensation are treated as having been deferred under a single nonqualified deferred compensation plan under Treasury Regulation section 1.409A-1(c)(2). The Committee shall document its decision to make a lump sum payment hereunder on or before the date of the payment.

SECTION 5 SECTION 409A PROVISIONS

5.1 Six-Month Delay Rule. Notwithstanding any provision of this Plan to the contrary, (a) no "distributions" (within the meaning of Treasury Regulation section 1.409A-1(c)(3)(v)) of deferred compensation that is subject to Section 409A of the Code may be made pursuant to this Plan to a Specified Employee due to a Separation from Service before the date that is six months after the date of such Specified Employee's Separation from Service; and (b) any distribution that, but for the preceding clause (a), would be made before the date that is six months after the date of the Specified Employee's Separation from Service shall be paid on the first day of the seventh month following the date of his or her Separation from Service. For the avoidance of doubt, the preceding sentence shall apply to any amount (and only to any amount) to be paid pursuant to this Plan to which Code Section 409A(a)(2)(B)(i) (relating to Specified Employees) applies, and shall not apply to any amount or benefit to be paid or provided pursuant to this Plan if and to the extent that such amount or benefit is not subject to Section 409A of the Code for any reason, including, without limitation, Treasury Regulation section 1.409A-1(a)(5) (relating to welfare benefit plans), Treasury Regulation section 1.409A-1(b)(4) (relating to short-term deferrals), Treasury Regulation section 1.409A-1(b)(9) (relating to separation pay plans), or the "grandfather" rules incorporated in Treasury Regulation section 1.409A-6(a).

5.2 Specified Employees. If at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, a person who participates in or has any legally binding right, contingent or otherwise, under this Plan (a " Plan Participant ") is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code section 416(i)(5)), then the Plan Participant shall be treated as a Specified Employee for purposes of Section 5.1 above for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board or the Committee at any time prescribes a different method of identifying service providers who will be subject to the six month delay required by Section 409A(a)(2)(B)(i) of the Code (the " Six Month Delay ") in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a " Different Identification Method ") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a " Different Election "), in which case whether the Participant shall be treated as a Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board or Committee. By participating or continuing to participate in this Plan or accepting any legally binding right under this Plan, each Participant irrevocably (a)

consents to any such Different Identification Method that the Board or Committee may prescribe at any time and any such Different Election that the Board or Committee may make at any time for purposes of identifying the service providers who will be subject to the Six Month Delay with respect to payments under this Plan, and (b) agrees that the Participant's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein,

and (c) waives any right he or she may have to consent to the Different Identification Method or Different Election in question if for any reason the Participant's consent to such Different Identification Method or Different Election is not legally effective.

5.3 Installments Rule. If any Participant or beneficiary has any right under this Plan to "a series of installment payments that is not a life annuity" (within the meaning of Treasury Regulation section 1.409A-2(b)(2)(iii)), then such right shall be treated as a right to a series of separate payments within the meaning of Treasury Regulation section 1.409A- 2(b)(2)(iii).

5.4 General 409A Provisions. Any compensation that may be paid or provided pursuant to this Plan is intended to qualify for an exclusion from Section 409A of the Code or to comply with Section 409A of the Code, so that none of such compensation will be includible in any Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code. This Plan shall be administered, interpreted and construed to carry out such intention, and any provision of this Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company and any other person or entity with any responsibility for the Plan (including, but not limited to, the Board) do not represent, warrant or guarantee that any compensation that may be paid or provided pursuant to this Plan will not be includible in a Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, nor do the Company and other persons and entities with any responsibility for the Plan make any other representation, warranty or guaranty to any Plan Participant as to the tax consequences of this Plan or of participation in this Plan. If, notwithstanding the foregoing, amounts are includible in a Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, the payment of benefits will be accelerated to the extent determined by the Committee and permitted by Treasury Regulation section 1.409A-3(j)(vii).

SECTION 6 ADMINISTRATION AND GENERAL PROVISIONS

6.1 Administration . The Committee shall have full power and authority to interpret and construe the terms of this Plan, and to administer it, and the Committee's interpretations and construction thereof, and actions thereunder, including, but not limited to determining the amount or recipient of any benefits to be made therefrom, shall be binding and conclusive on all persons for all purposes. The Board, the Committee, the Benefits Committee, their individual members, and such persons' agents and representatives of the Board shall not be liable to any person for any action taken or omitted in connection with the interpretation and administration of this Plan unless attributable to willful misconduct or lack of good faith.

6.2 Expenses of Administration . All expenses incurred in connection with the execution of this Plan and in carrying out the provisions hereof shall be paid by the Company.

6.3 Information from Participant . Each Participant shall furnish to the Company such information as the Company may reasonably request for purposes of the proper administration of the provisions of this Plan.

6.4 No Employment Rights . Nothing contained in the Plan shall be construed as a contract of employment between the Company and a Participant, or as a right of any Participant to be continued in the employment of the Company, or as a limitation of the right of the Company to discharge any of its Participants, with or without cause. Any benefit payable under this Plan shall not be deemed salary, earnings, or other compensation to the Participant for the purpose of computing benefits to which he may be entitled under any qualified retirement plan or other arrangement of the Company for the benefit of its employees.

6.5 Restrictions on Alienation and Assignment. Neither a Participant nor any other person having or claiming to

have an interest under this Plan shall have the right to assign, transfer, hypothecate, encumber, commute or anticipate any interest in any payments hereunder, and such payments shall not in any way be subject to any legal process to levy upon or attach the sum for payment of any such claim against the Participant or other person.

6.6 Facility of Payment . If the Committee shall find, upon receipt of medical evidence or legal representations satisfactory to the Committee, that any Participant or other person to whom a benefit is payable is unable to care for such person's affairs because of illness or accident, any payment due hereunder (unless a prior and valid claim

therefor shall have been made by a duly appointed guardian, conservator or other legal representative) may be paid to such person's spouse, child, parent or brother or sister, or to any person or persons determined by the Committee to have incurred expense for such Participant. Any payment shall be a complete discharge of all liability hereunder.

6.7 Failure to Claim Amounts Payable . In the event that any amount shall become payable hereunder to a person and, after written notice from the Company mailed to such person's last known address as shown in the Company's records and after diligent effort,

the Company is unable to locate such person, the Company shall apply to a court of competent jurisdiction for direction as to the distribution of such amount.

6.8 Amendment and Termination . The Board reserves the right to amend and/or terminate the Plan at any time for whatever reasons it may deem appropriate (or for no reason), except that no such amendment or termination shall adversely affect the benefits payable to any person who has begun to receive benefits hereunder and no such amendment or termination may accelerate or defer the payment of compensation except as permitted by Section 409A of the Code.

6.9 Gender and Number . All the words and terms used herein, regardless of the number and gender in which they shall be used, shall be deemed to include any other number, singular and plural, and any other gender, masculine and feminine, as the context may require.

6.10 Law Applicable . This Plan shall be governed by the laws of the State of Connecticut to the extent not superseded by federal law.

6.11 Delegation of Authority. The Board, the Committee, and the Benefits Committee may delegate the responsibilities allocated to them under the terms of this Plan to others, including, but not limited to, a Board delegation to the Committee or the Benefits Committee, a Committee or Benefits Committee delegation to one or more members, and a delegation by the Board or one of the committees to Company employees. As long as the delegation is lawful, neither an employee nor any other person shall have the right to raise any questions relating to such delegation of authority and responsibility for interpreting, construing, and administering the Plan.

6.12 Releases. Any provision of this Plan to the contrary notwithstanding, each payment to a person hereunder shall be contingent on the person having executed and delivered to the Company, at such time and times in advance of the payment date as the Committee or its delegate may specify, any covenant agreement and release of claims that the Committee or its delegate may require, and on any such covenant and release of claims having become irrevocable by their terms in advance of the payment date. Without limiting the generality of the foregoing, the Committee or its delegate may require a covenant and release to be executed and delivered to the Company within a specified period of time following the Participant's Separation from Service, and another release to be executed and delivered to the Company within a specified period of time following another event or date as the Committee or its delegate may specify. Amounts

not paid hereunder due to a failure to execute any covenant or release required by the Committee shall be treated as forfeited.

BARNES GROUP INC.

Senior Executive Enhanced Life Insurance Program As Amended and Restated Effective April 1, 2011

Preamble

The Barnes Group Inc. Senior Executive Enhanced Life Insurance Program (the "Program") was originally adopted effective October 1, 1992 and was previously amended by the Board of Directors effective May 16, 1997, December 31, 2007 and December 31, 2008.

In accordance with the Board of Directors' unrestricted right to amend, modify, withdraw or add to any of the benefits, terms or conditions of the Program at any time, the Board of Directors hereby amends and restates the Program effective April 1, 2011.

To the extent the Program is subject to the requirements imposed by Code section 409A on nonqualified deferred compensation plans (and the applicable guidance issued thereunder), the Program is intended to comply with such requirements and the terms of the Plan shall be interpreted consistently therewith.

The Program, as amended and restated effective April 1, 2011, shall not apply to any amounts (including without limitation taxable benefits) to be paid or provided pursuant to the provisions of the Program as in effect prior to December 31, 2007 that are "grandfathered" from Code section 409A (i.e., that constitute compensation to which Code section 409A does not apply pursuant to Treasury Regulation section 1.409A-6 or any other applicable Treasury Department guidance) ("Grandfathered Amounts"). Grandfathered Amounts shall be determined in accordance with, and be governed

exclusively by, the provisions of the Program as in effect before December 31, 2007. Effective December 31, 2008, any amounts, other than Grandfathered Amounts, to be paid or provided under the Program shall be determined in accordance with, and be governed exclusively by, the Program as amended and restated effective December 31, 2008

and as further amended and restated effective April 1, 2011, which is set forth herein.

Section 1. Purpose

The Senior Executive Enhanced Life Insurance Program (SEELIP) is designed to provide an alternative to the Company's

standard group term life insurance plan to officers and selected employees of Barnes Group Inc. that provides increasing cash value and little or no post-retirement income tax liabilities.

Section 2. Definitions

2.1 "Affiliate" means a corporation or trade or business that, together with the Company, is a member of: (a) a controlled group of corporations, within the meaning of Code section 414(b), or (b) a group of trades or businesses under common control, within the meaning of Code section 414(c).

2.2 "Base Salary" means annual compensation excluding any bonuses or other special compensation.

2.3 "Benefits Committee" means the Benefits Committee appointed by the Board of Directors, which Committee has the sole authority and discretion to administer the Plan in accordance with its terms and purposes.

2.4 "Board of Directors" means the Board of Directors of the Company.

2.5 "Code" means the Internal Revenue Code of 1986, as amended from time to time.

2.6 "Company" means Barnes Group Inc.

2.7 "CMDC" means the Compensation and Management Development Committee of the Company's Board of Directors.

2.8 "Death Benefit" means the amount of life insurance provided under the Plan pursuant to Section 5.1.

2.9 "Eligible Employee" means: (i) any officer of the Company; or (ii) an employee of the Company who has been designated to participate in the Program by the Board of Directors; provided that, notwithstanding the foregoing, the CMDC may exclude any officer of the Company from participation in the Program at any time before an Insurance Policy is issued to such officer under the Program. Notwithstanding the foregoing, no

employee of the Company may become an Eligible Employee after April 1, 2011.

2.10 "Insurance Policy" means the Group Flexible Premium Adjustable Life Insurance Policy issued by Massachusetts Mutual Life Insurance Company to provide the benefits under this Plan, as in force on April 1, 2011, and any successor life insurance policy obtained to provide such benefits. The specific terms of the Insurance Policy that apply to each Participant in the Plan are reflected in an individual certificate issued by the Massachusetts Mutual Life Insurance Company to, or on behalf of, each such Participant as the insured.

2.11 "Life Insurance Company" means Massachusetts Mutual Life Insurance Company, or any other insurance carrier that the Company might use for this program.

2.12 "Participant" means an Eligible Employee who has met insurance underwriting requirements and is issued an Insurance Policy under the terms of this Plan.

2.13 "Plan" means the Barnes Group Inc. Senior Executive Enhanced Life Insurance Program (SEELIP) **,** as amended and in effect from time to time.

2.14 "Plan Year" means July 1st through June 30th.

2.15 "Reimburse" (including without limitation "Reimburse a Participant") or "Reimbursement" means a payment by the Company to a Participant, or directly to the Life Insurance Company or federal, state or local taxing authority on behalf of the Participant, as applicable, to pay any Required Insurance Premiums or federal, state or local income taxes attributable to such premium payments or attributable to such payment of income taxes. For the avoidance of doubt, income taxes attributable to premium payments hereunder shall be fully grossed up, so that Participants will not incur any out-of-pocket cost for income taxes attributable to premium payments hereunder.

2.16 "Required Insurance Premium" means the insurance premiums, if any, determined on an objective, nondiscretionary basis by the Life Insurance Company in accordance with Section 7.

2.17 "Separation from Service" (or "Separates from Service") means a Participant's death, retirement or other termination of employment with the Company and all Affiliates. Whether a Separation from Service has occurred shall be determined

by the Benefits Committee based on all of the facts and circumstances and in accordance with Treasury Regulation section 1.409A-1(h) and any other relevant guidance issued under Code section 409A.

Section 3. Administration

The Plan shall be administered by the Benefits Committee.

Section 4. Participation in the Plan

4.1 Each Eligible Employee may participate in the Plan on the first day of the Plan Year coinciding with or next following his or her date of eligibility for the Company's group term life insurance plan.

4.2 Eligible Employees may apply to become participants in the Plan by completing an application to the Life Insurance Company and submitting any required documentation. Acceptance in the Plan is subject to the Life Insurance Company's underwriting requirements. An Eligible Employee shall become a Participant in the Plan when an Insurance Policy covering him or her is issued by the Life Insurance Company.

Section 5. Life Insurance Benefits

5.1 The basic life insurance benefit equals four (4) times the Eligible Employee's Base Salary, rounded up to the next $1,000, determined as of the beginning of each Plan Year. In the case of an Eligible Employee for whom Reimbursements may be made after Separation from Service (i.e., an Eligible Employee who

before Separation from Service has attained age 55 and at least ten (10) years of service with the Company and/or an Affiliate), the Eligible Employee's Base Salary used to calculate his life insurance benefit under the

Plan shall not be adjusted after the date the Eligible Employee experiences a Separation from Service.

5.2 When a Participant receives an increase in Base Salary, the amount of additional life insurance (equal to four

(4) times the increase in Base Salary rounded up to the next $1,000) will be provided through the Company's group term life insurance plan unless the salary increase is granted on or before, and effective as of, the beginning of a Plan Year, in which case it will be provided under the Plan. The additional life insurance benefit that is provided through the Company's group term life insurance plan pursuant to the preceding sentence will be provided under the Plan as of the first day of the immediately following Plan Year, subject to the Life Insurance Company's underwriting requirements and provided that the Eligible Employee does not have a Separation from Service on or before such date.x

5.3 The owner of the Insurance Policy is the Participant unless otherwise designated by the Participant. The cash value of the Insurance Policy belongs to the owner. Beneficiary designations are made by the owner of the Insurance Policy and may be changed at any time. Upon termination of employment, the Insurance Policy may be continued by the policy owner.

Section 6. Company's Reimbursement of Premiums and Taxes

6.1 Subject to Sections 6.2 and 6.3, the Company shall Reimburse a Participant for all Required Insurance Premiums and the federal, state and local income taxes attributable to the Company's Reimbursement of the Required Insurance Premiums and the income taxes attributable thereto. For purposes of determining the amount of income taxes attributable to the Company's Reimbursement of the Required Insurance Premiums and the income taxes attributable thereto, the highest marginal rates at which the Participant incurs taxes shall be used. Any Required Insurance Premiums shall be Reimbursed in the quarter of the Plan Year in which Section

7.1 or, if applicable, Section 7.3 below contemplates that they will be paid to the Life Insurance Company. In each calendar year in which Required Insurance Premiums are required to be Reimbursed pursuant to the foregoing provisions of this Section 6.1 or Section 6.3 below, the Company shall Reimburse the Participant for

the income taxes attributable to the Reimbursement of such Required Insurance Premiums and the income taxes attributable thereto. For the avoidance of doubt, the Company shall Reimburse the Participant for the income taxes attributable to the Reimbursement of such Required Insurance Premiums and the income taxes attributable thereto when the Participant remits such income taxes within the meaning of Treasury Regulation section 1.409A-3(i)(1)(v). Within the meaning of Treasury Regulation section 1.409A-3(i)(1)(iv), the amount of Required Insurance Premiums and income taxes eligible for reimbursement during a Participant's taxable year may not affect the amount of Required Insurance Premiums and income taxes eligible for reimbursement in any other taxable year, and the in-kind benefits provided pursuant to the Plan during a

Participant's taxable year may not affect the in-kind benefits to be provided pursuant to the Plan in any other taxable year. In addition to any other limitations and restrictions that apply pursuant to the Plan, and notwithstanding any provision of the Plan to the contrary, payment of each Reimbursement is subject to the condition that (a) the Participant must be actively employed in the calendar year in which the Reimbursement in question is paid or, if a Reimbursement is paid on or after January 1 and on or before March 15 of a calendar year, must be actively employed in such January 1 to March 15 period or in the immediately preceding calendar year, and must not have had a Separation from Service before the calendar year in which the Reimbursement in question is paid, unless the Reimbursement in question is paid on or after January 1 and on or before March 15 of a calendar year, in which case must not have had a Separation from Service before the immediately preceding calendar year, or (b) the Participant must have attained age 55 and at least ten (10) years of service with the

Company and/or an Affiliate on or before the date on which such Reimbursement is paid and before a Separation from Service.

6.2 Except as provided in Section 6.3, the Company shall cease Reimbursing the Required Insurance Premiums and associated income taxes as of the end of the Plan Year quarter in which any of the following occurs:

(a) a Participant Separates from Service, or

(b) a Participant obtains a loan or withdraws any portion of the cash surrender value under the Insurance Policy, or

(c) six months after the commencement of an unpaid leave of absence, or

(d) two years after the Participant is first absent from work because of a disability.

6.3 If a Participant who has at least ten (10) years of service with the Company and/or an Affiliate attains age fifty- five (55) before a Separation from Service occurs, the Company shall continue to Reimburse any Required Insurance Premiums and associated income taxes in accordance with Section 6.1 during the lifetime of the Participant unless and until the Plan is amended to provide otherwise pursuant to Section 9.1 or the Participant obtains a loan or withdraws any portion of the cash surrender value under the Insurance Policy. The Reimbursement described in the preceding sentence shall not apply to any Participant who has a Separation from Service after April 1, 2011, other than a Participant who has at least ten (10) years of service with the Company and/or an Affiliate and who attains age sixty-two (62) on or prior to December 31, 2011.

6.4 If the Company ceases to Reimburse Required Insurance Premiums for any reason, including those in Section 6.2, the policy owner may continue paying the premium on his own, may borrow against the policy to pay premiums, or may cash in the policy.

Section 7. Required Insurance Premiums

7.1 Prior to a Participant's Separation from Service or, if earlier, the later of (a) the end of the Plan Year in which the Participant attains age sixty-five (65), or (b) the end of the Plan Year in which the minimum period necessary to avoid having the Insurance Policy classified as a modified endowment contract under Code section

7702A ends, the Required Insurance Premiums for any Plan Year shall be the quarterly insurance premiums that as of the beginning of such Plan Year are required to be paid to the Life Insurance Company on the first day of each quarter during such Plan Year (i.e., July 1, October 1, January 1 and April 1) to provide the Participant with the Death Benefit under the

Insurance Policy through age one hundred (100), assuming that the Insurance Policy is to be funded only with quarterly premiums in the same amount and on the same quarterly payment dates through the end of the Plan Year in which the Participant attains age sixty-five (65), or, if later, the end of the Plan Year in which ends the minimum period necessary to avoid having the Insurance Policy

classified as a modified endowment contract under Code section 7702A (hereinafter the "MEC Period"). The Required Insurance Premiums for any Plan Year shall be determined by the Life Insurance Company in advance of the beginning of such Plan Year, and its determination shall be final, conclusive and binding. This annual determination by the Life Insurance Company shall be based on the Life Insurance Company's interest crediting rate, mortality charge rate and administrative charge rate applied to all policyholders of the Life Insurance Company with the same type of Insurance Policy provided under this Plan as of the beginning of the Plan Year in question.

7.2 If a Participant who has at least ten (10) years of service with the Company and/or an Affiliate Separates from Service after attaining age fifty-five (55), but before attaining age sixty-five (65), or, if later, the end of the MEC Period, the Life Insurance Company shall annually make the same determination as described in

Section 7.1 through the end of the Plan Year in which the Participant attains age sixty-five (65), or, if later, the end of the Plan Year in which the MEC Period ends, for purposes of determining the Participant's Required Insurance Premiums.

7.3 After the end of the Plan Year in which a Participant attains age sixty-five (65), or, if later, in which the MEC Period ends, the Required Insurance Premiums (if any) for any Plan Year shall be the quarterly insurance premiums determined by the Life Insurance Company in advance of such Plan Year, that if paid to the Life Insurance Company in substantially equal payments on the first day of each quarter during such Plan Year (i.e., July 1, October 1, January 1 and April 1) and the immediately following Plan Year (i.e., over a two-Plan Year period) or, if longer, paid to the Life Insurance Company in substantially equal quarterly payments in such Plan Year and each subsequent Plan Year commencing during the MEC Period, would be required to maintain the Death Benefit through age one-hundred (100), using the same assumptions prescribed in the last sentence of Section 7.1 as of the beginning of such Plan Year; provided, however, that there shall be no such Required Insurance Premiums pursuant to this Section 7.3 for any Plan Year on or before July 1 of which the Participant Separated from Service with less than ten (10) years of service with the Company and/or an Affiliate or before attaining age fifty-five (55). The Required Insurance Premiums determined under this Section 7.3 for any Plan Year (if any) shall be determined as of the beginning of such Plan Year and any Required Insurance Premiums

for any subsequent Plan Year shall be based solely on the separate determination for such subsequent Plan Year (i.e., a

separate determination will be made for each

Plan Year regardless of whether the determination with respect to a prior Plan Year was based on premiums being paid over more than one Plan Year).

7.4 Subject to the last sentence of Section 6.1 above, if a Participant Separates from Service before attaining age fifty-five (55) or ten (10) years of service with the Company and/or an Affiliate, there shall be no Required Insurance Premiums or other Reimbursements after the quarter of the Plan Year in which such Separation from Service occurs.

7.5 Notwithstanding the preceding provisions of this Section 7 (other than Section 7.4), if a Participant obtains a loan or withdraws any portion of the cash surrender value under the Insurance Policy before his or her death, the Participant will no longer be eligible to participate in the Plan and there shall be no Required Insurance Premiums after the quarter of the Plan Year in which such loan or withdrawal occurs.

Section 8. Sole Life Insurance Benefit

Notwithstanding anything to the contrary in any benefit materials or summary plan descriptions, a Participant in the Plan shall have no rights to any benefits under any other group life insurance program funded in whole or in part by the Company or any Affiliates.

Section 9. Miscellaneous

9.1 Notwithstanding any other provision herein to the contrary, the Plan may be amended at any time and in any respect by the vote of a majority of the members

of the Benefits Committee or by the unanimous written consent of the members of the Benefits Committee. Notwithstanding the foregoing, any amendment affecting the level of benefits under the Plan must be made by

the CMDC. In addition, the Plan may be terminated at any time by the CMDC.

9.2 The Benefits Committee shall, in its sole discretion, interpret and construe the Plan's terms and provisions and determine an individual's eligibility for benefits. Any interpretations, constructions or determinations made by the Benefits Committee in good faith shall be final and binding on all parties.

9.3 Circumstances not specifically covered in this Plan document will be reviewed by the Benefits Committee and the Benefits Committee in its discretion will apply such rules as it deems appropriate.

Section 10. Section 409A Provisions

10.1 A Participant's right to the Reimbursements provided by Section 6.1 and Section 6.3 shall be treated as a right to a series of separate payments for purposes of Code section 409A, including without limitation for purposes of the short-term deferral rule set forth in Treasury Regulation section 1.409A-1(b)(4).

10.2 Any provision of the Plan to the contrary notwithstanding, if any payments or benefits under the Plan to or on behalf of a specified employee within the meaning of Treasury Regulation section 1.409A-1(i)("Specified Employee") are deferred compensation subject to section 409A of the Code and are deemed to be made due to a Separation from Service, then any such payments or benefits that would otherwise be paid or provided during the six-month period following such

Separation from Service shall not be paid or provided during such six month period but instead shall be accumulated (within the meaning of Treasury Regulation section 1.409A-3(i)(2)(ii)) and paid or provided on the first day of the seventh month following the date of such Separation from Service (or, if earlier, within 14 days after the death of the specified employee). For the avoidance of doubt, the preceding sentence shall apply to any amount or benefit (and only to any amount or benefit) to be paid or provided pursuant to this Plan to which Code section 409A(a)(2)(B)(i) (relating to Specified Employees) applies, and shall not apply to any payment or benefit that is not subject to Code section 409A as a result of Treasury Regulation section 1.409A- 1(b)(4) (relating to short-term deferrals), Treasury Regulation section 1.409A-1(b)(9) (relating to separation pay plans), or otherwise.

10.3 If at any time during the 12-month period ending on any "specified employee identification date", which shall

be December 31, a person who participates in or has any legally binding right, contingent or otherwise, under this Plan (a "Plan Participant"), is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code section 416(i)(5)), then the Plan Participant shall be treated as a Specified Employee for purposes of Section

10.2 above for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board of Directors or the CMDC at any time prescribes a different method of identifying service providers

who will be subject to the six month delay required by section 409A(a)(2)(B)(i) of the Code (the "Six Month Delay") in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code section 409A (a "Different Identification Method") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code section 409A (a "Different Election"), in which case whether the Plan Participant shall be treated as a Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board of Directors or the CMDC. By participating or continuing to participate in this Plan or accepting any legally binding right or benefit under this Plan, each Plan Participant irrevocably (a) consents to any such Different Identification Method that the Board of Directors or CMDC may prescribe at any time and any such Different Election that the Board of Directors or CMDC may make at any time for purposes of identifying the service providers who will be subject to the Six Month Delay with respect to payments under this Plan, and (b) agrees that the Plan Participant's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (c) waives any right he or she may have to consent to the Different Identification Method or Different Election in question if for any reason the Plan Participant's

consent to such Different Identification Method or Different Election is not legally effective.

10.4 Any payments that may be made and benefits that may be provided pursuant to this Plan are intended to qualify for an exclusion from section 409A of the Code (including without limitation the exclusion for short- term deferrals under Treasury Regulation section 1.409A-1(b)(4)) and/or are intended to meet the requirements of section 409A(a)(2), (3) and (4) of the Code, so that none of the payments that may be made and benefits that may be provided pursuant to this Plan will be includible in any Plan Participant's federal gross income pursuant to section 409A(a)(1)(A) of the Code. This Plan shall be administered, interpreted and construed to carry out such intentions, and any provision of this Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any payments that may be made and benefits that may be provided pursuant to this Plan will not be includible in any Plan Participant's federal gross income pursuant to section 409A(a)(1)(A) of the Code, nor does the Company make any other representation, warranty or guaranty to any Plan Participant as to the tax consequences of this Plan or of participation in this Plan.

BARNES GROUP INC.

Enhanced Life Insurance Program

As Amended and Restated Effective April 1, 2011

Preamble

The Barnes Group Inc. Enhanced Life Insurance Program (the "Program") was originally adopted effective October 1, 1992 and was previously amended effective May 16, 1997, December 31, 2007 and December 31, 2008.

In accordance with the Company's unrestricted right to amend, modify, withdraw or add to any of the benefits, terms or conditions of the Program at any time, the Company hereby amends and restates the Program effective April 1, 2011.

To the extent the Program is subject to the requirements imposed by Code section 409A on nonqualified deferred compensation plans (and the applicable guidance issued thereunder), the Program is intended to comply with such requirements and the terms of the Plan shall be interpreted consistently therewith.

The Program as amended and restated effective April 1, 2011, shall not apply to any amounts (including without limitation taxable benefits) to be paid or provided pursuant to the provisions of the Program as in effect prior to December 30, 2007 that are "grandfathered" from Code section 409A (i.e., that constitute compensation to which Code section 409A does not apply pursuant to Treasury Regulation section 1.409A-6 or any other applicable Treasury Department guidance) ("Grandfathered Amounts"). Grandfathered Amounts shall be determined in accordance with, and be governed exclusively by, the provisions of the Program as in effect before December 30, 2007. Effective December 31, 2008, any amounts, other than Grandfathered Amounts, to be paid or provided under the Program shall be determined in accordance with, and be governed exclusively by, the Program as amended and restated effective December 31, 2008 and as further amended and restated effective April 1, 2011, which is set

forth herein.

Section 1. Purpose

The Enhanced Life Insurance Program (ELIP) is designed to replace the group term life insurance plan for salaried employees in grades 20 and above (excluding officers) of Barnes Group Inc. with insurance that provides increasing cash value and little or no post-retirement income tax liabilities.

Section 2. Definitions

2.1 "Affiliate" means a corporation or trade or business that, together with the Company, is a member of: (a) a controlled group of corporations, within the meaning of Code section 414(b), or (b) a group of trades or businesses under common control, within the meaning of Code section 414(c).

2.2 "Base Salary" means annual compensation excluding any bonuses or other special compensation.

2.3 "Benefits Committee" means the Benefits Committee appointed by the Board of Directors, which Committee has the sole authority and discretion to administer the Plan in accordance with its terms and purposes.

2.4 "Board of Directors" means the Board of Directors of the Company.

2.5 "Code" means the Internal Revenue Code of 1986, as amended from time to time.

2.6 "Company" means Barnes Group Inc.

2.7 "CMDC" means the Compensation and Management Development Committee of the Company's Board of Directors.

2.8 "Death Benefit" means the amount of life insurance provided under the Plan pursuant to Section 5.1.

2.9 "Eligible Employee" means any salaried employee of the Company in salary grades 20 and above, excluding officers; provided that, notwithstanding the foregoing, the Benefits Committee may exclude any employee of the Company from participation in the Program at any time before an Insurance Policy is issued to such employee under the Program. Notwithstanding the foregoing,

no employee of the Company may become an Eligible Employee after April 1, 2011.

2.10 "Insurance Policy" means the Group Flexible Premium Adjustable Life Insurance Policy issued by Massachusetts Mutual Life Insurance Company to provide the benefits under this Plan, as in force on April 1, 2011, and any successor life insurance policy obtained to provide such benefits. The specific terms of the Insurance Policy that apply to each Participant in the Plan are reflected in an individual certificate issued by the Massachusetts Mutual Life Insurance Company to, or on behalf of, each such Participant as the insured.

2.11 "Life Insurance Company" means Massachusetts Mutual Life Insurance Company, or any other insurance carrier that the Company might use for this program.

2.12 "Participant" means an Eligible Employee who has met insurance underwriting requirements and is issued an

Insurance Policy under the terms of this Plan.

2.13 "Plan" means the Barnes Group Inc. Enhanced Life Insurance Program (ELIP), as amended and in effect from time to time.

2.14 "Plan Year" means July 1st through June 30th.

2.15 "Reimburse" (including without limitation “Reimburse a Participant”) or "Reimbursement" means a payment by the Company to a Participant, or directly to the Life Insurance Company on behalf of the Participant, as applicable, to pay any Required Insurance Premiums.

2.16 "Required Insurance Premium" means the insurance premiums, if any, determined on an objective, nondiscretionary basis by the Life Insurance Company in accordance with Section 7.

2.17 "Separation from Service" (or "Separates from Service") means a Participant's death, retirement or other termination of employment with the Company and all Affiliates. Whether a Separation from Service has occurred shall be determined by the Benefits Committee based on all of the facts and circumstances and in accordance with Treasury Regulation section 1.409A-1(h) and any other relevant guidance issued under Code section 409A.

Section 3. Administration

The Plan shall be administered by the Benefits Committee.

Section 4. Participation in the Plan

4.1 All Eligible Employees may participate in the Plan on the first day of the Plan Year coinciding with or next following their date of eligibility for the Company's group term life insurance plan.

4.2 Eligible Employees may apply to become participants in the Plan by completing an application to the Life Insurance Company and submitting any required documentation. Acceptance in the Plan is subject to the Life Insurance Company's underwriting requirements. An Eligible Employee shall become a Participant in the Plan when an Insurance Policy covering him or her is issued by the Life Insurance Company.

Section 5. Life Insurance Benefits

5.1 Prior to retirement, the life insurance benefit, as of the beginning of each Plan Year, equals three (3) times the Eligible Employee's Base Salary, rounded up to the next $1,000 for salaried employees in grade 20, and 4 times the Eligible Employee's Base Salary, rounded up to the next $1,000 for salaried employees in grades 21 and above. In the case of an Eligible Employee for whom Reimbursements may be made for any Plan Year quarter after the quarter in which Separation from Service occurs (i.e., an Eligible Employee who before Separation from Service has attained age 55 and at least ten (10) years of service with the Company and/or an Affiliate), the Eligible Employee's Base Salary used to calculate his life insurance benefit under the Plan shall not be adjusted after the date the Eligible Employee experiences a Separation from

Service. However, the Death Benefit will be reduced in accordance with Section 5.4 below.

5.2 When a Participant receives an increase in Base Salary or a promotion from Grade 20 other than in the beginning of the Plan Year, the amount of additional life insurance (equal to 3 or 4 times the increase in Base Salary rounded up to the next $1,000 as defined in 5.1) will be provided through the Company's group term life insurance plan. The additional life insurance benefit that is

provided through the Company's group term life insurance plan pursuant to the preceding sentence will be provided under the Plan as of the first day of the immediately following Plan Year, subject to the Life Insurance Company's underwriting requirements and provided that the Eligible Employee does not have a Separation from Service on or before such date.

5.3 The owner of the Insurance Policy is the Participant unless otherwise designated by the Participant. The cash value of the Insurance Policy belongs to the owner. Beneficiary designations are made by the owner of the Insurance Policy and may be changed at any time. Upon termination of employment, the Insurance Policy may be continued by the policy owner.

5.4 Atretirement, the Death Benefit will continue at a reduced level equal to 30% of the pre-retirement Death Benefit. Notwithstanding the foregoing, no portion of the pre-retirement Death Benefit will be continued for any Participant who has a Separation from Service after April 1, 2011. Participants are eligible to continue at their own expense all or a part of the Death Benefit that does not continue into retirement, subject to Life Insurance Company provisions.

Section 6. Company's Reimbursement of Premiums

6.1 Subject to Sections 6.2 and 6.3, the Company shall Reimburse a Participant for all Required Insurance Premiums.

Any Required Insurance Premiums shall be Reimbursed in the quarter of the Plan Year in which Section 7.1 or, if applicable, Section 7.3 below contemplates that they will be paid to the Life Insurance Company. Within the meaning of Treasury Regulation section 1.409A-3(i)(1)(iv), the amount of Required Insurance Premiums eligible for reimbursement during a Participant's taxable year may not affect the amount of Required Insurance Premiums eligible for reimbursement in any other taxable year, and the in-kind benefits provided pursuant to the Plan during a Participant's taxable year may not affect the in-kind benefits to be provided pursuant to the Plan in any other taxable year. In addition to any other limitations and restrictions that apply pursuant to the Plan, and notwithstanding any provision of the Plan to the contrary, payment of each Reimbursement is subject to the condition that (a) the Participant must be actively employed

in the calendar year in which the Reimbursement in question is paid or, if a Reimbursement is paid on or after January 1 and

on or before March 15 of a calendar year, must be actively employed in such January 1 to March 15 period or in the immediately preceding calendar year, and must not have had a Separation from Service before the calendar year in which the Reimbursement in question is paid, unless the Reimbursement in question is paid on or after January 1 and on or before March 15 of a calendar year, in which case must not have had a Separation from Service before the immediately preceding calendar year, or (b) the Participant must have attained age 55 and at least ten (10) years of service with the Company and/or an Affiliate on or before the date on which such Reimbursement is paid and before a Separation from Service.

6.2 Except as provided in Section 6.3, the Company shall cease Reimbursing the Required Insurance Premiums as of the end of the Plan Year quarter in which any of the following occurs:

(a) a Participant Separates from Service, or

(b) a Participant obtains a loan or withdraws any portion of the cash surrender value under the Insurance Policy, or

(c) six months after the commencement of an unpaid leave of absence, or

(d) two years after the Participant is first absent from work because of a disability.

6.3 If a Participant who has at least ten (10) years of service with the Company and/or an Affiliate attains age fifty- five (55) before a Separation from Service occurs, the Company shall continue to Reimburse any Required Insurance Premiums in accordance with Section 6.1 during the lifetime of the Participant unless and until the Plan is amended to provide otherwise pursuant to Section 9.1 or the Participant obtains a loan or withdraws any portion of the cash surrender value under the Insurance Policy. The Reimbursement described in the preceding sentence shall not apply to any Participant who has a Separation from Service after April 1, 2011, other than a Participant who has at least ten (10) years of service with the Company and/or an Affiliate and who attains age fifty-five (55) on or prior to December 31, 2011.

6.4 If the Company ceases to Reimburse Required Insurance Premiums for any reason including those in Section 6.2, the policy owner may continue paying the premium on his own, may borrow against the policy to pay premiums, or may cash in the policy.

Section 7. Required Insurance Premiums

7.1 Prior to a Participant's Separation from Service or, if earlier, the later of (a) the end of the Plan Year in which the Participant attains age sixty-five (65), or (b) the end of the Plan Year in which the minimum period necessary to avoid having the Insurance Policy classified as a modified endowment contract under Code section 7702A ends, the Required Insurance

Premiums for any Plan Year shall be the quarterly insurance premiums that as of the beginning of such Plan Year are required to be paid to the Life Insurance Company on the first day of each quarter during such Plan Year (i.e., July 1, October 1, January 1 and April 1) to provide the Participant with the Death Benefit under the Insurance Policy through age one hundred (100), assuming that the Insurance Policy is to be funded only with quarterly premiums in the same amount and on the same quarterly payment dates through the end of the Plan Year in which the Participant attains age sixty-five (65), or, if later, the end of the Plan Year in which ends the minimum period necessary to avoid having the Insurance Policy classified as a modified endowment contract under Code section 7702A (hereinafter the "MEC Period"). For purposes of determining the Required Insurance Premiums for any Plan Year commencing prior to a Participant's Separation from Service or, if earlier, the attainment of age sixty-five (65), the Life Insurance Company shall assume that the amount of the Death Benefit described in Section 5.1 shall continue to be provided through the Plan Year in which the Participant will attain age sixty-five (65) and that thereafter the reduced Death Benefit described in Section 5.4 shall continue through age one hundred (100). The Required Insurance Premiums for any Plan Year shall be determined by the Life Insurance Company in advance of the beginning of such Plan Year, and its determination shall be final, conclusive and binding. This annual determination by the Life Insurance Company shall be based on the Life Insurance

Company's interest crediting rate, mortality charge rate and administrative charge rate applied to all policyholders of the Life Insurance Company with the same type of Insurance Policy provided under this Plan as of the beginning of the Plan Year in question.

7.2 If a Participant who has at least ten (10) years of service with the Company and/or an Affiliate Separates from Service after attaining age fifty-five (55), but before attaining age sixty-five (65), or, if later, the end of the MEC Period, the Life Insurance Company shall annually make the same determination as described in Section 7.1 through the end of the Plan Year in which the Participant attains age sixty-five (65), or, if later, the end of the Plan Year in which the MEC Period ends, for purposes of determining the Participant's Required Insurance Premiums.

7.3 After the end of the Plan Year in which a Participant attains age sixty-five (65), or, if later, in which the MEC Period ends, the Required Insurance Premiums (if any) for any Plan Year shall be the quarterly insurance premiums determined by the Life Insurance Company in advance of such Plan Year, that if paid to the Life Insurance Company in substantially equal payments on the first day of each quarter during such Plan Year (i.e., July 1, October 1, January 1 and April 1) and the immediately following Plan Year (i.e., over a two-Plan Year period) or, if longer, paid to the Life Insurance Company in substantially equal quarterly payments in such Plan Year and each subsequent Plan Year commencing during the MEC

Period, would be required to maintain the Death Benefit through age one-hundred (100), using the same assumptions prescribed in the last sentence of Section 7.1 as of the beginning of such Plan Year; provided, however, that there shall be no such Required Insurance Premiums pursuant to this Section 7.3 for any Plan Year on or before July 1 of which the Participant Separated from Service with less than ten (10) years of service with the Company and/or an Affiliate or before attaining age fifty-five (55). The Required Insurance Premiums determined under this Section 7.3 for any Plan Year (if any) shall be determined as of the beginning of each such Plan Year and any Required Insurance Premiums for any subsequent Plan Year shall be based solely on the separate determination for each such

subsequent Plan Year (i.e., a separate determination will be made for each Plan Year regardless of whether the determination with respect to a prior Plan Year was based on premiums being paid over more than one Plan Year). If a Participant continues working beyond age sixty-five (65) (i.e., has not experienced a Separation from Service), for purposes of determining the Required Insurance Premiums for any Plan Year commencing thereafter and prior to the Participant's Separation from Service, the Life Insurance Company shall assume that the amount of the Death Benefit described in Section 5.1 shall continue to be provided through the end of such Plan Year and that thereafter the reduced Death Benefit described in Section 5.4 shall continue through age one hundred (100).

7.4 Subject to the last sentence of Section 6.1 above, if a Participant Separates from Service before attaining age fifty- five (55) or ten (10) years of service with the Company and/or an Affiliate, there shall be no Required Insurance Premiums after the quarter of the Plan Year in which such Separation from Service occurs.

7.5 Notwithstanding the preceding provisions of this Section 7 (other than Section 7.4), if a Participant obtains a loan or withdraws any portion of the cash surrender value under the Insurance Policy before his or her death, the Participant will no longer be eligible to participate in the Plan and there shall be no Required Insurance Premiums after the quarter of the Plan Year in which such loan or withdrawal occurs.

Section 8. Sole Life Insurance Benefit

Notwithstanding anything to the contrary in any benefit materials or summary plan descriptions, a Participant in the Plan shall have no rights to any benefits under any other group life insurance program funded in whole or in part by the Company or any of its Affiliates.

Section 9. Miscellaneous

9.1 Notwithstanding any other provision herein to the contrary, the Plan may be amended or

terminated at any time and in any respect by the vote of a majority of the members of the Benefits Committee or by the unanimous written consent of the members of the Benefits Committee.

9.2 The Benefits Committee shall, in its sole discretion, interpret and construe the Plan's terms and provisions and determine an individual's eligibility for benefits. Any interpretations, constructions or determinations made by the Benefits Committee in good faith shall be final and binding on all parties.

9.3 Circumstances not specifically covered in this Plan document will be reviewed by the Benefits Committee and the Benefits Committee in its discretion will apply such rules as it deems appropriate.

Section 10. Section 409A Provisions

10.1 A Participant's right to the Reimbursements provided by Section 6.1 and Section 6.3 shall be treated as a right to a series of separate payments for purposes of Code section 409A, including without limitation for purposes of the short-term deferral rule set forth in Treasury Regulation section 1.409A-1(b)(4).

10.2 Any provision of the Plan to the contrary notwithstanding, if any payments or benefits under the Plan to or on behalf of a specified employee within the meaning of Treasury Regulation section 1.409A-1(i)(“Specified Employee”) are deferred compensation subject to section 409A of the Code and are deemed to be made due to a Separation from Service, then any such payments or benefits that would otherwise be paid or provided during the six-month period following such Separation from Service shall not be paid or provided during such six month period but instead shall be accumulated (within the meaning of Treasury Regulation section 1.409A- 3(i)(2)(ii)) and paid or provided on the first day of the seventh month following the date of such Separation from Service (or, if earlier, within 14 days after the death of the specified employee). For the avoidance of doubt, the preceding sentence shall apply to any amount or benefit (and only to any amount or benefit) to be paid or provided pursuant to this Plan to which Code section 409A(a)(2)(B)(i)

(relating to Specified Employees) applies, and shall not apply to any payment or benefit that is not subject to Code section 409A as a result of Treasury Regulation section 1.409A-1(b)(4) (relating to short-term deferrals), Treasury Regulation section 1.409A-1(b)(9) (relating to separation pay plans), or otherwise.

10.3 If at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, a person who participates in or has any legally binding right, contingent or otherwise, under this

Plan (a "Plan Participant"), is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code section 416(i)(5)), then the Plan Participant shall be treated as a Specified Employee for purposes of Section

10.2 above for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board of Directors or the CMDC at any time prescribes a different method of identifying service providers who will be subject to the six month delay required by section 409A(a)(2)(B)(i) of the Code (the "Six Month Delay") in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code section 409A (a "Different Identification Method") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code section 409A (a "Different Election"), in which case whether the Plan Participant shall be treated as a Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board of Directors or the CMDC. By participating or continuing to participate in this Plan or accepting any legally binding right or benefit under this Plan, each Plan Participant irrevocably (a) consents to any such Different Identification Method that the Board of Directors or CMDC may prescribe at any time

and any such Different Election that the Board of Directors or CMDC may make at any time for purposes of identifying the service providers who will be subject to the Six Month Delay with respect to payments under this Plan, and (b) agrees that the Plan Participant's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (c) waives any right he or she may have to consent to the Different Identification Method or Different Election in question if for any reason the Plan Participant's consent to such Different Identification Method or Different Election is not legally effective.

10.4 Any payments that may be made and benefits that may be provided pursuant to this Plan are intended to qualify for an exclusion from section 409A of the Code (including without limitation the exclusion for short-term deferrals under Treasury

Regulation section 1.409A-1(b)(4)) and/or are intended to meet the requirements of section 409A(a)(2), (3) and (4) of the Code, so that none of the payments that may be made and benefits that may be provided pursuant to this Plan will be includible in any Plan Participant's federal gross income pursuant to section 409A(a)(1)(A) of the Code. This Plan shall be administered, interpreted and construed to carry out such intentions, and any provision of this Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any payments that may be made and benefits that may be provided pursuant to this Plan will not be includible in any Plan Participant's federal gross income pursuant to section 409A(a)(1)(A) of the Code, nor does the Company make any other representation, warranty or guaranty to any Plan Participant as to the tax consequences of this Plan or of participation in this Plan.

Effective October 1, 1992

Amended December 30, 2007

Amended December 31, 2007

Amended December 31, 2008

Amended April 1, 2011

BARNES GROUP INC.

Executive Group Term Life Insurance Program

As Effective April 1, 2011

Preamble

The Barnes Group Inc. Executive Group Term Life Insurance Program (the "Plan") was originally adopted effective April 1, 2011.

Section 1. Purpose

The Executive Group Term Life Insurance Program is designed to replace the Enhanced Life Insurance Program (ELIP) and the Senior Executive Enhanced Life Insurance Program (SEELIP) for certain salaried employees of the Company in grades 20 and above who are hired or promoted after April 1, 2011. The Plan provides these executives with Company-provided group term life insurance and the opportunity to make additional after-tax contributions and to "port" the coverage at termination of employment and continue the benefit at group term rates.

Section 2. Definitions

2.1 "Affiliate" means a corporation or trade or business that, together with the Company, is a member of: (a) a controlled group of corporations, within the meaning of Code section 414(b), or (b) a group of trades or businesses under common control, within the meaning of Code section 414(c).

2.2 "Base Salary" means annual compensation (i.e., base salary), excluding any bonuses or other special compensation, as determined by the Company from time to time.

2.3 "Benefits Committee" means the Benefits Committee appointed by the Board of Directors, which Committee has the sole authority and discretion to administer the Plan in accordance with its terms and purposes.

2.4 "Board of Directors" means the Board of Directors of the Company.

2.5 "Code" means the Internal Revenue Code of 1986, as amended from time to time.

2.6 "Company" means Barnes Group Inc.

2.7 "CMDC" means the Compensation and Management Development Committee of the Company's Board of Directors.

2.8 "Death Benefit" means the amount of life insurance provided under the Plan pursuant to Section 5.1.

2.9 "Eligible Employee" means any salaried employee of the Company in salary grades 20 and above who is hired after April 1, 2011 or who is promoted into salary grade 20 or above after April 1, 2011; provided that, notwithstanding the foregoing, the Benefits Committee may exclude any employee of the Company from participation in the Plan at any time before an Insurance Policy is issued to such employee under the Plan.

2.10 "Insurance Policy" means the Strategic Group Variable Universal Life Insurance Policy issued by Massachusetts Mutual Life Insurance Company to provide the benefits under this Plan, as in force on April 1, 2011, and any successor life insurance policy obtained to provide such benefits. The specific terms of the

Insurance Policy that apply to each Participant in the Plan are reflected in a certificate issued by the Life Insurance Company to, or on behalf of, each such Participant as the insured.

2.11 "Life Insurance Company" means Massachusetts Mutual Life Insurance Company, or any other insurance carrier that the Company might use for this program.

2.12 "Participant" means an Eligible Employee who has met insurance underwriting requirements and is issued an Insurance Policy under the terms of this Plan.

2.13 "Plan" means the Barnes Group Inc. Executive Group Term Life Insurance Plan, as amended and in effect from time to time.

2.14 "Plan Year" means July 1st through June 30th, with the first Plan Year beginning April 1, 2011 and ending June 30, 2011.

2.15 "Separation from Service" (or "Separates from Service") means a Participant's death, retirement or other termination of employment with the Company and all Affiliates.

Section 3. Administration

The Plan shall be administered by the Benefits Committee.

Section 4. Participation in the Plan

4.1 Subject to any applicable underwriting requirements, an Eligible Employee shall commence participation in the Plan as follows:

(a) if an employee becomes an Eligible Employee before the 15th day of any month, participation shall commence as of the first day of such month; or

(b) if an employee becomes an Eligible Employee on or after the 15th day of any month, participation shall commence as of the first day of the following month.

4.2 Eligible Employees may apply to become participants in the Plan by completing an application to the Life Insurance Company and submitting any required documentation. Acceptance in the Plan is subject to the Life Insurance Company's underwriting requirements, if applicable. If coverage is subject to underwriting requirements, an Eligible Employee shall become a Participant in the Plan when approved for coverage by the Life Insurance Company.

Section 5. Life Insurance Benefits

5.1 In the event of the Participant's death, the Life Insurance Company shall pay a life insurance benefit to the Participant's designated beneficiary in accordance with the terms and conditions set forth in the Insurance

Policy.

5.2 The amount of Company-provided life insurance benefit under the Insurance Policy, as of the beginning of each Plan Year, shall equal three (3) times the Eligible Employee's Base Salary, rounded up to the next $1,000 for salaried employees in grade 20, and four (4) times the Eligible Employee's Base Salary, rounded up to the next $1,000 for salaried employees in grades 21 and above.

5.3 When a Participant receives an increase in Base Salary or a promotion from Grade 20 other than at the beginning of the Plan Year, the amount of additional

life insurance (equal to 3 or 4 times the increase in Base Salary rounded up to the next $1,000 as set forth in Section 5.1) will be provided as of the first day of the immediately following month, provided that the Eligible Employee does not have a Separation from Service on or before such date.

5.4 The owner of the Insurance Policy is the Company. Beneficiary designations are made by the Participant and may be changed at any time in accordance with procedures established by the Life Insurance Company. Upon Separation from Service other than by death, the Insurance Policy may be continued by the Participant by taking over the ownership of the Insurance Policy and paying the full cost in accordance with procedures set forth in the Insurance Policy and rules established by the Life Insurance Company.

Section 6. Contributions

6.1 All premiums under the Insurance Policy that are necessary to fund the Life Insurance Benefits described in Section 5 while the Eligible Employee is actively employed by the Company or a participating Affiliate shall be paid by the Company, except as provided in Section 6.2.

6.2 The Participant may make additional premium payments at any time (subject to certain limits described in the Insurance Policy) to a guaranteed principal account under the Insurance Policy (or to separate account divisions, if applicable). Such additional premiums will increase the death benefit under the Insurance Policy or

can be accessed through loans and withdrawals, as described in the Insurance Policy.

Section 7. Sole Life Insurance Benefit

Notwithstanding anything to the contrary in any benefit materials or summary plan descriptions, a Participant in the Plan shall have no rights to any benefits under any other group life insurance program funded in whole or in part by the Company or any of its Affiliates.

Section 8. Miscellaneous

8.1 Notwithstanding any other provision herein to the contrary, the Plan may be amended at any time and in any respect by the vote of a majority of the members of the Benefits Committee or by the unanimous written consent of the members of the Benefits Committee. Notwithstanding the foregoing, any amendment affecting the level of benefits under the Plan must be

made by the CMDC. In addition, the Plan may be terminated at any time by the CMDC.

8.2 The Benefits Committee shall, in its sole discretion, interpret and construe the Plan's terms and provisions and determine an individual's eligibility for benefits. Any interpretations, constructions or determinations made by the Benefits Committee in good faith shall be final and binding on all parties.

8.3 Circumstances not specifically covered in this Plan document will be reviewed by the Benefits Committee and the Benefits Committee in its discretion will apply such rules as it deems appropriate.

8.4 If any person believes that he/she is not receiving any benefits to which he/she is entitled under the Plan, the person may file a written claim with the Life

Insurance Company in accordance with a reasonable claims procedure established by the Life Insurance

Company in accordance with Section 503 of the Employee Retirement Income Security Act of 1974, as amended, and the regulations thereunder.

8.5 The Plan shall be governed by the laws of the State of Connecticut to the extent not preempted by federal law.

Effective April 1, 2011

SEVERANCE AGREEMENT

THIS AGREEMENT, dated **[ ]**, is made by and between Barnes Group Inc., a Delaware corporation (the "Company"), and **[ ]** (the "Executive").

WHEREAS, the Company considers it essential to the best interests of its shareholders to foster the continued employment of key management personnel; and

WHEREAS, the Board recognizes that, as is the case with many publicly held corporations, the possibility of a Change in Control exists and that such possibility, and the uncertainty and questions which it may raise among management, may result in the departure or distraction of management personnel to the detriment of the Company and its shareholders; and

WHEREAS, the Board has determined that appropriate steps should be taken to reinforce and encourage the continued attention and dedication of members of the Company's management, including the Executive, to their assigned duties without distraction in the face of potentially disturbing circumstances arising from the possibility of a Change in Control;

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the Company and the Executive hereby agree as follows:

1. Defined Terms. The definitions of capitalized terms used in this Agreement are provided in the last Section hereof.

2. Term of Agreement. The Term of this Agreement shall commence on the date hereof and shall continue in effect through December 31, **[ ]**; provided, however, that commencing on January 1, **[ ]** and each January 1 thereafter, the Term shall automatically be extended for one additional year unless, not later than September 30 of the preceding year, the Company or the Executive shall have given notice not to extend the Term; and further provided, however, that if a Change in Control shall have occurred during the Term, the Term shall expire no earlier than twenty-four (24) months beyond the month in which such Change in Control occurred.

3. Company's Covenants Summarized. In order to induce the Executive to remain in the employ of the Company and in consideration of the Executive's covenants set forth in Section 4 hereof, the Company agrees, under the conditions described herein, to pay the Executive the Severance Payments and the other payments and benefits described herein. Except as provided in Section 9.1 hereof, no Severance Payments shall be payable under this Agreement unless the Executive has a Separation from Service following a Change in Control and during the Term and such Separation from Service is described in the first sentence of Section 6.1. This Agreement shall not be construed as creating an express or implied contract of employment and, except as otherwise agreed in writing between the Executive and the Company, the Executive shall not have any right to be retained in the employ of the Company.

4. The Executive's Covenants. The Executive agrees that, subject to the terms and conditions of this Agreement, in the event of a Potential Change in Control during the Term, the Executive will remain in the employ of the Company until the earliest of (i) a date which is six (6) months from the date of such Potential Change of Control, (ii) the date of a Change in Control, (iii) the date of termination by the Executive of the Executive's employment for Good Reason or by reason of death, Disability or Retirement, or (iv) the termination by the Company of the Executive's employment for any reason.

5. Compensation Other Than Severance Payments.

5.1 Following a Change in Control and during the Term, during any period that the Executive fails to perform the Executive's full-time duties with the Company as a result of incapacity due to physical or mental

illness, the Company shall pay the Executive's full salary to the Executive at the rate in effect at the commencement of any such period, together with all compensation and benefits payable to the Executive under the terms of any compensation or benefit plan, program or arrangement maintained by the Company during such period, until the Executive's employment is terminated by the Company for Disability; provided, however, that the amounts received under this Section 5.1 shall be reduced by any amounts received by the Executive with respect to the same period of time under any long term disability plan of the Company. For the avoidance of doubt, payments pursuant to this Section 5.1 are contingent on the Executive's continued full-time employment until such time as (a) a Change in Control occurs during the Term, and (b) the Executive fails to perform full-time duties as a result of incapacity due to physical or mental illness, and are payable only for so long as the Executive continues to fail to perform full-time duties as a result of incapacity due to physical or mental illness or, if sooner, until the earlier of (i) the end of the Term, or
(ii) the Executive's employment is terminated by the Company for Disability.

5.2 For the Executive's services following a Change in Control and during the Term, the Company shall pay the Executive's full salary to the Executive through the Date of Termination at the rate in effect immediately prior to the Change in Control or, if higher, the rate in effect from time to time after the Change in Control and prior to any reduction thereof, together with all compensation and benefits payable to the Executive

through the Date of Termination under the terms of the Company's compensation and benefit plans, programs or arrangements as in effect immediately prior to the Change in Control or, if more favorable to the Executive, as in effect from time to time after the Change in Control and prior to any reduction thereof.

5.3 If the Executive has a Separation from Service following a Change in Control and during the Term, and such Separation from Service is (A) an involuntary Separation from Service (within the meaning of Treasury Regulation section 1.409A-1(n)(1)) by the Company other than for Cause or Disability, or (B) a Separation from Service by the Executive for Good Reason, the Company shall pay to the Executive after the Separation from Service the Executive's normal post-termination compensation and benefits as such payments become due. Such post-termination compensation and benefits shall be determined under, and paid in accordance with, the Company's retirement, insurance and other compensation or benefit plans, programs and arrangements as in effect immediately prior to the Date of Termination or, if more favorable to the Executive, as in effect immediately prior to any adverse change therein after the Change in Control; provided that nothing in this Section 5.3 shall alter the terms of any stock option or any equity-based award. Nothing herein shall reduce or

otherwise adversely affect any compensation and benefits to which the Executive may be entitled after Separation from Service under any of the Company's retirement, insurance and other compensation or benefit plans, programs and arrangements as in effect from time to time before or after a Change in Control.

5.4 In the event that a Change in Control occurs during the Term, (A) the Company shall, within five (5) days after such Change in Control, pay to the Executive a lump sum cash amount equal to the product of (i) the target annual bonus or incentive award applicable to the Executive under each of the Company's annual bonus or incentive compensation plans (such target award to be determined pursuant to the provisions of each such plan or, if no such provisions exist in the case of any such plan, as determined by the Compensation Committee of the Board, as constituted immediately prior to the Change in Control, in its sole discretion), in respect of the year in which such Change in Control occurs and (ii) a fraction, the numerator of which shall be the number of months (including fractions thereof) from the first day of the year in which the Change in Control occurs to the date on which the Change in Control occurs, unless the Change in Control occurs during the year in which the Executive's first day of employment by the Company occurs, in which case the numerator shall be the number of months (including fractions thereof) from the first day of employment by the Company to the date on which the Change in Control occurs, and the denominator of which shall be twelve (12); and (B) all options held by the Executive to acquire Company stock shall immediately become vested and exercisable in full, and all other Company stock- based awards held by the Executive shall vest and be paid at such time or times on or after the date on which such Change in Control occurs, and to such extent, as shall be set forth in the award agreement documenting such awards (it being understood and agreed that any stock-based award agreements will provide for vesting and payment of such awards in connection with a Change in Control at such time or times and on

such terms and conditions as the Committee deems advisable to comply with or qualify for an exclusion from Section 409A of the Code). The lump sum cash amount payable pursuant to Section 5.4(A) above shall be credited against any annual bonus or incentive award to which the Executive may be entitled for the year in which the Change in Control occurs pursuant to the Performance-Linked Bonus Plan for Selected Executive Officers or any other annual bonus or incentive plan in which the Executive participates in such year, provided that such annual bonus or incentive award qualifies (or will qualify) for treatment as a short-term deferral under Treasury Regulation section 1.409A-1(b)(4) or is otherwise not subject to Section 409A of the Code, it being the intention hereof that, between Section 5.4(A) above and any annual bonus or incentive award plan pursuant to which the Executive is entitled to an annual bonus or incentive award for the year in which the Change in Control occurs, the Executive will receive any annual bonus or incentive award to which the Executive may be entitled for the year in which the Change in Control occurs but not less than the lump sum cash amount payable pursuant to Section 5.4(A) above.

6. Severance Payments .

6.1 Subject to Section 6.2 and Section 12(B) hereof, if the Executive has a Separation from Service following a Change in Control and during the Term, and such Separation from Service is an involuntary Separation from Service (within the meaning of Treasury Regulation section 1.409A- 1(n)(1)) by the Company other than for Cause or Disability, or is a Separation from Service by the Executive for Good Reason, then the Company shall pay the Executive the amounts, and provide the Executive the benefits, described in this Section 6.1 ("Severance Payments"), in addition to any payments and benefits to which the Executive is entitled under Section 5 hereof. Notwithstanding the foregoing, the Executive shall not be eligible to receive any payment or benefit provided for in this Section 6.1 unless the Executive shall have executed and delivered to the Company within 45 days after the Separation from Service a release (substantially in the form of Exhibit A hereto) in favor of the Company and others set forth on said Exhibit A, relating to all claims or liabilities of any kind relating to the Executive's employment and termination of employment with the Company, and the Executive shall not have revoked such release within 7 days after executing it. Subject to Section 12(B) hereof, any payments and benefits that, but for the preceding sentence, may be paid or provided pursuant to the provisions below of this Section 6.1 before the 56 th day following the Separation from Service shall be paid or provided on the 56 th day following the Separation from Service, unless such payment or benefit may be paid or provided pursuant to the provisions below of this Section 6.1 within a designated period following the Separation from Service that ends more than 56 days following the Separation from Service, in which case such payment or benefit shall be paid or provided within the portion of such designated period that begins on the 56 th day following the Separation from Service and ends on the last day of such designated period, provided in each case that the Executive executed the release and delivered it to the Company within the aforementioned 45-day period and did not revoke the release within 7 days after executing it.

(A) Cash Severance Payments .

(i) The Company shall pay to the Executive an amount, in cash, equal to the severance pay to which the Executive would be entitled under the Barnes Group Inc. Executive Separation Pay Plan as amended on December 31, 2008 (the "Executive Separation Pay Plan") if the Separation from Service were a Separation from Service for which severance benefits were payable under that Plan and the provisions of Sections 4.3, 4.4 and 4.5 thereof did not apply. For the avoidance of doubt, the severance pay to which the Executive would be entitled if the Separation from Service were a Separation from Service for which severance benefits were payable under the Executive Separation Pay Plan and the provisions of Sections 4.3, 4.4 and 4.5 thereof did not apply is twelve months of base salary as in effect immediately prior to the Separation from Service. Such amount shall be paid at the same times at which it would be paid under the Executive Separation Pay Plan if the provisions of Sections 4.3, 4.4 and 4.5 thereof did not apply, and in the same installments. However, if the Separation from Service for which the amount described in this Section 6.1(A)(i) is payable takes place during the two years following the occurrence of a "change in control event" with respect to the Executive (within the meaning of Treasury Regulation section

1.409A- 3(i)(5)(i) & (ii)), then in that event the Company shall pay the Executive the aforementioned amount in a lump sum within five (5) days of such Separation from Service; and

(ii) The Company shall pay to the Executive within five (5) days of such Separation from Service a lump sum amount, in cash, equal to the excess of (a) over (b) where (a) is 2 times the sum of (I) the Executive's annual base salary as in effect immediately prior to the Separation from Service or, if higher, in effect immediately prior to any reduction thereof, and (II) the highest of (A) the average annual bonus earned by the Executive in respect of the three fiscal years ending immediately prior to the fiscal year in which occurs the Separation from Service, or, if the Executive was not employed by the Company throughout that three fiscal year period, the average annual bonus earned by the Executive in respect of the portion of such three fiscal year period during which the Executive was

employed by the Company (annualizing any bonus earned for less than a full fiscal year of employment), (B) the average annual bonus earned by the Executive in respect of the three fiscal years ending immediately prior to the fiscal year in which occurs the Change in Control, or, if the Executive was not employed by the Company throughout that three fiscal year period, the average annual bonus earned by the Executive in respect of the portion of such three fiscal year period during which the Executive was employed by the Company (annualizing any bonus earned for less than a full fiscal year of employment), or (C) the target bonus in respect of the fiscal year in which occurs the Separation from Service, and
(b) is the amount payable pursuant to Section 6.1(A)(i) above.

(B) Pro - Rata Bonus for Year of Termination . Within five (5) days of such Separation from Service, the Company shall pay to the Executive a lump sum cash amount (the "Pro-Rata Bonus") equal to the product of (i) the target annual bonus or incentive award applicable to the Executive under each of the Company's annual bonus or incentive compensation plans (such target award to be determined pursuant to the provisions of each such plan or, if no such provisions exist in the case of any such plan, as determined by the Board in its sole discretion), in respect of the year in which such Separation from Service occurs and (ii) a fraction, the numerator of which shall be the number of months (including fractions thereof) from the first day of the year during which such Separation from Service occurs to the date on which such Separation from Service occurs, unless the Separation from Service occurs during the year in which the Executive's first day of employment by the Company occurs, in which case the numerator shall be the number of months (including fractions thereof) from the first day of employment by the Company to the date on which the Separation from Service occurs, and the denominator of which shall be twelve (12); provided , however , that if such Separation from Service occurs during the same year in which the Change in Control occurs, the Pro Rata Bonus shall be offset by any payments received by the Executive pursuant to Section 5.4(A) hereof.

(C) Vesting of Unvested Non- Qualified Plan Accruals Prior to the Date of Termination . If the Executive was participating immediately prior to the Date of Termination or the Change in Control in any of the Company's non-qualified employee pension benefit plans (including without limitation the Company's Supplemental Senior Officer Retirement Plan and Supplemental Executive Retirement Plan and any non- qualified defined contribution employee pension benefit plan but excluding any severance pay plan) and on the Date of Termination was not fully vested in benefits accrued through the Date of Termination under any such plan in which s/he was so participating, then the Executive shall be entitled to receive pursuant to this Section 6.1(C) benefits equal to the benefits accrued by the Executive under those plans prior to the Date of Termination that are not vested on that date that would vest under those plans if the Executive's age and service credit for vesting purposes were equal to the Executive's age and service credit as calculated under the provisions of such plans as of the Date of Termination plus 24 months. The intent of this provision is to give the Executive 24 months of age and service credit for vesting under such non-qualified employee pension benefit plans in excess of the Executive's actual age and service credit as of the Date of Termination as determined under such plans, if and to the extent that such plans do not otherwise give the Executive age and service credit for vesting for the 24 month period following the Date of Termination. Any benefits resulting from the additional age and service credit for vesting provided hereby shall be payable at the time and in the form of payment applicable to the Executive's benefits under the non-qualified employee pension benefit plan(s) in question, and to the person or persons (e.g., surviving

spouse under a joint and survivor annuity form of payment) to whom such benefits would be paid under such plan(s). For the avoidance of doubt, any benefits payable pursuant to the foregoing provisions of this Section 6.1(C) in respect of the Executive's unvested benefits under the Supplemental Senior Officer Retirement Plan shall be payable at the time and in the form of payment that would apply if such benefits were payable under the Supplemental Senior Officer Retirement Plan, and to the person or persons to whom such benefits would be paid

thereunder, any benefits payable pursuant to the foregoing provisions of this Section 6.1(C) in respect of the Executive's unvested benefits under the Supplemental Executive Retirement Plan shall be payable at the time and in the form of payment that would apply if such benefits were payable under the Supplemental Executive Retirement Plan, and to the person or persons to whom such benefits would be paid thereunder, and so on.

(D) Payments in Respect of Unvested Qualified Defined Benefit Plan Accruals Prior to the Date of Termination . If the Executive was participating immediately prior to the Date of Termination or the Change in Control in any of the Company's qualified defined benefit employee pension benefit plans (including without limitation the Company's Salaried Retirement Income Plan)("Qualified Plan") and on the Date of Termination was not fully vested in benefits accrued through the Date of Termination under any such plan in which s/he was so participating, then the Executive shall be entitled to receive pursuant to this Section 6.1(D) benefits equal to the benefits accrued by the Executive under those plans prior to the Date of Termination that are not vested on that date that would vest under those plans if the Executive's age and service credit for vesting purposes were equal to the Executive's age and service credit as calculated under the provisions of such plans as of the Date of Termination plus 24 months. The intent of this provision is to provide the Executive with benefits equivalent to the benefits accrued prior to the Date of Termination under any Qualified Plan which would vest with 24 months of age and service credit for vesting under such qualified defined benefit employee pension benefit plans in excess of the Executive's actual age and service credit as of the Date of Termination as determined under such plans, if and to the extent that such plans do not otherwise give the Executive age and service credit for vesting for the 24 month period following the Date of Termination, and provided that the Executive survives to the payment date set forth in the next sentence. Any benefits resulting from the additional age and service credit for vesting provided by the preceding provisions of this Section 6.1(D) shall be paid in an actuarial equivalent lump sum on March 1 of the calendar year following the calendar year in which the Date of Termination occurs, but only if the Executive survives to that March 1 date. Nothing herein shall alter any Qualified Plan or any rights the Executive may have under any Qualified Plan.

(E) Payments in Respect of Unvested Account Balances as of the Date of Termination under Qualified Defined Contribution Plans . If the Executive was participating immediately prior to the Date of Termination or the Change in Control in any of the Company's qualified defined contribution employee pension benefit plans (including without limitation a 401(k) plan or a qualified profit-sharing plan) and on the Date of Termination was not fully vested in any amount (including without limitation investment gains and losses) that had been credited to the Executive through the Date of Termination (the "Unvested Account Balance") under any such plan in which s/he was so participating, then, on March 1 of the calendar year following the calendar year in which the Date of Termination occurs, the Company shall pay the Executive, if s/he is then surviving, an amount equal to the portion of the Unvested Account Balance that would vest during the 24 month period following the Date of Termination (and that will not in fact vest under the qualified defined contribution plan in question), if such plan were to remain in effect during such 24 month period and the Executive were able to and did continue to earn age credit and service credit for vesting purposes under such plan until the last day of such 24 month period. However, the Company shall not pay an amount pursuant to the preceding sentence equal to any portion of the Executive's Unvested Account Balance under a 401(k) plan that is attributable to (i) the Executive's elective contributions (as defined in Treasury Regulation 1.401(k)-6) under that plan, or to (ii) employer contributions that were conditioned (directly or indirectly) upon the Executive's electing to

make or not to make elective contributions under that plan, or to

(iii) income, expenses, gains and losses on such elective contributions and employer contributions, (such amount being hereafter referred to as a "Potentially Contingent Amount") unless the Executive made the maximum elective deferrals under Section 402(g) of the Code or the maximum elective contributions

permitted under the terms of such 401(k) plan (a) in the year(s) in which the Executive made such elective contributions, or in the year(s) (if any) in which such employer contributions were conditioned upon the Executive's electing to make or not to make elective contributions under that plan, or (b) in such other or additional year(s) (or other period(s)) as may be necessary for the Potentially Contingent Amount to not be treated as contingent for purposes of Treasury Regulation 1.401(k)-1(e)(6) by reason of the application of the second sentence of Treasury Regulation 1.401(k)-1(e)(6)(iii). The intent of this provision is to pay the Executive an amount equal to the portion of the Unvested Account Balance that, disregarding any investment gains or losses and any plan amendment or termination that may occur after the Date of Termination, would vest if the Executive were able to and did continue to earn age credit and vesting service credit under the qualified defined contribution plan in question during the 24 month period following the Date of Termination, provided that the Executive survives to the March 1 payment date set forth above in this Section 6.1(E) and, in the case of any Unvested Account Balance in a 401(k) plan, provided that the exclusion from the contingent benefit rule set forth in Treasury Regulation section 1.401(k)-1(e)(6) for deferred compensation that is dependent on an employee's having made the maximum elective deferrals under Code section 402(g) or the maximum elective contributions permitted under the terms of the plan is satisfied. Nothing herein shall alter any qualified defined contribution employee pension benefit plan or any rights the Executive may have under any such plan.

(F) Defined Benefit Plan Accruals for 24 Months After Date of Termination .

(i) If the Executive was participating immediately prior to the Date of Termination or the Change in Control in any of the Company's qualified or non-qualified defined benefit employee pension benefit plans (including without limitation the Company's Salaried Retirement Income Plan, Supplemental Senior Officer Retirement Plan and Supplemental Executive Retirement Plan but excluding any severance pay plan), then, on March 1 of the calendar year following the calendar year in which the Date of Termination occurs, the Company shall pay the Executive, if s/he is then surviving, a lump sum amount which is actuarially equivalent to the vested benefits which the Executive would accrue during the 24 month period following the calendar year in which the Date of Termination

occurs under the qualified and non-qualified defined benefit employee pension benefit plans in which the Executive was participating immediately prior to the Separation from Service or, if more favorable to the Executive, immediately prior to the Change in Control (the "Relevant Plans"), if -- (a) the Relevant Plans were to remain in effect during such 24 month period and the Executive were able to and did continue to earn age credit, service credit and compensation credit for benefit accrual and vesting purposes under such plans during such 24 month period (in addition to the Executive's age, service credit and compensation credit through the Date of Termination), and (b) the Executive's compensation for purposes of those plans for the year in which the Change in Control occurred included, if and to the extent it is not otherwise included (but only if and to the extent that bonuses are pensionable pursuant to those plans) a bonus in the amount payable pursuant to Section 5.4(A) hereof earned and paid ratably over the portion of that year that precedes the Change in Control, or if the Change in Control occurred during the year in which the Executive's first day of employment by the Company occurred, earned and paid ratably over the period from the Executive's first day of employment by the Company to the date on which the Change in Control occurred, and (c) the Executive's compensation for purposes of those plans for the year in which the Date of Termination occurs included, if and to the extent it is not otherwise included (but only if and to the extent that bonuses are pensionable pursuant to those plans) a bonus in the amount payable pursuant to Section 6.1(B) hereof earned and paid ratably over the portion of the year in which the Date of Termination occurs that precedes the Date of Termination, or if the Date of Termination occurs during the year in which the Change in Control occurred, earned and paid ratably over the period from the date on which the Change in Control occurred to the Date of Termination, and (d) the Executive's compensation during the 24 month period in question for purposes of those plans consisted of salary equal to 2 times the amount referred to in Section 6.1(A)(ii)(a)(I) hereof earned and paid ratably over that 24 month period and (if and to the extent that bonuses are pensionable pursuant to those plans) a bonus equal to 2 times the amount referred to in Section 6.1(A)(ii)(a)(II) hereof earned and paid ratably

over that 24 month period. Actuarial equivalence shall be determined using the actuarial factors and assumptions applicable to the plan in question.

(ii) In calculating the vested benefits which the Executive would accrue during the 24 month period following the calendar year in which the Date of Termination occurs under the Company's Supplemental Senior Officer Retirement Plan ("SSORP") pursuant to Section 6.1(F)(i) above, the offset for Qualified Plan benefits under the SSORP shall take into account (as if they were payable under the Qualified Plan) any benefits payable pursuant to this Section 6.1(F) in respect of Qualified Plan benefits. "Qualified Plan" as used in this Section 6.1(F) shall have the same meaning as in the SSORP. The intent of the preceding provisions of this Section 6.1(F)(ii) is to ensure that the Qualified Plan benefits that are offset in determining the SSORP benefits that would be accrued during the 24 month period following the calendar year in which the Date of Termination occurs pursuant to Section 6.1(F)(i) above take into account the Executive's Qualified Plan benefits as enhanced by the benefits payable in respect of the Qualified Plan pursuant to this Section 6.1(F).

(iii) In calculating the vested benefits which the Executive would accrue during the 24 month period following the calendar year in which the Date of Termination occurs under the Company's Supplemental Executive Retirement Plan ("SERP") pursuant to Section 6.1(F)(i) above, any benefits payable pursuant to this Section 6.1(F) in respect of the Qualified Plan, the Retirement Benefit
Equalization Plan ("RBEP") or the SSORP shall be taken into account. The intent of the preceding sentence is to ensure that the vested SERP benefits that would be accrued during the 24 month period following the calendar year in which the Date of Termination occurs pursuant to Section 6.1(F)(i) above are based on the Executive's Qualified Plan benefits, RBEP benefits and SSORP benefits as enhanced by the benefits payable in respect of those plans pursuant to this Section 6.1(F).

(G) Defined Contribution Plan Accruals for 24 Months After Date of Termination . If the Executive was participating immediately prior to the Date of Termination or the Change in Control in any of the Company's qualified or non-qualified defined contribution employee pension benefit plans (including without

limitation a 401(k) plan or a qualified profit-sharing plan), then, on March 1 of the calendar year following the calendar year in which the Date of Termination occurs, the Company shall pay the Executive, if s/he is then surviving, an amount equal to the employer contributions (if any) that would have been credited to the Executive and would have vested during the 24 month period following the Date of Termination (but are not so credited or vested) under any qualified or non-qualified defined contribution employee pension benefit plan in which the Executive was participating immediately prior to the Date of Termination or, if more favorable to the Executive, immediately prior to the Change in Control, if (i) the Executive were able to and did continue to earn age credit, service credit and compensation credit for benefit accrual and vesting purposes under such plan during that 24 month period, and (ii) the Executive's compensation during the 24 month period following the Date of Termination for purposes of that plan consisted of salary equal to 2 times the amount referred to in Section 6.1(A)(ii)(a)(I) hereof earned and paid ratably over that 24 month period and bonus (if and to the extent that bonuses are eligible for employer contributions under such plan) equal to 2 times the amount referred to in Section 6.1(A)(ii)(a)(II) hereof earned and paid ratably over that 24 month period, and (iii) in the case of any contributory defined contribution employee pension benefit plan such as a 401(k) plan, the Executive were able to and did contribute the maximum matchable employee contributions to the plan during the 24 month period after the Date of Termination, and (iv) the same employer contributions were made to the plan during that 24 month period as a percentage of Compensation and, in the case of a contributory plan, as a percentage of employee contributions, as were made in respect of the last full plan year preceding the Date of Termination or, if more favorable to the Executive, preceding the Change in Control, and (v) the same qualified plan limits on compensation, contributions and benefits that applied in respect of such last full plan year continued to apply during the 24 months following the Date of Termination. No payment shall be made pursuant to the preceding sentence in respect of the employer contributions that would have been credited to the Executive and would have vested under a 401(k) plan unless the Executive

made the maximum elective deferrals under Section 402(g) of the Code or the maximum elective contributions permitted under the terms of the

401(k) plan in which the Executive was participating immediately prior to the Date of Termination or, if more favorable to the Executive, immediately prior to the Change in Control, in the year in which the Date of Termination occurs (or in such portion of such year as will result in the payment being not treated as contingent pursuant to the second sentence of Treasury Regulation 1.401(k)-1(e)(6)(iii)) or, if the 401(k) plan in which the Executive was participating immediately prior to the Change in Control was more favorable to the Executive than the 401(k) plan in which the Executive was participating immediately prior to the Date of Termination, in the year in which the Change in Control occurred. The preceding sentence is intended to apply only if and to the extent the preceding sentence is necessary to comply with the contingent benefit rule set forth in Treasury Regulation section 1.401(k)-1(e)(6), and it shall be administered, interpreted and construed accordingly.

(H) Perquisite Allowance. If immediately prior to the Date of Termination or the Change in Control the Company was paying the Executive a cash allowance in lieu of a company-provided car, cell phone usage, club membership or other perquisites (a "Perquisite Allowance"), then, on March 1 of the calendar year following the calendar year in which the Date of Termination occurs, the Company shall pay the Executive, if s/he is then surviving, an amount equal to 24 times the average monthly Perquisite Allowance the Company was paying the Executive immediately prior to the Date of Termination or, if more favorable to the Executive, immediately prior to the Change in Control.

(I) Health Care Benefits. For the twenty-four month period immediately following the Date of Termination or until the earlier death of the Executive (the "Benefits Period"), the Company shall continue to provide the Executive with the same medical and dental coverage which the Executive was receiving immediately prior to the Date of Termination or, if more favorable to the Executive, immediately prior to the Change in Control (the "Health Care Benefits"). For the avoidance of doubt, the Company shall pay or reimburse the Executive for the same medical and dental expenses which were subject to payment or reimbursement under the medical and dental insurance coverage which the Executive was receiving immediately prior to the Date of Termination or, if more favorable to the Executive, immediately prior to the Change in Control. The Health Care Benefits shall be provided in such a manner that such benefits will be excluded from the Executive's income for federal income tax purposes. The receipt of the Health Care Benefits shall be conditioned on the Executive continuing to pay the applicable premiums for such Health Care Benefits during the Benefits Period. The applicable monthly premium shall be the monthly COBRA premium as in effect at the Company from time to time with respect to the coverage provided under Section 4980B of the Code. Except as permitted by Treasury Regulation section 1.409A-3(i)(4)(B), the amount of medical and dental expenses that are subject to
Section 409A of the Code and not excluded therefrom as involuntary separation pay or otherwise and that are subject to reimbursement pursuant to this Section 6.1(I) during any taxable year of the Executive may not affect the expenses eligible for reimbursement in any other taxable year, and shall be reimbursed at the time required by the plan applicable to the Executive immediately prior to the Date of Termination or, if more favorable to the Executive, immediately prior to the Change in Control but in no event later than the last day of the Executive's taxable year following the taxable year in which the expense was incurred.

(J) Additional Payments. During the Benefits Period, and subject to Section 12(B) below (relating to the six month delay applicable to Specified Employees), the Company shall pay to the Executive an amount equal to the monthly premium cost set forth in Section 6.1(I) above, minus an amount equal to the monthly employee contribution rate that is paid by Company employees for the applicable level of such coverage immediately prior to the Date of Termination or, if more favorable to the Executive, immediately prior to the Change in Control, which payment shall be paid in advance on the first payroll day of each month, commencing with the first such payroll day that coincides with or next follows the Date of Termination. Each month, when the Company pays the amount required by the preceding sentence, the Company shall also pay the Executive a tax gross-up on the amount paid pursuant to the preceding sentence, i.e., an amount sufficient after taxes on the tax gross-up paid pursuant to this sentence to reimburse the Executive for any Federal, state, local or foreign taxes imposed upon the Executive as a result of the Company's payment of the amount required by the preceding sentence. For purposes of determining the amount of the tax gross-up

to be paid pursuant to this Section 6.1(J) or pursuant to any other provision of this Agreement or any other plan or arrangement pursuant to which the Executive is entitled to receive a tax gross-up after a Change in Control and during the Term, the Executive shall notify the Company from time to time of the highest effective marginal rates at which the Executive's income is taxed under any applicable Federal, state, local and foreign laws and such rates shall be conclusive on the Company for purposes of determining the amount of the tax gross-up to be paid, and in no event shall the Executive be required to disclose his tax returns to the Company or otherwise for the purpose of determining the amount of the tax gross-up to be paid.

(K) SEELIP Benefits. If the Executive was a participant in the Company's Senior Executive Enhanced Life Insurance Program immediately prior to the Date of Termination or the Change in Control, then during the Benefits Period the Company shall provide the Executive with the same benefits, if any, under the Company's Senior Executive Enhanced Life Insurance Program as in effect immediately prior to the Separation from Service or, if more favorable to the Executive, immediately prior to the Change in Control (the "SEELIP"), at

the same times, that the Company would have provided if the SEELIP had remained in effect and the Executive's active employment and participation in the SEELIP had continued (and no Separation from Service had occurred) until the end of the Benefits Period and the Executive's annual base salary during the Benefits Period for purposes of the SEELIP had been equal to the amount referred to in
Section 6.1(A)(ii)(a)(I) hereof. In no event shall this Section 6.1(K) entitle the Executive to benefits that duplicate any SEELIP benefits that the Executive is entitled to receive at the same time other than pursuant to this Section (K). If any premiums or other "Reimbursements" (as such term is defined in the SEELIP as amended in December 2008) that would be payable by the Company pursuant to the preceding provisions of this Section 6.1(K) during the six month period following the Separation from Service are not paid during that six month period due to the six month delay imposed by Section 12(B) hereof, then (i) the Company shall timely provide the Executive with the opportunity to pay the SEELIP premiums during that six month period and, if the Executive chooses to do so, the Company shall cooperate as needed to enable the Executive to do so, and (ii) at the time provided by Section 12(B) hereof (i.e., the first day of the seventh month following the Separation from Service) the Company shall pay such premiums or other Reimbursements in accordance with the SEELIP. Premiums and other Reimbursements eligible for reimbursement pursuant to the preceding provisions of this Section 6.1(K) during the Executive's taxable year may not affect the premiums and other Reimbursements eligible for reimbursement in any other taxable year, and any in-kind benefits provided pursuant to this Section 6.1(K) or otherwise during a taxable year of the Executive may not affect the in-kind benefits to be provided pursuant to this Section 6.1(K) or otherwise in any other taxable year. For the avoidance of doubt, in accordance with the SEELIP,
(a) all income taxes that are attributable to the premiums that are required to be paid by the Company during the Benefits Period pursuant to the preceding provisions of this Section 6.1(K) shall be fully grossed up by the Company, and (b) such tax gross ups shall be paid in the calendar year in which the Company pays the related premiums and, in the case of premiums paid in the last calendar year that commences during the Benefits Period, may be paid during the portion of that last calendar year that falls after the Benefits Period).

(L) Death and Disability Benefits. During the Benefits Period, the Company shall cause the Executive to continue to participate in all death benefit plans (other than the SEELIP, which is already addressed above) and disability benefit plans in which the Executive was participating immediately prior to the Separation from Service or, if more favorable to the Executive, immediately prior to the Change in Control; provided that to the extent such participation in any such plan is barred or otherwise not feasible, the Company shall arrange to provide substantially similar benefits to the Executive (and, if applicable, the Executive's dependents) outside such plan.

(M) Tax - Free Benefits. If immediately prior to the Date of Termination or the Change in Control the Executive was participating in any welfare benefit plan or perquisite plan not addressed above (including without limitation the Executive Health Exams Policy), and during the Benefits Period benefits may be provided to the Executive under such plan as in effect immediately prior to the Separation from Service or, if more favorable to the Executive, immediately prior to the Change in Control, (or may be provided to the

Executive outside of such plan), that would be excludable from income when and if received, then the Company shall continue to provide such benefits to the Executive during the Benefits Period.

(N) In- Kind Benefit and Reimbursement Plans and Tax Gross - Ups. If immediately prior to the Separation from Service or the Change in Control the Executive was receiving in-kind benefits within the meaning of Treasury Regulation section 1.409A-1(p) or reimbursements pursuant to any Company plan not addressed above in this Section 6.1, other than reimbursements of direct business expenses (such as automobile mileage and travel, entertainment and other business expenses), or was receiving tax gross-ups within the meaning of Treasury Regulation 1.409A-3(i)(1)(v) under any Company plan not addressed above in this Section 6.1, then in accordance with such plan (other than continued service requirements) as in effect immediately prior to the Separation from Service or, if more favorable to the Executive, immediately prior to the Change in Control, the Executive shall continue to receive in-kind benefits, and reimbursements for expenses incurred, during the Benefits Period and to receive tax gross-ups for taxes incurred during the Benefits Period; provided that, with respect to any such in-kind benefits and reimbursements, other than reimbursements that pursuant to Treasury Regulation section 1.409A-1(b)(9)(v) or otherwise do not provide for a deferral of compensation that is subject to Section 409A of the Code, the amount of expenses eligible for reimbursement, or in-kind benefits provided, during the Executive's taxable year may not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year (within the meaning of Treasury Regulation 1.409A-3(i)(1)(iv)), and the reimbursement of an eligible expense shall be made on or before (a) the last day of the Executive's taxable year following the taxable year in which the expense was incurred, or (b) such earlier date as the reimbursement plan may require, and any such tax gross-up shall be paid by the end of the Executive's taxable year next following the Executive's taxable year in which the Executive remits the related taxes or by such earlier date as the plan which provides for such tax gross-up may require. For the avoidance of doubt, for purposes of this agreement the term "plan" shall include the Company's perquisite policies (including, without limitation, the Financial Planning Assistance Policy) and any other "plan" as defined in Treasury Regulation section 1.409A-1(c)(1).

(O) Other Welfare Plans, Benefits and Perquisites. If immediately prior to the Date of Termination or the Change in Control the Executive participated in any welfare benefit plan not addressed above (other than a severance pay plan) or was receiving benefits or perquisites not addressed above, and the Executive is not otherwise entitled to participate in such welfare benefit plan or to receive such benefits or perquisites during the Benefits Period, then during the Benefits Period the Executive shall continue to participate in the welfare benefit plan in which s/he was participating or to receive the benefits or perquisites s/he was receiving immediately prior to the Date of Termination or, if more favorable to the Executive, immediately prior to the Change in Control, in accordance with the terms of such welfare benefit plan or plan providing such benefits or perquisites (other than continued service requirements); provided that if the Executive's continued participation in such welfare benefit plan or in the plan providing such benefits or perquisites is barred or otherwise not feasible,

the Company shall provide such benefits outside the plan; and, provided further, that this sentence shall not apply if and to the extent that any payments to be made and benefits to be provided pursuant to this sentence would not qualify for an exclusion from Section 409A of the Code (including without

limitation an exclusion provided by Treasury Regulation section 1.409A-1(b)(9)) or comply with Section 409A of the Code.

Neither the Company nor any Affiliate shall be required by any of the foregoing provisions of this Section 6.1 to grant stock options or other stock- based awards to the Executive after the Date of Termination. Benefits receivable by the Executive pursuant to Sections 6.1(F) through (O) hereof shall be forfeited to the extent benefits of the same type are made available to the Executive during the twenty-four (24) month period following the Date of Termination, other than by the Company or an Affiliate, in connection with the Executive's performance of services for an enterprise (including without limitation a non-profit enterprise) not affiliated with the Company (and any such benefits made available to the Executive shall be reported to the Company by the Executive). In the event that payment is made pursuant to Section 6.1(F), 6.1(G) or 6.1(H) hereof and benefits of the same type are thereafter made available to the Executive during the twenty-four (24) month period following the Date of Termination, other than by the Company or an Affiliate, in connection with the Executive's

performance of services for an enterprise not affiliated with the Company, the Executive shall repay to the Company the portion of the payment previously made in respect of benefits of the same type, that corresponds to the portion of the 24 month period during which benefits of the same type are so made available to the Executive. For the avoidance of doubt, if any of the perquisites in lieu of which a Perquisite Allowance is paid pursuant to Section 6.1(H) hereof are made available to the Executive during the twenty-four (24) month period following the Date of Termination, other than by the Company or an Affiliate, in connection with the Executive's performance of services for an enterprise not affiliated with the Company, and repayment is required pursuant to the preceding sentence, the Perquisite Allowance shall be allocated among the perquisites in lieu of which it was paid in a reasonable manner such that repayment is required only of the portion of the Perquisite Allowance that is reasonably allocable to the perquisite(s) that are so made available to the Executive.

6.2 (A) Notwithstanding any other provisions of this Agreement, in the event that any payment or benefit received or to be received by the Executive in connection with a Change in Control or the termination of the Executive's employment (whether pursuant to the terms of this Agreement or any other plan, arrangement or agreement with the Company, any Person whose actions result in a Change in Control or any Person affiliated with the Company or such Person) (all such payments and benefits, including the Severance Payments, being hereinafter called "Total Payments") would be subject (in whole or part), to the Excise Tax, then, the Total Payments shall be reduced in the following order: (i) cash payments that are not deferred compensation subject to Section 409A of the Code, (ii) non-cash payments and benefits, other than payments pursuant to Section 5.4(B) above, that are not deferred compensation subject to Section 409A of the Code, (iii) the payments pursuant to
Section 5.4(B) above that are not deferred compensation subject to Section 409A of the Code, (iv) cash payments that are deferred compensation subject to Section 409A of the Code, (v) non-cash payments and benefits, other than payments pursuant to Section 5.4(B) above, that are deferred compensation subject to Section 409A of the Code, and (vi) the payments pursuant to Section 5.4(B) above that are deferred compensation subject to Section 409A of the Code, to the extent necessary so that no portion of the Total Payments is subject to the Excise Tax, but only if (A) is greater than or equal to (B), where (A) equals the reduced amount of such Total Payments minus the aggregate amount of federal, state and local income taxes on such reduced Total Payments and (B) equals the unreduced amount of such Total Payments minus the sum of (1) the aggregate amount of federal, state and local income taxes on such Total Payments and (2) the amount of Excise Tax to which the Executive would be subject in respect of such unreduced Total Payments; provided , however , that within each of the foregoing categories (i) through (vi) the first payment or benefit to be reduced shall be the payment or benefit the highest percentage of which is included in the aggregate present value of all payments in the nature of compensation to or for the benefit of the Executive that are contingent on the change in ownership or control within the meaning of Treasury Regulation 1.280G-1 (i.e., is included in such aggregate present value for purposes of determining whether such aggregate present value equals or exceeds 3 times the Executive's base amount), and the last payment or benefit to be reduced shall be the payment or benefit the lowest percentage of which is included in such aggregate present value, and, provided further , that the Executive may elect to change the order in which any of the payments or benefits in categories (i), (ii) and (iii) is reduced as long as both payments and benefits being changed (I) are short-term deferrals within the meaning of Treasury Regulation section 1.409A-1(b)(4) the "applicable 2 1 / 2 month period" of which (within the meaning of that Treasury Regulation) end on the same date, or (II) are not short-term deferrals but are otherwise not deferred compensation subject to Section 409A of the Code (whether due to Treasury Regulation section 1.409A-1(b)(9) or otherwise), and as long as such change in order does not affect the time at which any payment that constitutes deferred compensation that is subject to Section 409A of the Code would be reduced or the amount by which any payment that constitutes deferred compensation that is subject to Section 409A of the Code would be reduced at any time.

(B) For purposes of determining whether and the extent to which the Total Payments will be subject to the Excise Tax, (i) no portion of the Total Payments the receipt or enjoyment of which the Executive shall have waived at such time and in such manner as not to constitute a "payment" within the meaning of section 280G(b) of the Code shall be taken into account, (ii) no portion of the Total Payments shall be taken into account which, in the opinion of tax counsel ("Tax Counsel") reasonably acceptable to the Executive and selected by the accounting firm (the "Auditor") which was, immediately prior to the Change in Control, the

Company's independent auditor, does not constitute a "parachute payment" within the meaning of section 280G(b)(2) of the Code (including

by reason of section 280G(b)(4)(A) of the Code) and, in calculating the Excise Tax, no portion of such Total Payments shall be taken into account which, in the opinion of Tax Counsel, constitutes reasonable compensation for services actually rendered, within the meaning of section 280G(b)(4)(B) of the Code, in excess of the Base Amount allocable to such reasonable compensation, and (iii) the value of any non- cash benefit or any deferred payment or benefit included in the Total Payments shall be determined by the Auditor in accordance with the principles of sections 280G(d)(3) and (4) of the Code.

(C) At the time that payments are made under this Agreement, the Company shall provide the Executive with a written statement setting forth the manner in which such payments were calculated and the basis for such calculations including, without limitation, any opinions or other advice the Company has received from Tax Counsel, the Auditor or other advisors or consultants (and any such opinions or advice which are in writing shall be attached to the statement).

6.3 The payments provided in subsections (A)(ii) and (B) of Section 6.1 hereof and, if applicable, the last sentence of subsection (A)(i) of Section 6.1

hereof, shall be made on the fifth (5th) day following the Separation from Service or, if such 5th day is a weekend or a holiday, on the next business day; provided, however, that if the amounts of such payments, and the limitation on such payments set forth in Section 6.2 hereof, cannot be finally determined on or before such day, the Company shall pay to the Executive on such day an estimate, as determined in good faith by the Company of the minimum amount of such payments to which the Executive is clearly entitled and shall pay the remainder of such payments (together with interest on the unpaid remainder (or on all such payments to the extent the Company fails to make such payments when due) at 120% of the rate provided in section 1274(b)(2)(B) of the Code) as soon as the amount thereof can be determined but in no event later than the thirtieth (30th) day after the Separation from Service. In the event that the amount of the estimated payments exceeds the amount subsequently determined to have been due, such excess shall constitute a loan by the Company to the Executive, payable on the fifth (5th) business day after demand by the Company (together with interest at 120% of the rate provided in section 1274(b)(2)(B) of the Code).

7. Termination Procedures and Compensation During Dispute.

7.1 Notice of Termination. After a Change in Control and during the Term, any termination of the Executive's employment (other than by reason of death) shall be communicated by written Notice of Termination from one party hereto to the other party hereto in accordance with Section 10 hereof. For purposes of this Agreement, a "Notice of Termination" shall mean a notice which shall indicate the specific termination provision in this Agreement relied upon and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated. Further, a Notice of Termination for Cause is required to include a copy of a resolution duly adopted by the affirmative vote of not less than three-quarters (3/4) of the entire membership of the Board at a meeting of the Board which was called and held for the purpose of considering such termination (after reasonable notice to the Executive and an opportunity for the Executive, together with the Executive's counsel, to be heard before the Board) finding that, in the good faith opinion of the Board, the Executive was guilty of conduct set forth in clause (i) or (ii) of the definition of Cause herein, and specifying the particulars thereof in detail. In the event of an involuntary Separation from Service (within the meaning of Treasury Regulation section 1.409A-1(n)(1)) by the Company other than for Cause or Disability following a Change in Control and during the Term, the Company will provide the Executive with a Notice of Termination at least thirty (30) days in advance of the Date of Termination and, if it fails to do so, will pay the Executive's salary in lieu of notice on the Date of Termination or within ten (10) days thereafter, in addition to all other amounts payable to the Executive hereunder. In the event of a Separation from Service by the Executive following a Change in Control and during the Term, the Executive will provide the Company with a Notice of Termination at least fifteen (15) days and not more than sixty (60) days in advance of the Date of Termination.

7.2 Date of Termination. "Date of Termination" means the date on which the Executive has a Separation from Service.

7.3 Certain Disputes Concerning Termination.

If the Executive has a Separation from Service following a Change in Control and during the Term, and such Separation from Service is (a) an involuntary Separation from Service (within the meaning of Treasury Regulation section 1.409A-1(n)(1)) by the Company other than for Cause or Disability, or (b) a Separation from Service by the Executive for Good Reason, and, in the case of (a), the Company disputes by its Notice of Termination or otherwise (including without limitation by its conduct or inaction) that the Executive has had an involuntary Separation from Service (within the meaning of Treasury Regulation section 1.409A-1(n)(1)) by the Company other than for Cause or Disability, or, in the case of (b), the Company disputes by written notice or otherwise (including without limitation by its conduct or inaction) that the Executive has had a Separation from Service for Good Reason, and the Executive pursues the resolution of such dispute with reasonable diligence, then in that event during the period from the Date of Termination until the earlier of (i) the date on which the Term ends, or (ii) the date on which the dispute is finally resolved, either by mutual written agreement of the parties or by a final judgment, order or decree of an arbitrator (the "Continuation Period"), the Company shall continue to pay the Executive the salary at the rate in effect immediately prior to the Date of Termination, on the same payroll schedule that was in effect immediately prior to the Date of Termination, and shall pay the Executive on the first business day of each calendar month during the Continuation Period a bonus amount equal to one-twelfth of the amount described in Section 6.1(A)(ii)(a)(II) above, and shall pay the Executive at the end of each calendar month that ends during the Continuation Period a lump sum amount that is actuarially equivalent to the additional vested pension benefits the Executive would have accrued during such month under any qualified and non-qualified defined benefit employee pension benefit plans in which the Executive was participating immediately prior to the Date of Termination if the Executive had been able to and did continue to earn age credit, service credit for benefit accrual and vesting and compensation credit (based on the salary and

bonus amounts paid through the end of such month pursuant to this sentence) during such month and all prior months during the Continuation Period under such plans (in addition to the Executive's age, service credit and compensation credit under such plans through the Date of Termination and in addition to the 24 months of age credit, service credit and compensation credit referred to in Section 6.1(F) above), and shall continue to provide the Executive with the Perquisite Allowance, if any, that it was providing the Executive immediately prior to the Date of Termination, on the same schedule, and shall make monthly payments on the first payroll day of each month, commencing with the first such payroll day that coincides with or next follows the Date of Termination, equal to the monthly payments the Company is obligated to provide pursuant to Section 6.1(J) above. In addition, for a period immediately following the Benefits Period equal to the length of the Continuation Period,
(A) the Company shall continue to provide the Executive with the Health Care Benefits described in Section 6.1(I) above, (B) the Company shall provide the Executive with the same benefits, if any, under the SEELIP, at the same times , that the Company would have provided if the SEELIP had remained in effect and the Executive's active employment and participation in the SEELIP had continued (and no Separation from Service had occurred) until the end of the period immediately following the Benefits Period equal to the length of the Continuation Period and the Executive's annual base salary during that period for purposes of the SEELIP had been equal to the Executive's annual base salary as in effect immediately prior to the Separation from Service or, if higher, in effect immediately prior to any reduction thereof, and (C) the Company shall continue to provide the Executive with the death and disability coverage described in Section 6.1(L) above, the tax-free benefits described in Section 6.1(M) above, and the in-kind benefits and reimbursements and tax gross-ups described in Section 6.1(N) above, in each case on the same terms and conditions as apply during the Benefits Period. Amounts to be paid and benefits and perquisites to be provided under this Section 7.3 are in addition to all other amounts, benefits and perquisites due under this Agreement (including amounts, benefits and perquisites due under
Section 6.1) and shall not be offset against or reduce any other amounts, benefits or perquisites due under this Agreement. For the avoidance of doubt, each

payment to be made and benefit to be provided under the first sentence of this Section 7.3 is contingent on there having been, prior to the date on which the payment is to be made or the benefit is to be provided, (A) an involuntary Separation from Service (within the meaning of

Treasury Regulation section 1.409A-1(n)(1)) of the Executive by the Company other than for Cause or Disability, or a Separation from Service by the Executive for Good Reason, (B) a dispute by the Company as described above, (C) the Executive's pursuit of the resolution of such dispute with reasonable diligence, and (D) no final resolution of such dispute, either by mutual written agreement of the parties or by a final judgment, order or decree of an arbitrator.

8. No Mitigation . The Company agrees that, if the Executive's employment with the Company terminates during the Term, the Executive is not required to seek other employment or to attempt in any way to reduce any amounts payable to the Executive by the Company pursuant to Section 6 hereof or Section 7.1 or 7.3 hereof. Further, the amount of any payment or benefit provided for in this Agreement (other than Sections 6.1(F) through (O) hereof) shall not be reduced by any compensation earned by the Executive as the result of employment by another employer, by retirement benefits, by offset against any amount claimed to be owed by the Executive to the Company, or otherwise.

9. Successors; Binding Agreement .

9.1 In addition to any obligations imposed by law upon any successor to the Company, during the Term the Company will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place. Failure of the Company to obtain such assumption and agreement prior to the effectiveness of any such succession during the Term shall be a material breach of this Agreement by the Company and, if such failure occurs before the Executive has a Separation from Service, shall entitle the Executive to compensation, benefits and perquisites from the Company in the same amount and on the same terms as the Executive would be entitled to hereunder if the Executive had an involuntary Separation from Service (within the meaning of Treasury Regulation section 1.409A-1(n)(1)) by the Company other than for Cause or Disability following a Change in Control and during the Term, provided that (A) the Executive notifies the Company that such failure has occurred within 90 days of the initial occurrence of such failure or, if later, within 90 days after the Executive first knows or should know of such failure (which notification may but need not be in the form of a Notice of Termination given in respect of such failure), (B) such failure is not corrected within 30 days after the Executive so notifies the Company, and (C) the Executive terminates employment (i.e., has a Separation from Service) after such 30 day period, within 2 years following the initial occurrence of such failure, and before the expiration of the Term.

9.2 This Agreement shall inure to the benefit of and be enforceable by the Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If the Executive shall die while any amount would still be payable to the Executive hereunder (other than amounts which, by their terms, terminate upon the death of the Executive) if the Executive had continued to live, all such amounts, unless otherwise provided herein, shall be paid in accordance with the terms of this Agreement to the executors, personal representatives or administrators of the Executive's estate.

10. Notices . For the purpose of this Agreement, notices and all other communications provided for in the Agreement shall be in writing and shall be deemed to have been duly given when delivered or mailed by United States registered mail, return receipt requested, postage prepaid,

addressed, if to the Executive, to the address inserted below the Executive's signature on the final page hereof and, if to the Company, to the address set forth below, or to such other address as either party may have furnished to the other in writing in accordance herewith, except that notice of change of address shall be effective only upon actual receipt:

To the Company: Barnes Group Inc.
123 Main Street
Bristol, CT 06010

Attention: Dawn N. Edwards
Senior Vice President, Human Resources

11. Miscellaneous . No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing and signed by the Executive and such officer as may be specifically designated by the Board. Notwithstanding the preceding sentence, the Company may unilaterally amend this Agreement in whole or in part before a Change in Control or Potential Change in Control occurs, in such respects as the Company may determine to be to be necessary, advisable or expedient to plan for, respond to, comply with or reflect Section 409A of the Code, and the Executive hereby consents to any amendments that the Company may make pursuant to this sentence. For the avoidance of doubt, the preceding sentence is not intended to authorize or constitute the Executive's consent to any amendment that would constitute a modification or extension of a stock option within the meaning of Treasury Regulation section 1.409A-1(b)(5)(v), and, if and to the extent that, notwithstanding the foregoing, anything therein would be interpreted or construed to authorize or constitute the Executive's consent to any such amendment, then to that extent the authorization or consent is hereby rescinded. No waiver by either party hereto at any time of any breach by the other party hereto of, or of any lack of compliance with, any condition or provision of this Agreement to be performed by such other party shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. This Agreement supersedes any other agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof which have been made by either party; provided , however , that this Agreement shall supersede any agreement setting forth the terms and conditions of the Executive's employment with the Company only in the event that the Executive has a Separation from Service following a Change in Control, and such Separation from Service is an involuntary Separation from Service (within the meaning of Treasury Regulation section 1.409A-1(n)(1)) by the Company other than for Cause or Disability, or is a Separation from Service by the Executive for Good Reason. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of Connecticut. All references to sections of the Exchange Act or the Code shall be deemed also to refer to any successor

provisions to such sections. Any payments provided for hereunder shall be paid net of any applicable withholding required under federal, state or local law and any additional withholding to which the Executive has agreed. The obligations of the Company and the Executive under this Agreement which by their nature may require either partial or total performance after the expiration of the Term (including, without limitation, those under Sections 6 and 7 hereof) shall survive such expiration.

12. Code Section 409A .

(A) The Executive's right to any series of payments, including without limitation taxable benefits, that are to be paid or provided under this Agreement and that is eligible to be treated as a right to a series of separate payments under Treasury Regulation section 1.409A-2(b)(2)(iii), including in particular but not limited to the Executive's right to the series of benefits under Sections 6.1(I) through 6.1(O), shall be treated as a right to a series of separate payments for purposes of Section 409A of the Code, including without limitation for purposes of the short-term deferral rule set forth in Treasury Regulation section 1.409A-1(b)(4).

(B) Any provision of this Agreement to the contrary notwithstanding, if the Executive is a Specified Employee on the date of a Separation from Service, any payment or benefit to be paid or provided pursuant to this Agreement that constitutes deferred compensation that is subject to Section 409A of the Code and that is payable due to a Separation from Service during the six month period following the Separation from Service shall not be paid before the date that is six months after the date of Separation from Service (or, if earlier, the date of death of the Executive) and shall instead be accumulated and paid on the first day of the seventh month following the date of the Separation from Service (or, if earlier, within 14 days after the death of the Executive), in accordance with Treasury Regulation section 1.409A-3(i)(2)(ii). The preceding sentence shall apply to any amount or benefit (and only to any amount or benefit) to be paid or provided pursuant to this Agreement to which Code
Section 409A(a)(2)(B)(i) (relating to Specified Employees) applies, and shall not apply to any amount or benefit if and to the extent that such amount or benefit is not subject to Section 409A of the Code as a result of Treasury Regulation section 1.409A-1(a)(5) (relating to welfare benefit plans), Treasury Regulation Section 1.409A-1(b)(4) (relating to short-term deferrals), Treasury Regulation Section 1.409A-1(b)(9) (relating to separation pay plans), or otherwise.

(C) If at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, the Executive is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code section 416(i)(5)), then the Executive shall be treated as a Specified Employee for purposes of Section 12(B) above for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board or the Committee at any time prescribes a different method of identifying service providers who will be subject to the six month delay required by Section 409A(a)(2)(B)(i) of the Code (the "Six Month

Delay") in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a "Different Identification Method") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a "Different Election"), in which case whether the Executive shall be treated as a Specified Employee for purposes of Section 12(B) above shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board or Committee. The Executive hereby irrevocably (i) consents to any such Different Identification Method that the
Board or Committee may prescribe at any time and any such Different Election that the Board or Committee may make at any time for purposes of identifying the service providers who will be subject to the Six Month Delay with respect to payments under this Agreement, and (ii) agrees that the Executive's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (iii) waives any right he or she may have to consent to the Different Identification Method or Different Election in question if for any reason the Executive's consent to such Different Identification Method or Different Election is not legally effective.

(D) Any payments that may be made and benefits that may be provided pursuant to this Agreement are intended to qualify for an exclusion from Section 409A of the Code (including without limitation the exclusion for certain welfare benefits under Treasury Regulation section 1.409A- 1(a)(5), the exclusion for short-term deferrals under Treasury Regulation section 1.409A-1(b)(4), and the exclusions for separation pay plans under Treasury Regulation section 1.409A-1(b)(9)), and/or are intended to meet the requirements of Section 409A(a)(2), (3) and (4) of the Code, so that none of the payments that may be made and benefits that may be provided pursuant to this Agreement will be includible in the Executive's federal gross income pursuant to Section 409A(a)(1)(A) of the Code. This Agreement shall be administered, interpreted and construed to carry out such intentions, and any provision of this Agreement that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, any provision of this Agreement to the contrary notwithstanding, the Company does not represent, warrant or guarantee that the payments and benefits that may be paid or provided pursuant to this Agreement will not be includible in the Executive's federal gross income

pursuant to Section 409A(a)(1)(A) of the Code, nor does the Company make any other representation, warranty or guaranty to the Executive as to the tax consequences of this Agreement.

13. Validity . The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

14. Counterparts . This Agreement may be executed in several counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

15. Settlement of Disputes; Arbitration .

15.1 All claims by the Executive for benefits under this Agreement shall be directed to and determined by the Board and shall be in writing. Any denial by the Board of a claim for benefits under this Agreement shall be delivered to the Executive in writing and shall set forth the specific reasons for the denial and the specific provisions of this Agreement relied upon. The Board shall afford a reasonable opportunity to the Executive for a review of the decision denying a claim and shall further allow the Executive to appeal to the Board a decision of the Board within sixty (60) days after notification by the Board that the Executive's claim has been denied.

15.2 Any further dispute or controversy arising under or in connection with this Agreement shall be settled exclusively by arbitration in Hartford, Connecticut in accordance with the rules of the American Arbitration Association then in effect; provided , however , that the evidentiary standards set forth in this Agreement shall apply. The arbitrator shall have the authority to require that the Company reimburse the Executive for the payment of all or any portion of the reasonable legal fees and expenses incurred by the Executive during the Term of this Agreement or at any time within ten years thereafter in connection with such dispute or controversy. The amount of legal fees and expenses eligible for reimbursement during a taxable year of the Executive may not affect the legal fees and expenses eligible for reimbursement in any other taxable year. Unless the arbitrator provides otherwise, any legal fees and expenses incurred by the Executive that the arbitrator requires the Company to reimburse shall be reimbursed on or before the last day of the Executive's taxable year following the taxable year in which the expense was incurred. Judgment may be entered on the arbitrator's award in any court having jurisdiction. Notwithstanding any provision of this Agreement to the contrary, the Executive shall be entitled to seek specific performance of the Executive's right to be paid amounts and benefits due under this Agreement during the pendency of any dispute or controversy arising under or in connection with this Agreement.

16. Definitions . For purposes of this Agreement, the following terms shall have the meanings indicated below:

(A) "Affiliate" shall have the meaning set forth in Rule 12b-2 promulgated under Section 12 of the Exchange Act.

(B) "Auditor" shall have the meaning set forth in Section 6.2 hereof.

(C) "Base Amount" shall have the meaning set forth in section 280G(b)(3) of the Code.

(D) "Beneficial Owner" shall have the meaning set forth in Rule 13d-3 under the Exchange Act.

(E) "Benefits Period" shall have the meaning set forth in Section 6.1(I) hereof.

(F) "Board" shall mean the Board of Directors of the Company.

(G) "Cause" for termination by the Company of the Executive's employment shall mean (i) the willful and continued failure by the Executive to substantially perform the Executive's duties with the Company (other than any such failure resulting from the Executive's incapacity due to physical or mental illness or any such actual or

anticipated failure after the issuance of a Notice of Termination for Good Reason by the Executive pursuant to Section 7.1 hereof) after a written demand for substantial performance is delivered to the Executive by the Board, which demand specifically identifies the manner in which the Board believes that the Executive has not substantially performed the Executive's duties, (ii) the engaging by the Executive in conduct which is demonstrably and materially injurious to the Company or its subsidiaries, monetarily or otherwise or (iii) the Executive's conviction for the commission of (a) a felony or (b) any other crime involving moral turpitude. For purposes of clauses (i) and (ii) of this definition, no act, or failure to act, on the Executive's part shall be deemed "willful" unless done, or omitted to be done, by the Executive not in good faith and without reasonable belief that the Executive's act, or failure to act, was in the best interest of the Company.

(H) A "Change in Control" shall be deemed to have occurred if the event set forth in any one of the following paragraphs shall have occurred:

(I) any Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its affiliates) representing 25% or more of the combined voting power of the Company's then outstanding securities, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (i) of paragraph (III) below; or

(II) the following individuals cease for any reason to constitute a majority of the number of directors then serving: individuals who, on the date hereof, constitute the Board and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board or nomination for election by the Company's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors on the date hereof or whose appointment, election or nomination for election was previously so approved or recommended; or

(III) there is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other corporation, other than (i) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any subsidiary of the Company, at least 60% of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation, or (ii) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates) representing 25% or more of the combined voting power of the Company's then outstanding securities; or

(IV) the shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity, at least 60% of the combined voting power of the voting securities of which

are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

(I) "Code" shall mean the Internal Revenue Code of 1986, as amended from time to time.

(J) "Committee" shall mean the Compensation and Management Development Committee of the Board or a successor committee of the Board.

(K) "Company" shall mean Barnes Group Inc. and, except in determining under Section 16(H) hereof whether or not any Change in Control of the Company has occurred, shall include any successor to its

business and/or assets which assumes and agrees to perform this Agreement by operation of law, or otherwise.

(L)"Date of Termination" shall have the meaning set forth in Section 7.2 hereof.

(M) "Disability" shall be deemed the reason for a Separation from Service, if, as a result of the Executive's incapacity due to physical or mental illness, the Executive shall have been absent from the full-time performance of the Executive's duties with the Company for a period of six (6) consecutive months, the Company shall have given the Executive a Notice of Termination for Disability, and, within thirty

(30) days after such Notice of Termination is given, the Executive shall not have returned to the full-time performance of the Executive's duties.

(N)"Exchange Act" shall mean the Securities Exchange Act of 1934, as amended from time to time.

(O)"Excise Tax" shall mean any excise tax imposed under section 4999 of the Code.

(P)"Executive" shall mean the individual named in the first paragraph of this Agreement.

(Q) "Good Reason" for a Separation from Service by the Executive shall mean the occurrence (without the Executive's express written consent) after any Change in Control, of any one of the following acts by the Company, or failures by the Company to act, if the Executive notifies the Company that such act or failure to act has occurred within 90 days of the initial occurrence of such act or failure to act (which notification may but need not be in the form of a Notice of Termination given in respect of such act or failure to act), and if such act or failure to act is not corrected within 30 days after the Executive so notifies the Company:

(I) the assignment to the Executive of any duties materially inconsistent with the Executive's status as an executive officer of the Company, or a material adverse alteration in the nature or status of the Executive's responsibilities from those in effect immediately prior to the Change in Control;

(II) a reduction by the Company in the Executive's annual base salary as in effect on the date hereof or as the same may be increased from time to time, by five percent (5%) or more or by $20,000 or more;

(III) the relocation of the Executive's principal place of employment to a location more than 50 miles from the Executive's principal place of employment immediately prior to the Change in Control, provided that such relocation increases the Executive's round trip commuting time by 25% or more, or the Company's requiring the Executive to be based anywhere other than such principal place of employment (or permitted relocation thereof) except for required travel on the Company's business to an extent substantially consistent with the Executive's present business travel obligations;

(IV) any termination of the Executive's employment for Cause which is not effected pursuant to a Notice of Termination satisfying the requirements of Section 7.1 hereof.

The Executive's continued employment shall not constitute consent to, or a waiver of rights with respect to, any act or failure to act constituting Good Reason hereunder.

(R)"Notice of Termination" shall have the meaning set forth in Section 7.1 hereof.

(S) "Person" shall have the meaning given in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 14(d) thereof, except that such term shall not include (i) any member of the Barnes family (by blood or marriage) or any entity for the benefit of, or controlled by, a member of the Barnes family (by blood or marriage), (ii) the Company or any of its subsidiaries, (iii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (iv) an underwriter temporarily holding securities pursuant to an offering of such securities, or (v) a corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company.

(T) "Potential Change in Control" shall be deemed to have occurred if the event set forth in any one of the following paragraphs shall have occurred:

(i) the Company enters into an agreement, the consummation of which would result in the occurrence of a Change in Control;

(ii) the Company or any Person publicly announces an intention to take or to consider taking actions which, if consummated, would constitute a Change in Control;

(iii) any Person becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing 15% or more of either the then outstanding shares of common stock of the Company or the combined voting power of the Company's then outstanding securities (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its affiliates); or

(iv)the Board adopts a resolution to the effect that, for purposes of this Agreement, a Potential Change in Control has occurred.

(U) "Retirement" shall be deemed the reason for the termination by the Executive of the Executive's employment if such employment is terminated in accordance with the Company's retirement policy, including early retirement, generally applicable to its salaried employees.

(V) "Separation from Service" means a "separation from service with the employer" within the meaning of Treasury Regulation Section 1.409A-1(h), where the "employer" means Barnes Group Inc. and all corporations and trades or businesses with which Barnes Group Inc. would be considered a single employer under Section 414(b) or Section 414(c) of the Code (as determined in accordance with the first sentence of Treasury Regulation section 1.409A-1(h)(3)).

(W) "Severance Payments" shall have the meaning set forth in Section 6.1 hereof.

(X) "Specified Employee" shall mean a specified employee within the meaning of Treasury Regulation Section 1.409A-1(i), as determined in accordance with Section 12(C) above.

(Y) "Tax Counsel" shall have the meaning set forth in Section 6.2 hereof.

(Z) "Term" shall mean the period of time described in Section 2 hereof (including any extension, continuation or termination described therein).

(AA) "Total Payments" shall mean those payments so described in Section 6.2 hereof.

IN WITNESS WHEREOF, the parties have executed this Agreement on , , effective as of the date and year first above written.

BARNES GROUP INC.

By: Name: Gregory F. Milzcik
Title: President and Chief Executive Officer

Name: [ ] EXECUTIVE

Address: (Home)

(Please print carefully)

TO: **[ ]** (the "Executive") DATE:

EXHIBIT A – COMPLETE AND PERMANENT RELEASE

The Executive is hereby offered severance payments and benefits in accordance with and subject to the terms of the Severance Agreement between the Executive and the Company (the "Agreement") dated as of August 3, 2009, in consideration of the Executive's execution and return of this Complete and Permanent Release (the "Release").

The Executive's severance payments and benefits pursuant to the Agreement will be paid and provided only if the Executive executes this release and returns the signed release to the Company within 45 days after the Date of Termination as defined in the Agreement, and if the Executive does not revoke the release. The severance payments and benefits will commence on the 8 th day after the execution and return to the Company of this Release (or, if such 8 th day is on a weekend or a holiday, on the next business day), provided that the Executive has not revoked this Release as hereinafter described. The Executive has seven (7) calendar days from the date that the Executive signs this Release to revoke this Release by giving written notice of the Executive's intent to do so to the Company. This Release shall not become effective or enforceable until this seven (7) day period has expired. If the Executive revokes this Release, the Executive will not receive the severance payments and benefits described in the Agreement.

By signing below, the Executive agrees that execution of this Release operates to, and hereby does, release the Company, its subsidiaries and affiliates, its (and its subsidiaries' and affiliates') present or former employees, officers, directors, shareholders, representatives and agents (the "Released Parties") from all claims or demands (the "Claims") the Executive has had, presently has or may have, based on the Executive's employment with the Company or the termination of that employment, including any rights or claims the Executive may have based on any facts or events, whether known or unknown by the Executive, including, without limitation, a release of any rights or claims the Executive may have based on the Civil Rights Act of 1966, as amended; the Civil Rights Act of 1991, as amended; the Age Discrimination in Employment Act of 1967, as amended; Title VII of the Civil Rights Act of 1964, as amended; the Americans with Disabilities Act of 1990; the Equal Pay Act of 1963; any and all laws of any state concerning wages, employment and discharge; any state or local municipality fair employment statutes or laws; or any other law, rule, regulation or ordinance pertaining to employment, terms and conditions of employment, or termination of employment; provided , however , that execution of this Release shall not adversely affect (i) the Executive's rights to receive benefits under the employee benefit plans and arrangements of the Company, following termination of the Executive's employment or Separation from Service (as defined in the Agreement);

(ii) the Executive's rights under the Agreement; or (iii) the Executive's rights to indemnification or advancement of expenses under applicable law, the Certificate of Incorporation or by-laws of the Company, any agreement between the Executive and the Company, or the Company's officers' and directors' liability insurance policies. The Executive is advised to consult with an attorney before signing the Release.

The Executive has forty-five (45) calendar days from the date of Separation from Service (as defined in the Agreement) in which to sign and return this Release to the Company.

For the Company:

ACCEPTED THIS DAY OF ,

Executive

BARNES GROUP INC. EXECUTIVE SEPARATION PAY PLAN
As Amended and Restated Effective January 1, 2012

Preamble

The Barnes Group Inc. Executive Separation Pay Plan (the "Plan") was amended in December 2007 and was further amended and restated effective December 31, 2008 to respond to Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") and the Treasury Regulations and official guidance thereunder. Any provision of the Plan as so amended and restated to the contrary notwithstanding, if any provision of the Plan as so amended and restated would change the time or form of payment of any amount that is payable under the Plan as in effect before December 31, 2008, such provision shall "apply only to amounts that would not otherwise be payable in 2008" within the meaning of paragraph .02 of §3 of IRS Notice 2006-79 as modified by Section 3.01(B)(1) of IRS Notice 2007-86, and shall be administered, interpreted and construed accordingly.

1. **Purpose .** The purpose of the Plan is to provide appropriate benefits to eligible executives of Barnes Group Inc. (the "Company") whose employment is terminated by the Company.

2. **Covered Employees .** Full-time salaried employees of the Company who are employed in the United States in salary grades 24 and above, and full-time salaried employees of the Company who are employed in the United States in salary grades 18 through 23 who have at least six months of service, are covered by the Plan. A person is considered to be a full-time employee if the person is regularly scheduled to work at least 30 hours per week.

3. **Payment of Benefits .** An employee covered under the Plan is entitled to receive benefits under the Plan if s/he has an "involuntary Separation from Service" within the

meaning of Treasury Regulation section 1.409A-1(n)(1) and such involuntary Separation from Service is without Cause; provided, however, that no benefits will be paid under the Plan if:

(a) the termination action is determined by the Company to be based on misconduct of any type including, but not limited to, violation of any Company rules or policies, or activity which results in the conviction of a felony; or

(b) the termination is the result of the sale of the stock or substantially all of the assets of a business unit of the Company and the employee is offered employment by the purchaser, within 30 days after the closing of the sale, in a position that is at least comparable to, and for compensation and benefits that are, in the aggregate, at least substantially equivalent to, the employee's position, compensation and benefits with the Company prior to the sale; or

(c) the employee is a party on December 31, 2008 to a severance agreement with the Company relating to Separation

from Service after a "Change in Control" of the Company as defined in the agreement (a "Severance Agreement"), or is an executive officer of the Company hired after that date, and the Separation from Service is both (i) a Separation from Service within two years following a "Change in Control", and (ii) either an involuntary Separation from Service (within the meaning of Treasury Regulation section 1.409A-1(n)(1)) by the Company other than for "Cause" or "Disability", or a Separation from Service by the employee for "Good Reason", as such terms in quotation marks are defined in the form of Severance Agreement as amended December 31, 2008.

For the avoidance of doubt, the exclusion set forth in this clause (c) shall apply even if the Change in Control referred to in subclause (i) hereof does not occur during the term of the Severance

Agreement, and even if no severance benefits are payable pursuant to the Severance Agreement in respect of the Separation from Service and, in the case of an executive officer hired after December 31, 2008, even if the employee is not party to a Severance Agreement.

For purposes of this Plan, (A) a "Separation from Service" means a "separation from service with the employer" within the meaning of Treasury Regulation section 1.409A-1(h), where the "employer" means the Company and all corporations and trades or businesses with which the Company would be considered a single employer under Section 414(b) or Section 414(c) of the Code (as determined in accordance with the first sentence of Treasury Regulation

section 1.409A-1(b)(3)); and (B) "Cause" means misconduct or activity described in (a) above, serious dereliction of duty, or grossly negligent or reckless conduct in connection with one's employment. An employee who is entitled to receive benefits under the Plan in accordance with Section 2 and the foregoing provisions of this Section 3 is hereinafter sometimes referred to as a "terminated employee".

4. **Severance Pay .**

4.1 A terminated employee who is entitled to receive benefits under this Plan is eligible to receive severance pay based on the following schedule:

(a) Grades 18-20: four months of base salary plus an additional two weeks of base salary for each year of service over five years up to a maximum total payment of six months of base salary.

(b) Grades 21-23: seven months of base salary.

(c) Grades 24 and above, except for the President and Chief Executive Officer: twelve months of base salary.

The minimum severance pay benefit payable under this Plan shall be one month's base salary or the amount of accrued vacation, whichever is greater, and shall be

paid within thirty days after the terminated employee's Separation from Service. For purposes of the Plan, "base salary" means the employee's base salary in effect immediately prior to the employee's Separation from Service, and any severance payment shall be calculated on the basis of the employee's salary grade immediately prior to the employee's Separation from Service.

4.2 Subject to the other provisions of this Section 4 and Section 8.5 below, payment shall be made on the terminated employee's regularly scheduled payroll payment dates as if no Separation from Service had occurred and he/she had continued as an employee, commencing with the next regularly scheduled payroll payment date after the date on which the terminated employee's Separation from Service occurs, and continuing on each regularly scheduled payroll payment date thereafter until full payment has been made in accordance with Section 4.1 above, and will be subject to normal deductions for items such as

income taxes, Social Security, and Medicare. For the avoidance of doubt, (a) ~regularly scheduled payroll payment dates" means the payroll payment dates per the payroll schedule applicable to the terminated employee immediately prior to the employee's Separation from Service, and (b) subject to the other provisions of this Section 4 and Section 8.5 below, the amount payable on each such regularly scheduled payment date is the amount of base salary that would have been paid to the terminated employee on that date if no Separation from Service had occurred and the terminated employee had been an employee of the Company on that date, but in no event shall the aggregate payments exceed the severance pay benefit determined in accordance with Section 4.1 above, nor shall payments be made more than twelve calendar months after the calendar month in

which an employee's Separation from Service occurs.

4.3 In no event will more than the minimum severance pay benefit (including but not limited to benefits payable pursuant to Section 6 below) be paid or provided unless the terminated employee executes after Separation from Service a release of any claims against the Company in a form approved by the Company's General Counsel, the executed release is delivered to the Company within 50 days after the Separation from Service or within such lesser period after the Separation from Service

as the Company's General Counsel may require, and the release becomes irrevocable within 60 days after the Separation from Service or within such lesser period after the Separation from Service as the Company's General Counsel may require. Any severance pay benefits in excess of the minimum severance pay benefit (including but not limited to benefits payable pursuant to Section 6 below) that, in the absence of this Section 4.3, would be paid or provided pursuant to Section 4.2 above or Section 6 below before the release becomes irrevocable shall be paid or provided after the release becomes irrevocable and within 74 days after the Separation from Service.

4.4 The Company may at any time provide in advance of any date after the employee's Separation from Service occurs that any severance pay benefit payable to the terminated employee pursuant to Section 4.2 above or Section 6 below on or after that date will be forfeited unless on or before that date, (a) the terminated employee executes a second release of claims' against the Company and delivers such second release to the Company, and (b) such second release of claims becomes irrevocable.

4.5 Severance pay for a terminated employee who was in any of salary grades 18 through 26 shall cease on the date that such terminated employee begins other employment, including but not limited to work for another party. The terminated employee shall promptly notify the Company in writing when he/she commences such employment.

4.6 Severance pay for a terminated employee who was in any of salary grades 27 and above shall not cease on the date that such terminated employee begins other employment, including but not limited to work for another party, but shall continue throughout the entire severance period.

5. **Accrued Vacation .** A terminated employee who executes a release of claims in a form approved by the Company's General Counsel shall be paid for any unused vacation or paid time off that he/she has accrued in accordance with Company policy prior to the Separation from Service. Payment for such accrued unused vacation or paid time off shall be made in a lump sum, net of normal deductions for items such as income taxes, Social Security and Medicare, within thirty days after the employee's Separation from Service.

6. **Other Benefits .**

6.1 A person may continue participation in the Company's medical and dental plans, in accordance with the terms of the applicable plans, for the period during which he/she receives severance payments. In addition, a person may continue participation in the health care reimbursement account portion of his/her flexible benefits plan, in accordance with the terms of such plan, using pre-tax dollars from such severance payments, for the period during which he/she receives severance payments, but not later than the end of the calendar year in which Separation from

Service occurs. If severance payments cease prior to the end of any month, coverage will continue until the end of the last month during which the person receives any severance

payments. Subject to Section 4.3 and Section 4.4 above and to Section 8.5 below, if immediately prior

to the Separation from Service the terminated employee was a participant in the Company's Enhanced Life Insurance Program ("ELIP") or Senior Executive Enhanced Life Insurance Program ("SEELIP") who had not yet attained age fifty-five (55) and at least ten (10) years of service with the Company and/or an "Affiliate" (as defined in the ELIP and SEELIP), then until the end of the calendar quarter in which the last severance payment is made to the terminated employee pursuant to Section 4 hereof, such terminated employee shall receive the same benefits, if any, under the ELIP or SEELIP as in effect immediately prior to Separation from Service (whichever program, if any, applied to the terminated employee immediately prior to such employee's Separation from Service), at the same times, that the terminated employee would have received if the ELIP and SEELIP as in effect immediately prior to Separation from Service had remained in effect and no Separation from Service had occurred and the terminated employee had continued to be actively employed and to receive his or her base salary until the last day of the calendar quarter in which the last severance payment is made to such terminated employee pursuant to Section 4 above; provided that, notwithstanding anything herein to the contrary, the Company may reduce the benefits payable pursuant to this sentence at any time, and, provided further, that in no event shall any benefits be paid or provided pursuant to this sentence after the calendar quarter in which the last severance payment is made to the terminated employee pursuant to Section 4 hereof. If prior to the Separation from Service the terminated employee was a participant in the ELIP or SEELIP who had attained age fifty-five (55) and at least

ten (10) years of service with the Company and/or an "Affiliate" (as defined in the ELIP and SEELIP), then after the Separation from Service the terminated employee's entitlement to any benefits under the ELIP or SEELIP shall be determined in accordance with the ELIP or SEELIP (whichever program, if any, applied to the terminated employee immediately prior to such employee's Separation from Service). Notwithstanding anything to the contrary herein, the Company reserves the right to discontinue or change the terms (including but not limited to the carrier) of any employee benefit plan, including without limitation the ELIP and the SEELIP. After severance payments cease, medical and dental coverage and the health care reimbursement account may be continued under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), as required by law and as provided in such plans. No person will be eligible for benefits under the short term disability and/or long term disability plans if they become disabled while receiving severance payments. Except as provided above, all other coverages cease upon Separation from Service in accordance with the applicable plan

documents, subject to any conversion or portability rights under such plans. Within the meaning of Treasury Regulation section 1.409A-3(i)(l)(iv), the amount of any expenses eligible for reimbursement, or in-kind benefits

provided, pursuant to this Section 6.1 or otherwise during a terminated employee's taxable year may not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, pursuant to this Section 6.1 or otherwise in any other taxable year.

6.2 Except to facilitate benefit continuation as provided in Section 6.1 hereof, a person's status as an employee shall cease upon the termination of employment date and not

continue during the period in which severance payments are made absent an agreement with the Company to the contrary. Without limiting the foregoing, employment shall be terminated for purposes of the Retirement Savings Plan, any applicable pension or profit-sharing plan, stock option plans, and for all other purposes upon the termination of employment date.

6.3 The right of a terminated employee to any series of installment payments, including without limitation severance payments and taxable benefits, that are to be paid or provided under this Plan, which right is eligible to be treated as a right to a series of separate payments under Treasury Regulation section 1.409A-2(b)(2)(iii), including in particular but not limited to the right of a terminated employee to the series of severance payments under Section 4 and benefits (including without limitation ELIP and SEELIP benefits) under Section 6.1, shall be treated as a right to a series of separate payments for purposes of Section 409A of the Code, including without limitation for purposes of the short-term deferral rule set forth in Treasury Regulation section 1.409A- 1 (b)(4).

7. **Administration .**

7.1 Benefits Committee. The Plan is administered by the Benefits Committee appointed by the Company's Board of Directors (the "Committee"). The Committee may promulgate rules or regulations for the administration of the Plan. The Committee shall, in its sole discretion, interpret and construe the Plan's terms and conditions, and determine an individual's eligibility for benefits. Any interpretations, constructions or determinations made by the Committee in good faith shall be final and binding on all concerned.

7.2 Claims Procedure. If any person believes that he/she is not receiving any benefits to which he/she is entitled under the Plan, the person, after reviewing the matter with the human resource representative serving the person's place of work, may file a written claim with the Director, Leadership and Development. Barnes Group Inc., 123 Main Street, Bristol, Connecticut 06010, or such other person designated by the Benefits Committee, who shall respond to such

claim in writing within 45 days after its receipt. If any claim is denied, the claimant may appeal such denial in writing to the Benefits Committee, c/o Barnes Group Inc., 123 Main Street, Bristol, Connecticut 06010. Any such appeal must be filed within 60 days after the denial of the claim. The Benefits Committee shall notify the claimant of its decision in writing within 60 days after receiving the appeal.

8. **Other Provisions .**

8.1 This Plan may be amended or terminated at any time and in any respect by the vote of a majority of the members of the Benefits Committee or by the unanimous written consent of the members of the Benefits Committee, except that, with respect to Company Officers, only the Compensation and Management Development Committee of the Company's Board of Directors shall have the power to terminate the Plan or make amendments affecting the level of benefits under the Plan. As used herein, "Officers" shall have the same meaning as in the Company's bylaws, excluding individuals with the "Assistant" title.

8.2 The benefits to be provided under this Plan shall not be funded and shall be paid out of the general assets of the Company.

8.3 For purposes of determining:

(a) an employee's eligibility under Section 2 of the Plan;

(b) the schedule of severance pay payments under Section 4 of the Plan; and

(c) the period of continuation of other benefits described in Section 6 of the Plan, only service since the employee's last date of hire with the Company shall be counted.

8.4 The Plan shall be construed, administered and enforced under the laws of the State of Connecticut except to the extent such laws are preempted by federal law.

8.5 Any provision of this Plan to the contrary notwithstanding, (a) no "distributions" (within the meaning of Treasury Regulation section 1.409A- 1(c)(3)(v)) of deferred compensation that is subject to Section 409A of the Code may be made pursuant to this Plan to a "specified employee" (within the meaning of Treasury Regulation section 1.409A-1(i))("Specified Employee") due to a Separation from Service before the date that is six months after the date of such Specified Employee's Separation from Service (or, if earlier than the end of the six month period, the date of his or her death); and (b) any distribution that, but for the preceding clause (a), would be made before the date that is six months after the date of the Specified Employee's Separation from Service shall be paid on the first day of the seventh month following the date of his

or her Separation from Service (or, if earlier, within 14 days after the date of his or her death). For the avoidance of doubt, the preceding sentence shall apply to any amount or benefit (and only to any amount or benefit) to be paid or provided pursuant to this Plan to which Code Section 409A(a)(2)(B)(i) (relating to Specified Employees) applies, and shall not apply to any amount or benefit to be paid or provided pursuant to this Plan if and to the extent that such

amount or benefit is not subject to Section 409A of the Code as a result of Treasury Regulation section 1.409A-1(a)(4) (relating to welfare benefits), Treasury Regulation Section 1.409A-1(b)(4) (relating to short-term deferrals), Treasury Regulation Section 1.409A-1(b)(9) (relating to separation pay plans), or otherwise.

8.6 If at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, a person who participates in or has any legally binding right, contingent or otherwise, under this Plan (a "Plan Participant"), is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code Section 41 6(i)(5)), then the Plan Participant shall be

treated as a Specified Employee for purposes of Section 8.5 above for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board of Directors of the Company (the "Board of Directors") or its Compensation and Management Development Committee (the "CMDC") at any time prescribes a different method of identifying service providers who will be subject to the six month delay required by Section 409A(a)(2)(B)(i) of the Code (the "Six Month Delay") in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a "Different Identification Method") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a "Different Election"), in which

case whether the Plan Participant shall be treated as a Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board of Directors or the CMDC, By participating or continuing to participate in this Plan or accepting any legally binding right or benefit under this Plan, each Plan Participant irrevocably

(a) consents to any such Different Identification Method that the Board of Directors or CMDC may prescribe at any time and any such Different Election that the Board of Directors or CMDC may make at any time for purposes of identifying the

service providers who will be subject to the Six Month Delay with respect to payments under this Plan, and (b) agrees that the Plan Participant's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (c) waives any right he or she may have to consent to the Different Identification Method or Different Election in question if for any reason the Plan Participant's consent to such Different Identification Method or Different Election is not legally effective.

8.7 Any payments that may be made and benefits that may be provided pursuant to this Plan are intended to qualify for an exclusion from Section 409A of the Code (including without limitation the exclusion for certain welfare benefits under Treasury Regulation section 1.409A-1(a)(5), the exclusion for short-term

deferrals under Treasury Regulation section 1.409A-1(b)(4), and the exclusions for separation pay plans under Treasury Regulation section 1.409A-1(b)(9)) and/or are intended to meet the requirements of Section 409A(a)(2), (3) and (4) of the Code, so that none of the payments that may be made and benefits that may be provided pursuant to

this Plan will be includible in any Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code. This Plan and any agreement or instrument issued under this Plan shall be administered, interpreted and construed to carry out such intentions and any provision of this Plan or any such agreement or instrument that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any payments that may be made and benefits that may be provided pursuant to this Plan will not be ineludible in any Plan Participant's federal gross income pursuant to Section 409A(a)(l)(A) of the Code; nor does the Company make any other representation, warranty or guaranty to any Plan Participant as to the tax consequences of this Plan or of participation in this Plan.

Effective: May 1, 1992

Revised: April 5, 2000
June 29, 2006
August 29, 2006
December 30, 2007
December 31, 2007
December 31, 2008
September 17, 2010
December 15, 2011

BARNES GROUP INC.

By: __

Its: __

Date: __

TRUST AGREEMENT

Between

BARNES GROUP INC.

And

FIDELITY MANAGEMENT TRUST COMPANY

BARNES GROUP INC. 2009 DEFERRED COMPENSATION PLAN TRUST

Dated as of September 1, 2009

Confidential Information

TABLE OF CONTENTS

Section 1. Definitions 2

Section 2. Trust 5

(a) Establishment 6
(b) Grantor Trust 6
(c) Trust Assets 6
(d) Non-Assignment 6

Section 3. Payments to Sponsor 7

Section 4. Disbursements 7

(a) Directions from Administrator 7
(b) Limitations 7

Section 5. Investment of Trust 7

(a) Selection of Investment Options 7
(b) Available Investment Options 7
(c) Investment Directions 7
(d) Unfunded Status of Plan 8
(e) Mutual Funds 8
(i) Execution of Purchases and Sales 8
(ii) Voting 8
(f) Trustee Powers 9

Section 6. Recordkeeping and Administrative Services to Be Performed 10

(a) General 10
(b) Accounts 10
(c) Inspection and Audit 10
(d) Notice of Plan Amendment 11
(e) Returns, Reports and Information 11

Section 7. Compensation and Expenses 12

Section 8. Directions and Indemnification 12

(a) Identity of the Sponsor and the Administrator 12
(b) Directions from the Sponsor and the Administrator 12
(c) Directions from Participants 12
(d) Indemnification 13
(e) Survival 13

Section 9. Resignation or Removal of Trustee 13

Section 10. Successor Trustee 14

(a) Performance by Trustee, its Agents or Affiliates 19

(b) Entire Agreement 19
(c) Waiver 19
(d) Successors and Assigns 19
(e) Partial Invalidity 19
(f) Section Headings 19

Section 20. Situs of Trust Assets 20

Section 21. Governing Law 20

(a) Massachusetts Law Controls 20
(b) Trust Agreement Controls 20

SCHEDULES 22

Schedule “A” Recordkeeping and Administrative Services 22

Schedule “B” Fee Schedule 25

Schedule “C” Investment Options 26

Schedule “D” Operational Guidelines for Non-Fidelity Mutual Funds 27

TRUST AGREEMENT , dated as of the first day of September 2009 (“Effective Date”), between **BARNES GROUP INC.** , a Delaware corporation, having an office at 123 Main Street, Bristol, Connecticut 06011 (the “Sponsor”), and **FIDELITY MANAGEMENT TRUST COMPANY** , a Massachusetts trust company, having an office at 82 Devonshire Street, Boston, Massachusetts 02109 (the “Trustee”).

WITNESSETH:

WHEREAS , the Sponsor is the sponsor of the Barnes Group Inc. 2009 Deferred Compensation Plan (the “Plan”); and

WHEREAS , the Sponsor wishes to establish an irrevocable trust (the “Trust”) ***”*** with regard to the Plan and to contribute to the Trust assets that shall be held therein, subject to the claims of Sponsor’s creditors in the event of Sponsor’s Insolvency, as herein defined, until paid to Participants and their beneficiaries in such manner and at such times as specified in the Plan; and

WHEREAS , it is the intention of the parties that this Trust shall constitute an unfunded arrangement and shall not affect the status of the Plan as an unfunded plan maintained for the purpose of providing deferred compensation for a select group of management or highly compensated employees for purposes of Title I of the Employee Retirement Income Security Act of 1974 (“ERISA”); and

WHEREAS , it is the intention of the Sponsor to make contributions to the Trust to provide itself with a source of funds to assist it in the meeting of its liabilities under the Plan; and

WHEREAS , the Trustee is willing to hold and invest the aforesaid plan assets in trust among several investment options selected by the Sponsor; and

WHEREAS , the Sponsor also wishes to have the Trustee perform certain ministerial recordkeeping and administrative functions under the Plan; and

WHEREAS , the Trustee is willing to perform recordkeeping and administrative services for the Plan if the services are ministerial in nature and are provided within a framework of plan provisions, guidelines and interpretations conveyed in writing to the Trustee by the Sponsor or by the Administrator (as defined herein).

NOW, THEREFORE , in consideration of the foregoing premises and the mutual covenants and agreements set forth below, the Sponsor and the Trustee agree as follows:

Section 1. Definitions.

The following terms as used in this Trust Agreement have the meaning indicated unless the context clearly requires otherwise:

(a) "Administrator"

"Administrator" shall mean the Compensation and Management Development Committee of the Sponsor's Board of Directors or such other person or persons (including any entity) identified in the Plan document as the "administrator" of the Plan and, as the context requires, any person authorized to act on behalf of the Administrator.

(b) "Agreement"

"Agreement" shall mean this Trust Agreement, and the Schedules and/or Exhibits attached Confidential Information 2

hereto, as the same may be amended and in effect from time to time.

(c) "Business Day"

"Business Day" shall mean each day the NYSE is open. The closing of a Business Day generally shall mean the NYSE's normal closing time of 4:00 p.m.(ET); however, in the event the NYSE closes before such time or alters its closing time, all references to the NYSE closing time shall mean the actual or altered closing time of the NYSE.

(d) "Code"

"Code" shall mean the Internal Revenue Code of 1986, as it has been or may be amended from time to time.

(e) "EDT"

"EDT" shall mean electronic data transfer.

(f) "Electronic Services"

"Electronic Services" shall mean communication and services made available via electronic media.

(g) "ERISA"

"ERISA" shall mean the Employee Retirement Income Security Act of 1974, as it has been or may be amended from time to time.

(h) "Fidelity Mutual Fund"

"Fidelity Mutual Fund" shall mean any investment company advised by Fidelity Management & Research Company or any of its affiliates.

(i) "FIIOC"

"FIIOC" shall mean Fidelity Investments Institutional Operations Company, Inc.

(j) "In Good Order"

"In Good Order" shall mean in a state or condition acceptable to the Trustee in its sole discretion, which the Trustee determines is reasonably necessary for accurate execution of the intended transaction.

(k) "Insolvency" or "Insolvent"

"Insolvency" or "Insolvent" shall mean that (i) the Sponsor is unable to pay its debts as they become due, or (ii) the Sponsor is subject to a pending proceeding as a debtor under the United States Bankruptcy Code.

(l) "Losses"

"Losses" shall mean any and all loss, damage, penalty, liability, cost and expense, including without limitation, reasonable attorney's fees and disbursements.

(m) "Mutual Fund"

"Mutual Fund" shall refer both to Fidelity Mutual Funds and Non-Fidelity Mutual Funds.

(n) "NAV"

"NAV" shall mean Net Asset Value.

(o) "NFSLLC"

"NFSLLC" shall mean National Financial Services LLC.

(p) "Non-Fidelity Mutual Fund"

"Non-Fidelity Mutual Fund" shall mean certain investment companies not advised by Fidelity Management & Research Company or any of its affiliates.

(q) "NYSE"

"NYSE" shall mean the New York Stock Exchange.

(r) "Participant"

"Participant" shall mean, with respect to the Plan, any employee (or former employee) with an account under the Plan which has not yet been fully distributed and/or forfeited and shall include the designated beneficiary(ies) with respect to the account of any deceased employee (or deceased former employee) until such account has been fully distributed and/or forfeited.

(s) "Participant Recordkeeping Reconciliation Period"

"Participant Recordkeeping Reconciliation Period" shall mean the period beginning on the date of the initial transfer of assets to the Trust and ending on the date of the completion of the reconciliation of Participant records.

(t) "Person"

"Person" shall mean any corporation, joint stock company, limited liability company, association, partnership, joint venture, organization, individual, business or other trust or any other entity or organization of any kind or character, including a court or other governmental authority.

(u) "PIN"

"PIN" shall mean personal identification number.

(v) "Plan"

"Plan" shall mean the Barnes Group Inc. 2009 Deferred Compensation Plan.

(w) "Plan Administration Design & Discovery Document"

"Plan Administration Design & Discovery Document" shall mean the document which sets forth the administrative and recordkeeping duties and procedures to be followed by the Trustee in administering the Plan, as such document may be amended and in effect from time to time during

the initial implementation of the Plan onto the Fidelity Participant Recordkeeping System ("FPRS"). This document is an interim document and shall be superseded by the approved Plan Administration Manual.

(x) "Plan Administration Manual"

"Plan Administration Manual" shall mean the document which sets forth the administrative and recordkeeping duties and procedures to be followed by the Trustee in administering the Plan, as such document may be amended and in effect from time to time. This definition shall include the Plan Administration Design & Discovery Document from the implementation process until the full Plan Administration Manual can be generated and approved.

(y) "Plan Sponsor Webstation"

"Plan Sponsor Webstation" shall mean the graphical Windows-based application that provides current Plan and Participant information including indicative data, account balances, activity and history.

(z) "Reporting Date"

"Reporting Date" shall mean the last day of each fiscal quarter of the Plan and, if not on the last day of the fiscal quarter, the date as of which the Trustee resigns or is removed pursuant to this Agreement or the date as of which this Agreement terminates pursuant to Section 9 hereof.

(aa) "SEC"

"SEC" shall mean the Securities and Exchange Commission.

(bb) "Sponsor"

"Sponsor" shall mean Barnes Group Inc., a Delaware corporation, or any successor thereto which, by agreement, operation of law or otherwise, assumes the responsibility of the Sponsor under this Agreement.

(cc) "Trust"

"Trust" shall mean the Barnes Group Inc. 2009 Deferred Compensation Plan Trust, being the trust established by the Sponsor and the Trustee pursuant to the provisions of this Agreement.

(dd) "Trustee"

"Trustee" shall mean Fidelity Management Trust Company, a Massachusetts trust company and any successor to all or substantially all of its trust business as described in Section 10. The term Trustee shall also include any successor trustee appointed pursuant to Section 10 to the extent such successor agrees to serve as Trustee under this Agreement.

(ee) "VRS"

"VRS" shall mean Voice Response System.

Section 2. Trust.

(a) Establishment.

The Sponsor hereby establishes the Trust with the Trustee. The Trust shall consist of an initial contribution of money or other property acceptable to the Trustee, in its sole discretion, made by the Sponsor, such additional sums of money or property as shall from time to time be delivered to the Trustee as directed by the Sponsor, all investments made therewith and proceeds thereof, and all earnings and profits thereon, less the payments that are made by the Trustee as provided herein, without distinction between principal and income. The Trustee hereby accepts the Trust on the terms and conditions set forth in this Agreement. In

accepting this Trust, the Trustee shall be accountable for the assets received by it, subject to the terms and conditions of this Agreement.

The Sponsor, in its sole discretion, may at any time, or from time to time, make such deposits of cash or other property acceptable to the Trustee, including policies of life insurance, in trust with Trustee to augment the principal to be held, administered and disposed of by Trustee as provided in this Trust Agreement. Neither Trustee nor any Plan Participant or other person shall have any right to compel such additional deposits. Notwithstanding the foregoing, upon any of the events set forth in Section 9.7(a)(b),
(c) or (d) of the Plan (a "Plan Section 9.7 event"), the Sponsor shall, as soon as possible, but in no event longer than fifteen
(15) days following the Plan Section 9.7 event, make a contribution to the Trust in an amount that is sufficient to pay the Plan Participants the benefits to which the Plan Participants would be entitled pursuant to the terms of the Plan(s) as of the date on which the Plan Section 9.7 event occurred; provided that the Sponsor has no obligation to transfer money or property to the Trust in connection with a change in the Company's financial health that would involve income inclusion and tax liability under Internal Revenue Code ("Code") Section 409A(b) and any regulations and guidance issued thereunder.

Sponsor will notify Trustee if there is a Plan Section 9.7 event.

(b) Grantor Trust.

The Trust is intended to be a grantor trust, of which the Sponsor is the grantor, within the meaning of subpart E, part I, subchapter J, chapter 1, subtitle A of the Code, as amended, and shall be construed accordingly.

(c) Trust Assets.

The principal of the Trust, and any earnings thereon, shall be held separate and apart from other funds of the Sponsor and shall be used exclusively for the uses and purposes of Participants and general creditors as herein set forth. Participants and their beneficiaries shall have no preferred claim on, or any beneficial ownership interest in, any assets of the Trust. Any rights created under the Plan and this Agreement shall be mere unsecured contractual rights of Participants and their beneficiaries against the Sponsor. Any assets held by the Trust will be subject to the claims of the Sponsor's general creditors under federal and state law in the event of Sponsor's Insolvency.

(d) Non-Assignment.

Benefit payments to Participants and their beneficiaries funded under this Trust may not be anticipated, assigned (either at law or in equity), alienated, pledged, encumbered, or subjected to attachment, garnishment, levy, execution, or other legal or equitable process. Nothwithstanding anything in this Agreement to the contrary, the Sponsor can direct the Trustee to disperse monies pursuant to a domestic relations order as defined in Code section 414(p)(1)(B) to the extent consistent with the Plan, the Code, and any other applicable law.

Section 3. Payments to Sponsor.

Except as provided under this Agreement, the Sponsor shall have no right to retain or divert to others any of the Trust assets before all payment of benefits have been made to Participants pursuant to the terms of the Plan.

Section 4. Disbursements.

(a) Directions from Administrator.

The Trustee shall disburse monies to Participants for benefit payments in the amounts that the Administrator directs from time to time in writing. The Trustee shall have no responsibility to ascertain whether the Administrator's direction complies with the terms of the Plan or of any applicable law. The Trustee shall be responsible for Federal or State income tax reporting or withholding with respect to such Plan benefits. The Trustee shall not be responsible for FICA (Social Security and Medicare), or any Federal or State unemployment or local tax with respect to Plan distributions, unless required by law or by agreement with the Sponsor.

(b) Limitations.

The Trustee shall not be required to make any disbursement in excess of the net realizable value of the assets of the Trust at the time of the disbursement. The Trustee shall not be required to make any disbursement in cash or shares unless the Administrator has provided a written direction as to the assets to be converted to cash or shares for the purpose of making the disbursement.

Section 5. Investment of Trust.

(a) Selection of Investment Options.

The Trustee shall have no responsibility for the selection of investment options under the Trust and shall not render investment advice to any person in connection with the selection of such options.

(b) Available Investment Options.

The Sponsor shall direct the Trustee as to what investment options the Trust shall be invested in (i) during the Participant Recordkeeping Reconciliation Period, and (ii) following the Participant Recordkeeping Reconciliation Period, subject to the following limitations. The Sponsor may determine to offer as investment options only (i) Mutual Funds; provided, however, that the Trustee shall not be considered a fiduciary with investment discretion. The Sponsor may add or remove investment options with the consent of the Trustee to reflect administrative concerns and upon mutual amendment of this Agreement and the Schedules thereto, to reflect such additions.

(c) Investment Directions.

The Sponsor shall direct the Trustee as to how to invest the assets held in the Trust. In order to provide for an accumulation of assets comparable to the contractual liabilities accruing under the

Plan, the Sponsor may direct the Trustee in writing to invest the assets held in the Trust to correspond to the hypothetical investments made for Participants in accordance with their direction under the Plan. In such cases, Participants may provide directions with respect to their hypothetical investments under the Plan by use of the system maintained for such purposes by the Trustee or its agents, as may be agreed upon from time to time by the Sponsor and the Trustee, and shall be processed in accordance with the fund exchange provisions set forth in the Plan Administration Manual. The Trustee shall not be liable for any loss or expense that arises from a Participant's exercise or non-exercise of rights under this Section 5 over the assets in the Participant's accounts. In the event that the Trustee fails to receive a proper direction, the assets in question shall be invested in the investment option set forth for such purpose on Schedule "C" until the Trustee receives a proper direction.

(d) Unfunded Status of Plan

The Sponsor's designation of available investment options, the maintenance of accounts for each Participant, the crediting of investments gains (or losses) to such accounts, and the exercise by Participants of any powers relating to investments under this Agreement are solely for the purpose of providing a mechanism for measuring the obligation of the Sponsor to any particular Participant under the applicable Plan. As provided in this Agreement, no Participant will have any preferential claim to or beneficial ownership interest in any asset or investment held in the Trust, and the rights of any Participant under the applicable Plan and this Agreement are solely those of an unsecured general creditor of the Sponsor with respect to the benefits of the Participant under the Plan.

(e) Mutual Funds.

On the effective date of this Agreement, in lieu of receiving a printed copy of the prospectus for each Fidelity Mutual Fund selected by the Sponsor as a Plan investment option or short-term investment fund, the Sponsor hereby consents to receiving such documents electronically. The Sponsor shall access each prospectus on the internet after receiving notice from the Trustee that a current version is available online at a website maintained by the Trustee or its affiliate. Trustee represents that on the effective date of this Agreement, a current version of each such prospectus is available at https://www.fidelity.com or such successor website as Trustee may notify the Sponsor of in writing from time to time. The Sponsor represents that it has accessed/will access each such prospectus as of the effective date of this Agreement at https://www.fidelity.com or such successor website as Trustee may notify the Sponsor of in writing from time to time. Trustee represents that transactions involving Non-Fidelity Mutual Funds shall be executed in accordance with the operational guidelines set forth in Schedule "D" attached hereto. Trust investments in Mutual Funds shall be subject to the following limitations:

(i) Execution of Purchases and Sales.

Purchases and sales of Mutual Funds (other than for exchanges) shall be made on the date on which the Trustee receives from the Sponsor In Good Order all information and documentation necessary to accurately effect such transactions and (if applicable) wire transfer of funds .

Exchanges of Mutual Funds shall be processed in accordance with the fund exchange provisions set forth in the Plan Administration Manual.

(ii) Voting.

The Sponsor directs the Trustee to vote the shares of Mutual Funds held in the Trust in the same manner as directed by

credited to Participants' accounts under the Plan. At the time of mailing of notice of each annual or special stockholders' meeting of any Mutual Fund, the Trustee shall send a copy of the notice and all proxy solicitation materials to each Participant who has hypothetical shares of such Mutual Fund credited to the Participant's account, together with a voting direction form for return to the Trustee or its designee. The Participant shall have the right to direct the Trustee as to the manner in which the Trustee is to vote the hypothetical shares credited to the Participant's account. The Trustee shall vote the shares held in the Trust in a manner which corresponds to Participant directions with respect to the hypothetical shares credited to the Participant's Plan account. The Trustee shall not vote shares for which it has received no corresponding directions from the Participant.

During the Participant Recordkeeping Reconciliation Period, the Sponsor shall have the right to direct the Trustee as to the manner in which the Trustee is to vote the shares of the Mutual Funds in the Trust, including Mutual Fund shares held in any short-term investment fund for liquidity reserve. Following the Participant Recordkeeping Reconciliation Period, the Sponsor shall continue to have the right to direct the Trustee as to the manner in which the Trustee is to vote any Mutual Funds shares held in a short-term investment fund for liquidity reserve. The Trustee shall not vote any such Mutual Fund shares for which it has received no directions from the Sponsor.

With respect to all rights other than the right to vote, the Trustee shall follow the directions of the Sponsor. The Trustee shall have no further duty to solicit directions from the Sponsor or Participants, except as required by law.

(f) Trustee Powers.

The Trustee shall have the following powers and authority:

(i) Subject to this Section 5, to sell, exchange, convey, transfer, or otherwise dispose of any property held in the Trust, by private contract or at public auction. No person dealing with the Trustee shall be bound to see to the application of the purchase money or other property delivered to the Trustee or to inquire into the validity, expediency, or propriety of any such sale or other disposition.

(ii) To cause any securities or other property held as part of the Trust to be registered in the Trustee's own name, in the name of one or more of its nominees, or in the Trustee's account with the Depository Trust Company of New York and to hold any investments in bearer form, but the books and records of the Trustee shall at all times show that all such investments are part of the Trust.

(iii) To keep that portion of the Trust in cash or cash balances as the Sponsor or Administrator may, from time to time, deem to be in the best interest of the Trust.

(iv) To make, execute, acknowledge, and deliver any and all documents of transfer or conveyance and to carry out the powers herein granted.

(v) To settle, compromise, or submit to arbitration any claims, debts, or damages due to or arising from the Trust; to commence or defend suits or legal or administrative proceedings; to represent the Trust in all suits and legal and administrative hearings; and to pay all reasonable expenses arising from any such action, from the Trust if not paid by the Sponsor.

(vi) To employ legal, accounting, clerical, and other assistance as may be required in carrying out the provisions of this Agreement and to pay their reasonable expenses and compensation from the Trust if not paid by the Sponsor.

(vii) To do all other acts, although not specifically mentioned herein, as the Trustee may deem necessary to carry out any of the foregoing powers and the purposes of the Trust.

Notwithstanding any powers granted to the Trustee pursuant to this Agreement or to applicable law, Trustee shall not have any power that could give this Trust the objective of carrying on a business and dividing the gains therefrom, within the meaning of Section 301.7701-2 of the Procedure and Administrative Regulations promulgated pursuant to the Code. The Trustee will file an annual fiduciary return to the extent required by law.

Section 6. Recordkeeping and Administrative Services to Be Performed.

(a) General.

The Trustee shall perform those recordkeeping and administrative functions described in Schedule "A" attached hereto. These recordkeeping and administrative functions shall be performed within the framework of the Administrator's written directions regarding the Plan's provisions, guidelines and interpretations. The Sponsor acknowledges that the Trustee will be working to streamline and standardize its service model and agrees to reasonably cooperate with the Trustee in connection with those efforts. The Trustee will make the Sponsor aware of the service model changes in advance and will work with the Sponsor to determine the most efficient and effective methods of implementing the changes. The Sponsor acknowledges that the Trustee does not provide legal or tax advice, and that the Sponsor must obtain its own legal and tax counsel for advice on the plan design appropriate for its specific situation and on legal and tax issues pertaining to the administration of the Plan. The Sponsor further acknowledges that the Trustee has no continuing responsibility to be aware of and responsive to IRS guidance provided under Section 409A of the Code as the Trustee is not the responsible party for (a) ensuring that direction to the Trustee conforms with that guidance, and (b) the payment of all taxes and penalties associated with a failure to maintain such compliance.

(b) Accounts.

The Trustee shall keep accurate accounts of all investments, receipts, disbursements, and other transactions hereunder, and shall report the value of the assets held in the Trust as of the last day of each Reporting Date. Within thirty (30) days following each Reporting Date or within sixty (60) days in the case of a Reporting Date caused by the resignation or removal of the Trustee, or the termination of this Agreement, the Trustee shall file with the Administrator a written account setting forth all investments, receipts, disbursements, and other transactions effected by the Trustee between the Reporting Date and the prior Reporting Date, and setting forth the value of the Trust as of the Reporting Date. Except as otherwise required under applicable law, upon the expiration of six (6) months from the date of filing such account, the Trustee shall have no liability or further accountability to anyone with respect to the propriety of its acts or transactions shown in such account, except with respect to such acts or transactions as to which a written objection shall have been filed with the Trustee within such six (6) month period.

(c) Inspection and Audit.

Upon the resignation or removal of the Trustee or the termination of this Agreement, the Trustee shall provide to the Sponsor (and to such other persons as the Sponsor reasonably designates in writing), at no expense to the Sponsor, in the format regularly provided to the Sponsor, a statement of each Participant's account as of the resignation, removal, or termination, and the Trustee shall provide to the Sponsor or the Plan's new recordkeeper such further records as are reasonable, at the Sponsor's expense.

The Trustee will provide to auditors (including third-party auditors and Sponsor's internal audit staff) as Sponsor may designate in writing, access to any Trustee owned or managed facility at which the services are being performed, to appropriate Trustee management personnel, and to the data and records (and other documentation reasonably requested by the Sponsor) maintained by the Trustee with respect to the services solely for the purpose of examining (i) transactional books and records maintained by the Trustee in order to provide the services, (ii) documentation of service level performance, and (iii) invoices to the Sponsor. Any such audits will be conducted at the Sponsor's expense. The Sponsor and its auditors will first look to the most recent Type II Service Auditor's Report ("Type II SAR") before conducting further audits. Type II SAR's are reports issued by the Trustee's or its affiliate's independent public accounting firm in accordance with Statement on Auditing Standard No. 70 ("SAS 70"). If a matter is not covered in such Type II SAR, then the Sponsor will provide the Trustee with a proposed detailed scope and timeframe of the audit requested by the Sponsor in writing at least sixty (60) days prior to date of the audit. The Sponsor will provide the Trustee with not less than ninety (90) days prior written notice of an audit, excepting audit requests from governmental or regulatory agencies. The Sponsor and its auditors will conduct such audits in a manner that will result in a minimum of inconvenience and disruption to the Trustee's operations. Audits may be conducted only during normal business hours and no more frequently than annually unless otherwise required as a matter of law or for compliance with regulatory or contractual requirements. Any audit assistance provided by the Trustee in excess of the number of audit hours per annum referenced in the fee schedule shall be provided on a fee-for-service basis. The Sponsor and its auditors will not be entitled to review or audit (i) data or information of other customers or clients of the Trustee, (ii) any of Trustee's proprietary data, or (iii) any other Confidential Information of the Trustee that is not relevant for the purposes of the audit. The Sponsor and its auditors will not be entitled to logical access to the Trustee's networks and systems, nor unrestricted physical access to Trustee's facilities and personnel. Reviews of processes, controls, and support documentation will be facilitated with appropriate Trustee's personnel. The Trustee will use commercially reasonable efforts to cooperate in the audit, will make available on a timely basis the information reasonably required to conduct the audit and will assist the designated employees of the Sponsor or its auditors as reasonably necessary. The Sponsor will reimburse the Trustee for any costs incurred by the Trustee in connection with an audit conducted pursuant to this section. To the maximum extent possible, audits will be designed and conducted (in such manner and with such frequency) so as not to interfere with the provision of the services. The Sponsor will not use any competitors of the Trustee (or any significant subcontractor of Trustee under this Agreement) to conduct such audits. The auditors and other representatives of the Sponsor will execute and deliver such confidentiality and non-disclosure agreements and comply with such security and confidentiality requirements as the Trustee may reasonably request in connection with such audits.

(d) Notice of Plan Amendment.

The Trustee's provision of the recordkeeping and administrative services set forth in this Section shall be conditioned on the Sponsor delivering to the Trustee a copy of any amendment to the Plan as soon as administratively feasible following the amendment's adoption, and on the Administrator providing the Trustee, on a timely basis, with all the information the Trustee deems necessary for the Trustee to perform the recordkeeping and administrative services and such other information as the Trustee may reasonably request.

(e) Returns, Reports and Information.

Except as set forth in the Plan Reporting section of Schedule "A", or as otherwise required by law, the Trustee shall not be responsible for the preparation or filing of returns, reports or information required of the Trust or Plan. The Trustee shall provide the Administrator and Sponsor with such information as the Administrator and Sponsor may reasonably request to in order to file such

returns and reports as, in their discretion, are necessary or advisable.

Section 7. Compensation and Expenses.

Sponsor shall pay to Trustee, within thirty (30) days of receipt of the Trustee's bill, the fees for services in accordance with Schedule "B." Fees for services are specifically outlined in Schedule "B" and are based on any assumptions identified therein. In the event that the Plan characteristics referenced in the assumptions outlined in Schedule "B" change significantly by either falling below or exceeding current or projected levels, such fees may be subject to revision, upon mutual renegotiation. To reflect increased operating costs, Trustee may once each calendar year amend Schedule "B" without the Sponsor's consent upon ninety
(90) days prior notice to the Sponsor.

All reasonable expenses of Plan administration as shown on Schedule "B" attached hereto, as amended from time to time, shall be a charge against and paid from the appropriate Participants' accounts, except to the extent such amounts are paid by the Sponsor in a timely manner.

All expenses of the Trustee relating directly to the acquisition and disposition of investments constituting part of the Trust, and all taxes of any kind whatsoever that may be levied or assessed under existing or future laws upon or in respect of the Trust or the income thereof, shall be a charge against and paid from the appropriate Participants' accounts.

Section 8. Directions and Indemnification.

(a) Identity of the Sponsor and the Administrator.

The Trustee shall be fully protected in relying on the fact that the Sponsor and the Administrator under the Plan are the individual or persons named as such above or such other individuals or persons as the Sponsor may notify the Trustee in writing.

(b) Directions from the Sponsor and the Administrator.

Whenever the Sponsor or the Administrator provides a direction to the Trustee, the Trustee shall not be liable for any loss or expense arising from the direction if the direction is contained in a writing provided by any individual whose name has been submitted (and not withdrawn) in writing to the Trustee by the Sponsor or the Administrator unless it is clear on the direction's face that the actions to be taken under the direction would be contrary to the terms of this Agreement. The Trustee may rely without further duty of inquiry on the authority of any such individual to provide direction to the Trustee on behalf of the Sponsor.

For purposes of this Section, such direction may also be made via EDT, facsimile or such other secure electronic means in accordance with procedures agreed to by the Sponsor and the Trustee and, in any such case the Trustee shall be fully protected in relying on such direction as if it were a direction made in writing by the Sponsor.

(c) Directions from Participants.

The Trustee shall not be liable for any loss which arises from any Participant's exercise or non-exercise of rights under the Plan over the assets in the Participants' hypothetical accounts.

(d) Indemnification.

The Sponsor shall indemnify the Trustee against, and hold the Trustee harmless from, any and all Confidential Information 12

Losses that may be incurred by, imposed upon, or asserted against the Trustee by reason of any claim, regulatory proceeding, or litigation arising from any act done or omitted to be done by any individual or person with respect to the Plan or Trust, excepting Losses arising from the Trustee's negligence or bad faith.

The Trustee shall indemnify the Sponsor against, and hold the Sponsor harmless from, any and all Losses that may be incurred by, imposed upon, or asserted against the Sponsor by reason of any claim, regulatory proceeding, or litigation arising from Trustee's negligence or bad faith.

(e) Survival.

The provisions of this Section shall survive the termination of this Agreement.

Section 9. Resignation or Removal of Trustee.

(a) Resignation and Removal.

The Trustee may resign at any time in accordance with the notice provisions set forth below. The Sponsor may remove the Trustee at any time in accordance with the notice provisions set forth below. Notwithstanding the foregoing, upon a Plan Section 9.7 event (as defined in Section 2(a) hereof), the Trustee may not be removed by the Sponsor for one (1) year. If Trustee resigns within one (1) year after a Plan Section 9.7 event, the Sponsor shall name a successor trustee. If a successor trustee is not named in a timely manner, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. Following a Plan Section 9.7 event, any successor trustee must be a corporate entity unrelated to the Sponsor and its affiliates and a financial institution with authority to act in a trustee capacity. For purposes of the foregoing, a corporate entity shall not be considered to be related to the Sponsor and its affiliates solely by reason of its providing services to the Sponsor and its affiliates in the ordinary course of business of such corporate entity.

(b) Termination.

This Agreement may be terminated in full, or with respect to only a portion of the Plan at any time by the Sponsor upon prior written notice to the Trustee in accordance with the notice provisions set forth below.

(c) Notice Period.

In the event either party desires to terminate this Agreement or any services hereunder, the party shall provide at least sixty (60) days prior written notice of the termination date to the other party; provided, however, that the receiving party may agree, in writing, to a shorter notice period.

(d) Transition Assistance.

In the event of termination of this Agreement, if requested by Sponsor, the Trustee shall assist Sponsor in developing a plan for the orderly transition of the Plan data, cash and assets then constituting the Trust and services provided by the Trustee hereunder to Sponsor or its designee. The Trustee shall provide such assistance for a period not extending beyond sixty (60) days from the termination date of this Agreement. The Trustee shall provide to Sponsor, or to any person designated by Sponsor, at a mutually agreeable time, one file of the Plan data prepared and

maintained by the Trustee in the ordinary course of business, in the Trustee's format. The

Trustee may provide other or additional transition assistance as mutually determined for additional fees, which shall be due and payable by the Sponsor prior to any termination of this Agreement.

(e) Failure to Appoint Successor.

If, by the termination date, the Sponsor has not notified the Trustee in writing as to the individual or entity to which the assets and cash are to be transferred and delivered, the Trustee may bring an appropriate action or proceeding for leave to deposit the assets and cash in a court of competent jurisdiction. The Trustee shall be reimbursed by the Sponsor for all costs and expenses of the action or proceeding including, without limitation, reasonable attorneys' fees and disbursements.

Section 10. Successor Trustee.

(a) Appointment.

If the office of Trustee becomes vacant for any reason, the Sponsor may in writing appoint a successor trustee under this

Agreement. The successor trustee shall have all of the rights, powers, privileges, obligations, duties, liabilities, and immunities granted to the Trustee under this Agreement. The successor trustee and predecessor trustee shall not be liable for the acts or omissions of the other with respect to the Trust.

(b) Acceptance.

As of the date the successor trustee accepts its appointment under this Agreement, title to and possession of the Trust assets shall immediately vest in the successor trustee without any further action on the part of the predecessor trustee, except as may be required to evidence such transition. The predecessor trustee shall execute all instruments and do all acts that may be reasonably necessary and requested in writing by the Sponsor or the successor trustee to vest title to all Trust assets in the successor trustee or to deliver all Trust assets to the successor trustee.

(c) Corporate Action.

Any successor of the Trustee or successor trustee, either through sale or transfer of the business or trust department of the Trustee or successor trustee, or through reorganization, consolidation, or merger, or any similar transaction of either the Trustee or successor trustee, shall, upon consummation of the transaction, become the successor trustee under this Agreement.

Section 11. Resignation, Removal, and Termination Notices.

All notices of resignation, removal, or termination under this Agreement must be in writing and mailed to the party to which the notice is being given by certified or registered mail, return receipt requested, to the Sponsor c/o Director of Benefits, Barnes Group Inc., 123 Main Street, Bristol, Connecticut 06010, and to the Trustee c/o Fidelity Investments, Contracts Development & Negotiation, 82 Devonshire Street, MM1M, Boston, Massachusetts 02109, or to such other addresses as the parties have notified each other of in the foregoing manner.

Section 12. Duration .

This Trust shall continue in effect without limit as to time, subject, however, to the provisions of this Agreement relating to amendment, modification, and termination thereof.

Section 13. Insolvency of Sponsor.

(a) Trustee shall cease disbursement of funds for payment of benefits to Participants if the Sponsor is Insolvent.

(b) All times during the continuance of this Trust, the principal and income of the Trust shall be subject to claims of general creditors of the Sponsor under federal and state law as set forth below.

(i) The Board of Directors and the Chief Executive Officer of the Sponsor shall have the duty to inform Trustee in writing of Sponsor's Insolvency. If a person claiming to be a creditor of the Sponsor alleges in writing to Trustee that Sponsor has become Insolvent, Trustee shall determine whether Sponsor is Insolvent and, pending such determination, Trustee shall discontinue disbursements for payment of benefits to Participants.

(ii) Unless Trustee has actual knowledge of Sponsor's Insolvency, or has received notice from Sponsor or a person claiming to be a creditor alleging that Sponsor is Insolvent, Trustee shall have no duty to inquire whether Sponsor is Insolvent. Trustee may in all events rely on such evidence concerning Sponsor's solvency as may be furnished to Trustee and that provides Trustee with a reasonable basis for making a determination concerning Sponsor's solvency.

(iii) If at any time Trustee has determined that Sponsor is Insolvent, Trustee shall discontinue disbursements for payments to

Participants and shall hold the assets of the Trust for the benefit of Sponsor's general creditors. Nothing in this Agreement shall in any way diminish any rights of Participants to pursue their rights as general creditors of Sponsor with respect to benefits due under the Plan or otherwise.

(iv) Trustee shall resume disbursement for the payment of benefits to Participants in accordance with this Agreement only after Trustee has determined that Sponsor is not Insolvent (or is no longer Insolvent).

(c) Provided that there are sufficient assets, if Trustee discontinues the payment of benefits from the Trust pursuant to (a) hereof and subsequently resumes such payments, the first payment following such discontinuance shall include the aggregate amount of all payments that would have been paid from the Trust if there had been no discontinuance, less the aggregate amount of any payments made to Participants by Sponsor in lieu of the payments provided for hereunder during any such period of discontinuance.

Section 14. Amendment or Modification.

This Agreement may be amended or modified at any time and from time to time only by an instrument executed by both the Sponsor and the Trustee. The individuals authorized to sign such instrument on behalf of the Sponsor shall be those authorized by the Sponsor.

Section 15. Electronic Services .

(a) The Trustee may provide communications and Electronic Services via Confidential Information 15

electronic media, including, but not limited to NetBenefits, eWorkplace and Fidelity Plan Sponsor WebStation. The Sponsor agrees to use such Electronic Services only in the course of reasonable administration of or participation in the Plan and to keep confidential and not alter, publish, copy, broadcast, retransmit, reproduce, frame-in, link to, commercially exploit or otherwise redisseminate the Electronic Services, any content associated therewith, or any portion thereof (including, without limitation, any trademarks and service marks associated therewith), without the written consent of the Trustee. Notwithstanding the foregoing, the Trustee acknowledges that certain Electronic Services may, by their nature, be intended for non-commercial, personal use by Participants with respect to their participation in the Plan, or for their other retirement or employee benefit planning purposes, and certain content may be intended or permitted to be modified by the Sponsor in connection with the administration of the Plan. In such cases, the Trustee will notify the Sponsor of such fact, and any requirements or guidelines associated with such usage or modification no later than the time of initial delivery of such Electronic Services. To the extent permission is granted to make Electronic Services available to administrative personnel designated by the Sponsor, it shall be the responsibility of the Sponsor to keep the Trustee informed as to which of the Sponsor personnel are authorized to have such access. Except to the extent otherwise specifically agreed by the parties, the Trustee reserves the right, upon notice when reasonably feasible, to modify or discontinue Electronic Services, or any portion thereof, at any time.

(b) Without limiting the responsibilities of the Trustee or the rights of the Sponsor stated elsewhere in this Agreement, Electronic Services shall be provided to the Sponsor without acceptance of legal liability related to or arising out of the electronic nature of the delivery or provision of such Services. To the extent that any Electronic Services utilize Internet services to transport data or communications, the Trustee will take, and the Sponsor agrees to follow, reasonable security precautions. However, the Trustee disclaims any liability for interception of any such data or communications. The Trustee reserves the right not to accept data or communications transmitted electronically or via electronic media by the Sponsor or a third party if it determines that the method of delivery does not provide adequate data security, or if it is not administratively feasible for the Trustee to use the data security provided. The Trustee shall not be responsible for, and makes no warranties regarding access, speed or availability of Internet or network services, or any other service required for electronic communication, nor does the Trustee make any warranties, express or implied, and specifically disclaims all warranties of merchantability, fitness for a particular purpose, or non-infringement. The Trustee shall not be responsible for any loss or damage related to or resulting from any changes or modifications to the Electronic Services made in violation of this Agreement.

(c) The Sponsor acknowledges that certain web sites through which the Electronic Services are accessed may be protected by passwords or require a login and the Sponsor agrees that neither the Sponsor nor, where applicable, Participants, to the Sponsor's actual knowledge will obtain or attempt to obtain unauthorized access to such Services or to any other protected materials or information, through any means not intentionally made available by the Trustee for the specific use of the Sponsor. To the extent that a PIN is necessary for access to the Electronic Services, the Sponsor and/or its Participants, as the case may be, are solely responsible for all activities that occur in connection with such PINs.

Section 16. Assignment .

This Agreement, and any of its rights and obligations hereunder, may not be assigned by any party without the prior written consent of the other party(ies), which consent shall not be unreasonably withheld. Notwithstanding the foregoing, Trustee may assign this Agreement in whole or in part, and any of its rights and obligations hereunder, to a subsidiary or affiliate of Trustee without consent of the Sponsor. All provisions in this Agreement shall extend to and be

Confidential Information 16

binding upon the parties hereto and their respective successors and permitted assigns.

Section 17. Force Majeure .

No party shall be deemed in default of this Agreement to the extent that any delay or failure in performance of its obligation(s) results, without its fault or negligence, from any cause beyond its reasonable control, such as acts of God, acts of civil or military

authority, acts of terrorism, whether actual or threatened, quarantines, embargoes, epidemics, war, riots, insurrections, fires, explosions, earthquakes, floods, unusually severe weather conditions, power outages or strikes. This clause shall not excuse any of the parties to the Agreement from any liability which results from failure to have in place reasonable disaster recovery and safeguarding plans adequate for protection of all data each of the parties to the Agreement are responsible for maintaining for the Plan and Trust.

Section 18. Confidentiality; Safeguarding of Data .

(a) Confidential Information . In connection with this Agreement, each of the parties has disclosed and may continue to disclose to the other party information that relates to the disclosing party's business operations, financial condition, employees, former employees, eligible dependents and beneficiaries of such employees and former employees, customers, business associates, products, services or technical knowledge. Except as otherwise specifically agreed in writing by the parties, Trustee and Sponsor each agree that from and after the Effective Date (i) all information communicated to it before or after the Effective Date by the other and identified as confidential or proprietary, (ii) all information identified as confidential or proprietary to which it has access in connection with the services, whether such access was before or after the Effective Date, (iii) all information communicated to it that reasonably should have been understood by the receiving party to be proprietary and confidential to the disclosing party including without limitation technical, trade secret or business information, financial information, business or marketing strategies or plans, product development or customer information, and (iv) the terms and conditions of this Agreement (collectively, the "Confidential Information") will be used only in accordance with this Agreement.

(b) Ownership of Information/Safeguarding Information . Each party's Confidential Information will remain the property of that party except as otherwise expressly provided in this Agreement. Each party will use at least the same degree of care to safeguard and to prevent disclosing to third parties the Confidential Information of the other as it employs to avoid unauthorized disclosure or publication of its own information (or information of its customers) of a similar nature, and in any event, no less than reasonable care. Each party may use and disclose relevant aspects of the other party's Confidential Information to its employees, affiliates, subcontractors and agents to the extent such disclosure is reasonably necessary for the performance of its obligations under this Agreement or the enforcement of its rights under this Agreement; provided, however, that the disclosing party shall ensure that such parties agree to be bound by confidentiality provisions at least as restrictive as those set forth in this Section 18; and provided further, however, that in no event shall Sponsor disclose such Confidential Information to direct competitors of the Trustee. Each party will be responsible for any improper disclosure of Confidential Information by such party's employees, affiliates, subcontractors or agents. Neither party will (i) make any use or copies of the Confidential Information of the other except as contemplated by this Agreement, or (ii) sell, assign, lease or otherwise commercially exploit the Confidential Information (or any derivative works thereof) of the other party. Neither party will withhold the Confidential Information of the other party (including in the case of the Sponsor, the Personal Data) or refuse for any reason (including due to the other party's actual or alleged breach of this Agreement) to promptly return to the other party its Confidential Information (including copies thereof) if requested to do so.

(c) Return of Information . Upon expiration or any termination of this Agreement and completion of a party's obligations under this Agreement, each party will return or destroy, as the owner may direct, all documentation in any medium that contains or refers to the other party's Confidential Information; however, each party may retain copies of Confidential Information of the other party solely to the extent required for compliance with applicable professional standards and applicable law.

(d) Exceptions to Confidential Treatment . Sections 18(a), (b) and (c) shall not apply to any particular information that either party can demonstrate (i) was, at the time of disclosure to it (a) already known to the receiving party (and not subject to a pre-existing confidentiality agreement) or (b) publicly known; (ii) after disclosure to it, becomes publicly known through no fault of the receiving party; (iii) was received after disclosure to it from a third party who did not indicate that the information was to be treated as confidential in connection with the disclosure or (iv) was independently developed by the receiving party without use of the Confidential Information of the disclosing party. In addition, a party will not be considered to have breached its obligations under this Section 18 for disclosing Confidential Information of the other party to the extent required to satisfy any valid subpoena, court order, litigation or regulatory request, or any other legal requirement of a competent governmental authority, provided that following receipt of any such request, or making a determination that disclosure is legally required, and to the extent that it may legally do so, such party advises the other party prior to making such disclosure in order that the other party may object to such disclosure, take action to ensure confidential treatment of the Confidential Information, or take such other action as it considers appropriate to protect the Confidential Information. In addition, Trustee will not be considered to have breached its obligations under this Section 18 for using or disclosing Confidential Information to the extent Trustee or an affiliate of the Trustee is specifically authorized by an individual to use that individual's personal information (including plan-related and account-related information applicable to that individual) in connection with any other Trustee products or services.

(e) No Duty to Disclose . Nothing contained in this Section 18 will be construed as obligating a party to disclose its Confidential Information to the other party, or as granting to or conferring on a party, expressly or impliedly, any rights or license to

the Confidential Information of the other party provided that Trustee shall be excused from its obligations to perform hereunder to the extent Sponsor fails to provide any such information as is reasonably necessary for Trustee to perform the services and otherwise meet its obligations hereunder.

(f) Personal Data . In order to fulfill its obligations under this Agreement, Trustee may receive in connection with this Agreement or the services provided hereunder personal data, including compensation, benefits, tax, marital/family status and other similar information about participants ("Personal Data"). Trustee acknowledges that it is receiving Personal Data only in connection with the performance of the services and

Trustee will not use or disclose Personal Data without the permission of the Sponsor for any purpose other than as permitted in this Agreement and in fulfilling its obligations under this Agreement, unless disclosure is required or permitted under this Agreement or by applicable law. With respect to Personal Data it receives under this Agreement, Trustee agrees to (i) safeguard Personal Data in accordance with its privacy policy, and (ii) exercise at least the same standard of care in safeguarding such Personal Data that it uses to protect the personal data of its own employees. Notwithstanding the foregoing, Sponsor may monitor Trustee's interactions with participants. Nothing in this Agreement shall affect in any way other product or service arrangements entered into separately by Trustee or its affiliates and the Sponsor and/or participants.

(i) Foreign Data Protection Laws . Sponsor is responsible for any and all activities necessary to ensure compliance with applicable laws regarding data protection outside of the United States and for ensuring that the transfer of Personal Data to Trustee is in compliance with such laws. Sponsor will not transfer any Personal Data to Trustee unless Sponsor has satisfied

such laws, such as through the use of consents. Trustee will be entitled to presume that, unless notified to the contrary by Sponsor, activities necessary to ensure compliance with such laws have been satisfied by Sponsor with respect to all Personal Data furnished to Trustee hereunder. Trustee will have no obligation to process any Personal Data if Trustee is on notice that compliance with such laws has not been met.

Section 19. General .

(a) Performance by Trustee, its Agents or Affiliates .

The Sponsor acknowledges and authorizes that the services to be provided under this Agreement shall be provided by the Trustee and its agents or affiliates, and that certain of such services may be provided pursuant to one or more other contractual agreements or relationships.

(b) Entire Agreement .

This Agreement, together with the Schedules referenced herein, contains all of the terms agreed upon between the parties with respect to the subject matter hereof. This Agreement supersedes any and all other agreements, written or oral, made by the parties with respect to the services.

(c) Waiver .

No waiver by either party of any failure or refusal to comply with an obligation hereunder shall be deemed a waiver of any other obligation hereunder or subsequent failure or refusal to comply with any other obligation hereunder.

(d) Successors and Assigns .

The stipulations in this Agreement shall inure to the benefit of, and shall bind, the successors and assigns of the respective parties.

(e) Partial Invalidity .

If any term or provision of this Agreement or the application thereof to any person or circumstances shall, to any extent, be invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

(f) Section Headings .

The headings of the various sections and subsections of this Agreement have been inserted only for the purposes of convenience and are not part of this Agreement and shall not be deemed in any manner to modify, explain, expand or restrict any of the provisions of this Agreement.

(g) Survival .

Trustee's and Sponsor's respective obligations under this Agreement, which by their nature would continue beyond the termination of this Agreement, including but not limited to those contained in

Sections and/or subsections titled "Inspection and Audit," "Indemnification," and "Confidentiality; Safeguarding of Data" shall survive any termination of the Agreement.

Section 20. Situs of Trust Assets .

The Sponsor and the Trustee agree that no assets of the Trust shall be located or transferred outside of the United States.

Section 21. Governing Law .

(a) Massachusetts Law Controls .

This Agreement is being made in the Commonwealth of Massachusetts, and the Trust shall be administered as a Massachusetts trust. The validity, construction, effect, and administration of this Agreement shall be governed by and interpreted in accordance with the laws of the Commonwealth

of Massachusetts, except to the extent those laws are superseded under section 514 of ERISA.

(b) Trust Agreement Controls .

The Trustee is not a party to the Plan, and in the event of any conflict between the provisions of the Plan and the provisions of this Agreement, the provisions of this Agreement shall control.

IN WITNESS WHEREOF , the parties hereto have caused this Agreement to be executed by their duly authorized officers as of the day and year first above written. By signing below, the undersigned represent that they are authorized to execute this Agreement on behalf of the respective parties. Each party may rely without duty of inquiry on the foregoing representation.

BARNES GROUP INC.

By: /s/ Dawn N. Edwards Authorized Signatory

Name: Dawn N. Edwards

Title: Sr. Vice President, Human Resources Date: September 1, 2009

FIDELITY MANAGEMENT TRUST COMPANY

By: /s/ Stephanie Nick

FMTC Authorized Signatory Name: Stephanie Nick

Date: September 8, 2009

SCHEDULES

Schedule "A" Recordkeeping and Administrative Services

Administration

- Establishment and maintenance of Participant account and election percentages.
- Maintenance of the Plan investment options set forth on Schedule "C".
- Maintenance of the money classifications set forth in the Plan Administration Manual.
- The Trustee will provide the recordkeeping and administrative services set forth on this Schedule "A" or as otherwise agreed to in writing (or by means of a secure electronic medium) between Sponsor and Trustee. The Trustee may unilaterally add or enhance services, provided there is no impact on the fees set forth in Schedule "B."

A) **Participant Services**

1) Participant service representatives are available each Business Day at the times set forth in the Plan Administration Manual via toll free telephone service for Participant inquiries and transactions.
2) Through the automated voice response system and on-line account access via the world wide web, Participants have virtually 24 hour account inquiry. Through on-line account access via the world wide web, Participants also have virtually 24 hour transaction capabilities.
3) For security purposes, all calls are recorded. In addition, several levels of security are available including the verification of a PIN or such other personal identifier as may be agreed to from time to time by the Sponsor and the Trustee.
4) The following services are available via the telephone or such other electronic means as may be agreed upon from time to time by the Sponsor and the Trustee:
   - Process Participant enrollments, in accordance with the procedures set forth in the Plan Administration Manual.
   - Provide Plan investment option information.
   - Provide and maintain information and explanations about Plan provisions.
   - Respond to requests for literature.
   - Maintain and process changes to Participants' contribution allocations for all money sources, if applicable.
   - Process exchanges (transfers) between investment options on a daily basis.

B) **Plan Accounting**

1) Process consolidated payroll contributions according to the Sponsor's payroll frequency via Plan Sponsor Webstation or other medium permitted by the Trustee. The data format will be provided by the Trustee.

2) Maintain and update employee data necessary to support Plan administration. The data will be submitted according to payroll frequency.
3) Provide daily Plan and Participant level accounting for all Plan investment options.
4) Provide daily Plan and Participant level accounting for all money classifications for the Plan.
5) Audit and reconcile the Plan and Participant accounts daily.
6) Reconcile and process Participant withdrawal requests and distributions as approved and directed by the Sponsor. All requests are paid based on the current market values of Participants' accounts, not advanced or estimated values. A distribution report will accompany each check.
7) Maintain and process changes to Participants' existing hypothetical investment mix elections.

C) **Participant Reporting**

1) Provide confirmation to Participants of all Participant initiated transactions either online or via the mail. Online confirms are generated upon submission of a transaction and mail confirms are available by mail generally within five (5) calendar days of the transaction.
2) Provide Participant statements in accordance with the procedures set forth in the Plan Administration Manual.

D) **Plan Reporting**

1) Prepare, reconcile and deliver a monthly Trial Balance Report presenting all money classes and investments. This report is based on the market value as of the last business day of the month. The report will be delivered not later than twenty (20) calendar days after the end of each month in the absence of unusual circumstances.

E) **Government Reporting**

1) Provide federal and state tax reporting and withholding on benefit payments made to Participants and beneficiaries in accordance with this Agreement.
2) Provide Mutual Fund tax reporting (Forms 1099 DIV. and 1099-B) to the Sponsor.

F) **Communication & Education Services**

1) Design, produce and distribute a customized comprehensive communications program for Participants. The program may include multimedia informational materials, investment education and planning materials, access to Fidelity's homepage on the internet and STAGES magazine. Additional fees for such services may apply as mutually agreed upon between Sponsor and Trustee.

G) **Other**

1) Plan Sponsor Webstation : The Fidelity Participant Recordkeeping System is available on-line to the Sponsor via the Plan Sponsor Webstation. PSW is a graphical, Windows-based application that provides current Plan and Participant- level information, including indicative data, account balances, activity and history. The Sponsor agrees that PSW access will not be granted to third parties without the prior consent of the Trustee.

Schedule "B" Fee Schedule

Annual Recordkeeping Fee: $10,000.00 per year billed and payable on a quarterly basis.

Non-Fidelity Mutual Funds: Payments made directly to Fidelity Investments Institutional Operations Company, Inc. (FIIOC) or its affiliates by Non-Fidelity Mutual Fund vendors shall be posted and updated quarterly on Plan Sponsor Webstation at https://psw.fidelity.com or a successor site.

Other Fees :

- Other Fees: separate charges, to be negotiated by the Sponsor and the Trustee, may apply for extraordinary expenses resulting from large numbers of simultaneous manual transactions, from errors not caused by the Trustee, reports not contemplated in this Agreement, corporate actions, audit support in excess of the standard and customary hours allotted for the annual financial statement audit, or the provision of communications materials in hard copy which are also accessible to Participants via electronic services in the event that the provision of such material in hard copy would result in an additional expense deemed to be material. The Sponsor may withdraw reasonable administrative fees from the Trust by written direction to the Trustee.

Note : These fees are based on the Plan characteristics, asset configuration, net cash flow, fund selection and number of Participants existing as of the date of this Agreement. In the event that one or more of these factors changes significantly, fees may be subject to change after discussion and mutual agreement of the parties. Significant changes in the legal and regulatory environment may also prompt discussion and potential fee changes.

BARNES GROUP INC. FIDELITY MANAGEMENT TRUST COMPANY

Schedule "C" Investment Options

In accordance with Section 5(b), the Sponsor hereby directs the Trustee that Participants' individual hypothetical accounts may be invested in the following investment options:

- Fidelity Equity Income Fund
- Fidelity Blue Chip Growth Fund
- Fidelity Diversified International Fund
- Fidelity Small Cap Independence Fund
- Fidelity Government Money Market Fund
- Fidelity Freedom 2010 Fund ®
- Fidelity Freedom 2020 Fund ®
- Fidelity Freedom 2030 Fund ®
- Fidelity Freedom 2040 Fund ®
- Fidelity Freedom 2050 Fund ®
- Fidelity Freedom Income Fund ®
- Spartan ® Extended Market Index Fund – Investor Class
- Spartan ® U.S. Equity Index Fund – Investor Class
- Eaton Vance Structured Emerging Markets Fund – Class I
- Dreyfus Bond Market Index Fund – Basic Shares
- Munder Mid-Cap Core Growth – Class Y

The Sponsor hereby directs the Trustee to add any additional Fidelity Freedom Funds ®, in the "10" series, as investment options as they are launched, such funds being available as of the open of trading on the NYSE on their respective inception dates or as soon thereafter as administratively possible, unless otherwise directed by the Sponsor.

The Sponsor hereby directs that the investment option referred to in the last sentence of Section 5(c) shall be the Fidelity Freedom Income Fund.

BARNES GROUP INC.

By: /s/ Dawn N. Edwards9/1/2009 Authorized Signatory Date

Schedule "D" Operational Guidelines for Non -Fidelity Mutual Funds

Pricing

By 7:00 p.m. Eastern Time ("ET") each Business Day, the Non-Fidelity Mutual Fund Vendor ("Fund Vendor") will input the following information ("Price Information") into the Fidelity Participant Recordkeeping System ("FPRS") via the remote access price screen that FIIOC, an affiliate of the Trustee, has provided to the Fund Vendor: (1) the NAV for each Fund at the Close of Trading, (2) the change in each Fund's NAV from the Close of Trading on the prior Business Day, and (3) in the case of an income fund or funds, the daily accrual for interest rate factor ("mil rate"). FIIOC must receive Price Information each Business Day. If on any Business Day the Fund Vendor does not provide such Price Information to FIIOC, FIIOC shall pend all associated transaction activity in the FPRS until the relevant Price Information is made available by Fund Vendor.

Trade Activity and Wire Transfers

By 7:00 a.m. ET each Business Day following Trade Date ("Trade Date Plus One"), FIIOC will provide, via facsimile, to the Fund Vendor a consolidated report of net purchase or net redemption activity that occurred in each of the Funds up to 4:00 p.m. ET on the prior Business Day. The report will reflect the dollar amount of assets and shares to be invested or withdrawn for each Fund.

FIIOC will transmit this report to the Fund Vendor each Business Day, regardless of processing activity. In the event that data contained in the 7:00 a.m. ET facsimile transmission represents estimated trade activity, FIIOC shall provide a final facsimile to the Fund Vendor by no later than 9:00 a.m. ET. Any resulting adjustments shall be processed by the Fund Vendor at the net asset value for the prior Business Day.

The Fund Vendor shall send via regular mail to FIIOC transaction confirms for all daily activity in each of the Funds. The Fund Vendor shall also send via regular mail to FIIOC, but no later than the fifth Business Day following calendar month close, a monthly statement for each Fund. FIIOC agrees to notify the Fund Vendor of any balance discrepancies within twenty (20) Business Days of receipt of the monthly statement.

For purposes of wire transfers, FIIOC shall transmit a daily wire for aggregate purchase activity and the Fund Vendor shall transmit a daily wire for aggregate redemption activity, in each case including all activity across all Funds occurring on the same day.

Prospectus Delivery

FIIOC shall be responsible for the timely delivery of Fund prospectuses and periodic Fund reports ("Required Materials") to Participants, and shall retain the services of a third-party vendor to handle such mailings. The Fund Vendor shall be responsible for all materials and production costs, and hereby agrees to provide the Required Materials to the third-party vendor selected by FIIOC. The Fund Vendor shall bear the costs of mailing annual Fund reports to Participants. FIIOC shall bear the costs of mailing prospectuses to Participants.

Proxies

The Fund Vendor shall be responsible for all costs associated with the production of proxy materials. FIIOC shall retain the services of a third-party vendor to handle proxy solicitation mailings and vote tabulation. Expenses associated with such services shall be billed directly the Fund Vendor by the third-party vendor.

Participant Communications

The Fund Vendor shall provide internally prepared fund descriptive information approved by the Funds' legal counsel for use by FIIOC in its written Participant communication materials. FIIOC shall utilize historical performance data obtained from third-party vendors (currently Morningstar, Inc., FACTSET Research Systems and Lipper Analytical Services) in telephone conversations with Participants and in quarterly Participant statements. The Sponsor hereby consents to FIIOC's use of such materials and acknowledges that FIIOC is not responsible for the accuracy of third-party information. FIIOC shall seek the approval of the Fund Vendor prior to retaining any other third-party vendor to render such data or materials under this Agreement.

Compensation

FIIOC shall be entitled to payments as set forth in a separate agreement with the Fund Vendor. Confidential Information 28

[Barnes Group Inc. Letterhead]

Erin Wheeler
FESCO Business Compliance, Attn: Contracts. Fidelity Investments
82 Devonshire Street, MM3H Boston, MA 02109

Re: Investment Instructions for Rabbi Trust Assets

Dear Ms. Wheeler:

The Participants under the Barnes Group 2009 Deferred Compensation Plan (“Plan”) have the right to direct the investment of their Plan account in hypothetical investment options, which are currently based on Mutual Funds. Fidelity Management Trust Company has agreed pursuant to a Trust Agreement with Barnes Group Inc. September 1, 2009 to receive such Participant directions.

The Sponsor hereby directs the Trustee to invest funds contributed to the rabbi trust in a manner which corresponds directly to elections made by Participants under the Plan. The Sponsor also hereby directs the Trustee to vote the shares of Fidelity and Non- Fidelity Mutual Funds and vote and/or tender shares of Sponsor Stock in the same manner as directed by the Participants for the

corresponding hypothetical shares credited to Participants’ accounts under the Plan. These procedures will remain in effect until a revised instruction letter is provided by the Sponsor and accepted by the Trustee.

Sincerely,

/s/ Dawn N. Edwards Authorized Signatory

DNE/rs

BARNES GROUP 2009
DEFERRED COMPENSATION PLAN

IMPORTANT NOTE

This document has not been approved by the Department of Labor, Internal Revenue Service or any other governmental entity. An adopting Employer must determine whether the Plan is subject to the Federal securities laws and the securities laws of the various states. An adopting Employer may not rely on this document to ensure any particular tax consequences or to ensure that the Plan is "unfunded and maintained primarily for the purpose of providing deferred compensation to a select group of management or highly compensated employees" under Title I of the Employee Retirement Income Security Act of 1974, as amended, with respect to the Employer's particular situation. Fidelity Employer Services Company, its affiliates and employees cannot provide you with legal advice in connection with the execution of this document. This document should be reviewed by the Employer's attorney prior to execution.

TABLE OF CONTENTS

PREAMBLE

ARTICLE 1 - GENERAL
1.1 Plan
1.2 Effective Dates
1.3 Amounts Not Subject to Code Section 409A

ARTICLE 2 - DEFINITIONS
2.1 Account
2.2 Administrator
2.3 Adoption Agreement
2.4 Beneficiary
2.5 Board or Board of Directors
2.6 Bonus
2.7 Change in Control
2.8 Code

2.9 Compensation
2.10 Director
2.11 Disability
2.12 Eligible Employee
2.13 Employer
2.14 ERISA
2.15 Identification Date
2.16 Key Employee
2.17 Participant
2.18 Plan
2.19 Plan Sponsor
2.20 Plan Year
2.21 Related Employer 2.22 Retirement
2.23 Separation from Service 2.24 Unforeseeable Emergency
2.25 Valuation Date 2.26 Years of Service

ARTICLE 3 - PARTICIPATION
3.1 Participation
3.2 Termination of Participation

ARTICLE 4 - PARTICIPANT ELECTIONS
4.1 Deferral Agreement
4.2 Amount of Deferral
4.3 Timing of Election to Defer
4.4 Election of Payment Schedule and Form of Payment

ARTICLE 5 - EMPLOYER CONTRIBUTIONS
5.1 Matching Contributions
5.2 Other Contributions

ARTICLE 6 - ACCOUNTS AND CREDITS
6.1 Establishment of Account
6.2 Credits to Account

ARTICLE 7 - INVESTMENT OF CONTRIBUTIONS

7.1 Investment Options
7.2 Adjustment of Accounts

ARTICLE 8 - RIGHT TO BENEFITS
8.1 Vesting
8.2 Death
8.3 Disability

ARTICLE 9 - DISTRIBUTION OF BENEFITS
9.1 Amount of Benefits
9.2 Method and Timing of Distributions
9.3 Unforeseeable Emergency
9.4 Payment Election Overrides
9.5 Cashouts of Amounts Not Exceeding Stated Limit
9.6 Required Delay in Payment to Key Employees
9.7 Change in Control
9.8 Permissible Delays in Payment
9.9 Permitted Acceleration of Payment

ARTICLE 10 - AMENDMENT AND TERMINATION

10.1 Amendment by Plan Sponsor
10.2 Plan Termination Following Change in Control or Corporate Dissolution
10.3 Other Plan Terminations

ARTICLE 11 - THE TRUST
11.1 Establishment of Trust
11.2 Grantor Trust
11.3 Investment of Trust Funds

ARTICLE 12 - PLAN ADMINISTRATION
12.1 Powers and Responsibilities of the Administrator
12.2 Claims and Review Procedures
12.3 Plan Administrative Costs

ARTICLE 13 - MISCELLANEOUS
13.1 Unsecured General Creditor of the Employer
13.2 Employer's Liability
13.3 Limitation of Rights

13.4 Anti-Assignment
13.5 Facility of Payment
13.6 Notices
13.7 Tax Withholding
13.8 Indemnification
13.9 Successors
13.10 Disclaimer
13.11 Governing Law
13.12 Plan Addendums

PREAMBLE

The Plan is intended to be a “plan which is unfunded and is maintained by an employer primarily for the purpose of providing deferred compensation for a select group of management or highly compensated employees” within the meaning of Sections 201(2), 301(a)(3) and 401(a)(1) of the Employee Retirement Income Security Act of 1974, as amended, or an “excess benefit plan” within the meaning of Section 3(36) of the Employee Retirement Income Security Act of 1974, as amended, or a combination of both. The Plan is further intended to conform with the requirements of Internal Revenue Code Section 409A and the final regulations issued thereunder and shall be interpreted, implemented and administered in a manner consistent therewith.

ARTICLE 1 - GENERAL

1.1 Plan . The Plan will be referred to by the name specified in the Adoption Agreement.

1.2 Effective Dates.

(a) Original Effective Date . The Original Effective Date is the date as of which the Plan was initially adopted.

(b) Amendment Effective Date . The Amendment Effective Date is the date specified in the Adoption Agreement as of which the Plan is amended and restated. Except to the extent otherwise provided herein or in the Adoption Agreement, the Plan shall apply to amounts deferred and benefit payments made on or after the Amendment Effective Date.

(c) Special Effective Date . A Special Effective Date may apply to any given provision if so specified in

Appendix A of the Adoption Agreement. A Special Effective Date will control over the Original Effective Date or Amendment Effective Date, whichever is applicable, with respect to such provision of the Plan.

1.3 Amounts Not Subject to Code Section 409A

Except as otherwise indicated by the Plan Sponsor in Section 1.01 of the Adoption Agreement, amounts deferred before January 1, 2005 that are earned and vested on December 31, 2004 will be separately accounted for and administered in accordance with the terms of the Plan as in effect on December 31, 2004.

ARTICLE 2 -DEFINITIONS

Pronouns used in the Plan are in the masculine gender but include the feminine gender unless the context clearly indicates otherwise. Wherever used herein, the following terms have the meanings set forth below, unless a different meaning is clearly required by the context:

2.1 " **Account** " means an account established for the purpose of recording amounts credited on behalf of a Participant and any income, expenses, gains, losses or distributions included thereon. The Account shall be a bookkeeping entry only and shall be utilized solely as a device for the measurement and determination of the amounts to be paid to a Participant or to the Participant's Beneficiary pursuant to the Plan.

2.2 " **Administrator** " means the person or persons designated by the Plan Sponsor in Section 1.05 of the Adoption Agreement to be responsible for the administration of the Plan. If no Administrator is designated in the Adoption Agreement, the Administrator is the Plan Sponsor.

2.3 " **Adoption Agreement** " means the agreement adopted by the Plan Sponsor that establishes the Plan.

2.4 " **Beneficiary** " means the persons, trusts, estates or other entities entitled under Section 8.2 to receive benefits under the Plan upon the death of a Participant.

2.5 " **Board** " or " **Board of Directors** " means the Board of Directors of the Plan Sponsor.

2.6 " **Bonus** " means an amount of incentive remuneration payable by the Employer to a Participant.

2.7 " **Change in Control** " means a "change in control event" within the meaning of Treasury Regulation 1.409A-3(i)(5)(i) & (ii) that occurs with respect to a Participant on or after the date on which an event involving the Plan Sponsor that is described in Section 9.7(a), (b), (c) or (d) occurs.

2.8 " **Code** " means the Internal Revenue Code of 1986, as amended.

2.9 " **Compensation** " has the meaning specified in Section 3.01 of the Adoption Agreement.

2.10 " **Director** " means a non-employee member of the Board who has been designated by the Employer as eligible to participate in the Plan.

2.11 " **Disability** " means that the Social Security Administration has determined that a Participant is disabled under the Social Security Act. A Participant shall be considered as incurring a Disability on the last day of the month in which the Participant first becomes eligible for and begins to receive Social Security disability benefits.

2.12 " **Eligible Employee** " means an employee of the Employer who satisfies the requirements in Section 2.01 of the Adoption Agreement.

2.13 " **Employer** " means the Plan Sponsor and any other entity which is authorized by the Plan Sponsor to participate in and, in fact, does adopt the Plan.

2.14 " **ERISA** " means the Employee Retirement Income Security Act of 1974, as amended.

2.15 " **Identification Date** " means the date as of which Key Employees are determined which is specified in Section 1.06 of the Adoption Agreement.

2.16 " **Key Employee** " means an employee who satisfies the conditions set forth in Section 9.6.

2.17 " **Participant** " means an Eligible Employee or Director who commences participation in the Plan in accordance with Article 3.

2.18 " **Plan** " means the unfunded plan of deferred compensation set forth herein, including the Adoption Agreement and any trust agreement, as adopted by the Plan Sponsor and as amended from time to time.

2.19 " **Plan Sponsor** " means the entity identified in Section 1.03 of the Adoption Agreement or any successor by merger, consolidation or otherwise.

2.20 " **Plan Year** " means the period identified in Section 1.02 of the Adoption Agreement.

2.21 " **Related Employer** " means the Employer and (a) any corporation that is a member of a controlled group of corporations as defined in Code Section 414(b) that includes the Employer and (b) any trade or business that is under common control as defined in Code Section 414(c) that includes the Employer.

2.22 " **Retirement** " has the meaning specified in 6.01(f) of the Adoption Agreement.

2.23 " **Separation from Service** " means the date that the Participant retires or otherwise has a termination of employment (other than by death) with respect to all entities comprising the Related Employer. A Separation from Service does not occur if the Participant is on military leave, sick leave or other bona fide leave of absence if the period of leave does not exceed six months or such longer period during which the Participant's right to re-employment is provided by statute or contract. If the period of leave exceeds six months and the Participant's right to re-employment is not provided either by statute or contract, a Separation from Service will be deemed to have occurred on the first day following the six-month period. If the period of leave is due to any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than six months, where the impairment causes the Participant to be unable to perform the duties of his or her position of employment or any substantially similar position of employment, a 29 month period of absence shall be substituted for the six month period.

Whether a termination of employment has occurred is based on whether the facts and circumstances indicate that the Related Employer and the Participant reasonably anticipated that no further services would be performed after a certain date or that the level of bona fide services the Participant would perform after such date (whether as an employee or as an independent contractor) would permanently decrease to no more than 20 percent of the average level of bona fide services performed (whether as an employee or an independent contractor) over the immediately preceding 36 month period (or the full period of services to the Related Employer if the employee has been providing services to the Related Employer for less than 36 months.

The foregoing will be interpreted, and all determinations of whether a Separation from Service has occurred will be made, in a manner consistent with Code Section 409A and the final regulations thereunder.

2.24 " **Unforeseeable Emergency** " means a severe financial hardship of the Participant resulting from an illness or accident of the Participant, the Participant's spouse, the Participant's Beneficiary, or the Participant's dependent (as defined in Code Section 152, without regard to Code section 152(b)(i), (b)(2) and (d)(i)(B); loss of the Participant's property due to casualty; or other similar extraordinary and unforeseeable circumstances arising as a result of events beyond the control of the Participant.

2.25 " **Valuation Date** " means each business day of the Plan Year.

2.26 " **Years of Service** " means each one year period for which the Participant receives service credit in accordance with the provisions of Section 7.01(d) of the Adoption Agreement.

ARTICLE 3 -PARTICIPATION

3.1 **Participation.** The Participants in the Plan shall be those Directors and employees of the Employer who satisfy the requirements of Section 2.01 of the Adoption Agreement.

3.2 **Termination of Participation.** The Administrator may terminate a Participant's participation in the Plan in a manner consistent with Code Section 409A. If the Employer terminates a Participant's participation before the Participant experiences a Separation from Service the Participant's vested Accounts shall be paid in accordance with the provisions of Article 9.

ARTICLE 4 -PARTICIPANT ELECTIONS

4.1 **Deferral Agreement.** If permitted by the Plan Sponsor in accordance with Section 4.01 of the Adoption Agreement, each Eligible Employee and Director may elect to defer his Compensation within the meaning of Section 3.01 of the Adoption Agreement by executing in writing or electronically, a deferral agreement in accordance with rules and procedures established by the Administrator and the provisions of this Article 4.

A new deferral agreement must be timely executed for each Plan Year during which the Eligible Employee or Director desires to defer Compensation. An Eligible Employee or Director who does not timely execute a deferral agreement shall be deemed to have elected zero deferrals of Compensation for such Plan Year.

A deferral agreement may be changed or revoked during the period specified by the Administrator. Except as provided in Section 9.3 or in Section 4.01(c) of the Adoption

Agreement, a deferral agreement becomes irrevocable at the close of the specified period.

4.2 **Amount of Deferral.** An Eligible Employee or Director may elect to defer Compensation in any amount permitted by Section 4.01(a) of the Adoption Agreement.

4.3 **Timing of Election to Defer.** Each Eligible Employee or Director who desires to defer Compensation otherwise payable during a Plan Year must execute a deferral agreement within the period preceding the Plan Year specified by the Administrator. Each Eligible Employee who desires to defer Compensation that is a Bonus must execute a deferral agreement within the period preceding the Plan Year during which the Bonus is earned that is specified by the Administrator, except that if the Bonus can be treated as performance based compensation as described in Code Section 409A(a)(4)(B)(iii), the deferral agreement may be executed within the period specified by the Administrator, which period, in no event, shall end after the date which is six months prior to the end of the period during which the Bonus is earned, provided the Participant has performed services continuously from the later of the beginning of the performance period or the date the performance criteria are established through the date the Participant executed the deferral agreement and provided further that the compensation has not yet become 'readily ascertainable' within the meaning of Reg. Sec 1.409A-2(a)(8). In addition, if the Compensation qualifies as 'fiscal year compensation' within the meaning of Reg.

Sec. 1.409A -2(a)(6), the deferral agreement may be made not later than the

end of the Employer's taxable year immediately preceding the first taxable year of the Employer in which any services are performed for which such Compensation is payable.

Except as otherwise provided below, an employee who is classified or designated as an Eligible Employee during a Plan Year or a Director who is designated as eligible to participate during a Plan Year may elect to defer Compensation otherwise payable during the remainder of such Plan Year in accordance with the rules of this Section 4.3 by executing a deferral agreement within the thirty (30) day period beginning on the date the employee is classified or designated as an Eligible Employee or the date the Director is designated as eligible, whichever is applicable, if permitted by Section 4.01(b)(ii) of the Adoption Agreement. If Compensation is based on a specified performance period that begins before the Eligible Employee or Director executes his deferral agreement, the election will be deemed to apply to the portion of such Compensation equal to the total amount of Compensation for the performance period multiplied by the ratio of the number of days remaining in the performance period after the election becomes irrevocable and effective over the total number of days in the performance period. The rules of this paragraph shall not apply unless the Eligible Employee or Director can be treated as initially eligible in accordance with Reg. Sec. 1.409A-2(a)(7).

4.4 Election of Payment Schedule and Form of Payment.

All elections of a payment schedule and a form of payment will be made in accordance with rules and procedures established by the Administrator and the provisions of this Section 4.4.

(a) If the Plan Sponsor has elected to permit annual distribution elections in accordance with Section 6.01(h) of the Adoption Agreement the following rules apply. At the time an Eligible Employee or Director completes a deferral agreement, the Eligible Employee or Director must elect a distribution event (which includes a specified time) and a form of payment for the Compensation subject to the deferral agreement from among the

options the Plan Sponsor has made available for this purpose and which are specified in 6.01(b) of the Adoption Agreement. Prior to the time required by Reg. Sec. 1.409A-2, the Eligible Employee or Director shall elect a distribution event (which includes a specified time) and a form of payment for any Employer contributions that may be credited to the Participant's Account during the Plan Year. If an Eligible Employee or Director fails to elect a distribution event, he shall be deemed to have elected Separation from Service as the

distribution event. If he fails to elect a form of payment, he shall be deemed to have elected a lump sum form of payment.

(b) If the Plan Sponsor has elected not to permit annual distribution elections in accordance with Section 6.01(h) of the Adoption Agreement but does allow elections of the time and/or form of payment of amounts credited to a Participant's Account, the following rules apply. At the time an Eligible Employee or Director first completes a deferral agreement but in no event later than the time required by Reg. Sec. 1.409A-2, the Eligible Employee or Director must elect a distribution event (which includes a specified time) and a form of payment for amounts credited to his Account from among the options the Plan Sponsor has made available for this purpose and which are specified in Section 6.01(b) of the Adoption Agreement. If an Eligible Employee or Director fails to elect a distribution event, he shall be deemed to have elected Separation from Service in the distribution event. If he fails to elect a form of payment, he shall be deemed to have elected a lump sum form of payment.

(c) If the Plan Sponsor has elected not to permit any distribution elections to be made by a Participant the following rule shall apply. The amount credited to a Participant's Account shall be paid at the time and in the form specified in Section 6.01 of the Adoption Agreement.

ARTICLE 5 -EMPLOYER CONTRIBUTIONS

5.1 Matching Contributions. If elected by the Plan Sponsor in Section 5.01(a) of the Adoption Agreement, the Employer will credit the Participant's Account with a matching contribution determined in accordance with the formula specified in Section 5.01(a) of the Adoption Agreement. The matching contribution will be treated as allocated to the Participant's Account at the time specified in Section 5.01(a)(iii) of the Adoption Agreement.

5.2 Other Contributions. If elected by the Plan Sponsor in Section 5.01(b) of the Adoption Agreement, the Employer will credit the Participant's Account with a contribution determined in accordance with the formula or method specified in Section 5.01(b) of the Adoption Agreement. The contribution will be treated as allocated to the Participant's Account at the time specified in Section 5.01(b)(iii) of the Adoption Agreement.

ARTICLE 6 - ACCOUNTS AND CREDITS

6.1 Establishment of Account. For accounting and computational purposes only, the Administrator will establish and maintain an Account on behalf of each Participant which will reflect the credits made pursuant to Section 6.2, distributions or withdrawals, along with the earnings, expenses, gains and losses allocated thereto, attributable to the hypothetical investments made with the amounts in the Account as provided in Article 7. The Administrator will establish and maintain such other records and accounts, as it decides in its discretion to be reasonably required or appropriate to discharge its duties under the Plan.

6.2 Credits to Account. A Participant's Account will be credited for each Plan Year with the amount of his elective deferrals under Section 4.1 at the time the amount subject to the deferral election would otherwise have been payable to the Participant and the amount of Employer contributions treated as allocated on his behalf under Article 5.

ARTICLE 7 - INVESTMENT OF CONTRIBUTIONS

7.1 Investment Options. The amount credited to each Account shall be treated as invested in the investment options designated for this purpose by the Administrator.

7.2 Adjustment of Accounts. The amount credited to each Account shall be adjusted for hypothetical investment earnings, expenses, gains or losses in an amount equal to the earnings, expenses, gains or losses attributable to the investment options selected by the party designated in Section 9.01 of the Adoption Agreement from among the investment options provided in Section 7.1. If permitted by Section 9.01 of the Adoption Agreement, a Participant (or the Participant's Beneficiary after the death of the Participant) may, in accordance with rules and procedures established by the Administrator, select the investments from among the options provided in Section 7.1 to be used for the purpose of calculating future hypothetical investment adjustments to the Account or to future credits to the Account under Section 6.2 effective as of the Valuation Date coincident with or next following notice to the Administrator. Each Account shall be adjusted as of each Valuation Date to reflect: (a) the hypothetical earnings, expenses, gains and losses described above; (b) amounts credited pursuant to Section 6.2; and (c) distributions or withdrawals. In addition, each Account may be adjusted for its allocable share of the hypothetical costs and expenses associated with the maintenance of the hypothetical investments provided in Section 7.1.

ARTICLE 8 -RIGHT TO BENEFITS

8.1 Vesting. A Participant, at all times, has the 100% nonforfeitable interest in the amounts credited to his Account attributable to his elective deferrals made in accordance with Section 4.1.

Subject to the amendment and termination provisions of Article 10, a Participant's right to the amounts credited to his Account attributable to Employer contributions made in accordance with Article 5 shall be determined in accordance with the relevant schedule and provisions in Section 7.01 of the Adoption Agreement.

8.2 Death. The Plan Sponsor may elect to accelerate vesting upon the death of the Participant in accordance with Section 7.01(c) of the Adoption Agreement and/or to make distributions upon Death in accordance with Section 6.01(b) or Section 6.01(d) of the Adoption Agreement

A Participant may designate a Beneficiary or Beneficiaries, or change any prior designation of Beneficiary or Beneficiaries in accordance with rules and procedures established by the Administrator and subject to the Administrator's approval. Although the rules of the Administrator may permit a Participant to designate one or more alternative Beneficiaries (for example, an individual who shall become a Participant's Beneficiary in case the Participant's first choice of a Beneficiary dies before benefits become payable), a Participant may not designate persons who shall jointly receive benefits as Beneficiaries (for example, the designation of two or more children to jointly receive benefits as Beneficiaries is prohibited). Subject to the approval of the Administrator as provided above, a Participant may designate a trust as a Beneficiary.

A copy of the death notice or other sufficient documentation must be filed with and approved by the Administrator. If upon the death of the Participant there is, in the opinion of the Administrator, no designated Beneficiary for part or all of the Participant's vested Account, the Administrator shall apply default rules determined by it, in its sole discretion, but generally following a priority list of living persons in the following order: Spouse, children, parents, siblings, estate.

The term "Spouse" shall mean the individual to whom the Participant is legally married by civil or religious ceremony under the laws of the state in which the Participant is legally domiciled on the date the determination of whether there is a Spouse is being made. After a Participant's death, his or her "Spouse" shall be the individual, if any, who met these criteria as of the date of the Participant's death.

8.3 Disability. If the Plan Sponsor has elected to accelerate vesting upon the occurrence of a Disability in accordance with Section 7.01(c) of the Adoption Agreement and/or to permit distributions upon Disability in accordance with Section 6.01(b) or Section 6.01(d) of the Adoption Agreement, the determination of whether a Participant has incurred a Disability shall be made in accordance with Section 2.11 of this Plan.

ARTICLE 9 -DISTRIBUTION OF BENEFITS

9.1 Amount of Benefits. The vested amount credited to a Participant's Account as determined under Articles 6, 7 and 8 shall determine and constitute the basis for the value of benefits payable to the Participant under the Plan.

9.2 Method and Timing of Distributions. Distributions under the Plan shall be made in accordance with the terms of this Plan and the Adoption Agreement. Subject to the provisions of Section 9.6 requiring a six month delay for certain distributions to Key Employees, distributions following a distribution event shall commence at the time specified in Section 6.01 of the Adoption Agreement. If permitted by Section 6.01(g) of the Adoption Agreement, a Participant may elect, at least twelve months before a scheduled distribution event, to delay the payment date for a minimum period of sixty months from the originally scheduled date of payment, provided the election does not take effect for at least twelve months from the date on which the election is made. The distribution election change must be made in accordance with procedures and rules established by the Administrator. The

Participant may, at the same time the date of payment is deferred, change the form of payment but such change in the form of payment may not effect an acceleration of payment in violation of Code Section 409A or the provisions of Reg. Sec. 1.409A-2(b). For purposes of this Section 9.2, a series of installment payments is always treated as a single payment and not as a series of separate payments.

9.3 Unforeseeable Emergency. A Participant may request a distribution due to an Unforeseeable Emergency if the Plan Sponsor has elected to permit Unforeseeable Emergency withdrawals under Section 8.01(a) of the Adoption Agreement. The request must be in writing and must be submitted to the Administrator along with evidence that the circumstances constitute an Unforeseeable Emergency. The Administrator has the discretion to require whatever evidence it deems necessary to determine whether a distribution is warranted, and may require the Participant to certify that the need cannot be met from other sources reasonably available to the Participant. Whether a Participant has incurred an Unforeseeable Emergency will be determined by the Administrator on the basis of the relevant facts and circumstances in its sole discretion, but, in no event, will an Unforeseeable Emergency be deemed to exist if the hardship can be relieved: (a) through reimbursement or compensation by insurance or otherwise, (b) by liquidation of the Participant's assets to the extent such liquidation would not itself cause severe financial hardship, or (c) by cessation of deferrals under the Plan.

A distribution due to an Unforeseeable Emergency must be limited to the amount reasonably necessary to satisfy the emergency need and may include any amounts necessary to pay any federal, state, foreign or local income taxes and penalties reasonably anticipated to result from the distribution. The distribution will be made in the form of a single lump sum cash payment. If permitted by Section 8.01(b) of the Adoption Agreement, a Participant's deferral elections for the remainder of the Plan Year will be cancelled upon a withdrawal due to an Unforeseeable Emergency. If the payment of all or any portion of the Participant's vested Account is being delayed in accordance with Section 9.6 at the time he experiences an Unforeseeable Emergency, the amount being delayed shall not be subject to the provisions of this Section 9.3 until the expiration of the six month period of delay required by Section 9.6.

9.4 Payment Election Overrides. If the Plan Sponsor has elected one or more payment election overrides in accordance with Section 6.01(d) of the Adoption Agreement, the following provisions apply. Upon the occurrence of the first event selected by the Plan Sponsor, the remaining vested amount credited to the Participant's Account shall be paid in the form designated to the Participant or his Beneficiary regardless of whether the Participant had made different elections of time and /or form of payment or whether the Participant was receiving installment payments at the time of the event.

9.5 Cashouts Except as provided in Section 9.9(c) of this Plan, lump sum cashouts shall not be

made under the Plan,

9.6 Required Delay in Payment to Key Employees. Except as otherwise provided in this Section 9.6, a distribution made on account of Separation from Service (or Retirement, if applicable) to a Participant who is a Key Employee as of the date of his Separation from Service (or Retirement, if applicable) shall not be made before the date which is six months after the Separation from Service (or Retirement, if applicable).

(a) A Participant is treated as a Key Employee if (i) he is employed by a Related Employer any of whose stock is publicly traded on an established securities market, and (ii) he satisfies the requirements of Code Section 416(i)(1)(A)(i), (ii) or (iii), determined without regard to Code Section 416(i)(5), at any time during the twelve month period ending on the Identification Date.

(b) A Participant who is a Key Employee on an Identification Date shall be treated as a Key Employee for purposes of the six month delay in distributions for the twelve month period beginning on the first

day of a month no later than the fourth month following the Identification Date. The Identification Date and the effective date of the delay in distributions shall be determined in accordance with Section 1.06 of the Adoption Agreement.

(c) The Plan Sponsor may elect to apply an alternative method to identify Participants who will be treated as Key Employees for purposes of the six month delay in distributions if the method satisfies each of the following requirements. The alternative method is reasonably designed to include all Key Employees, is an objectively determinable standard providing no direct or indirect election to any Participant regarding its application, and results in either all Key Employees or no more than 200 Key Employees being identified in the class as of any date. Use of an alternative method that satisfies the requirements of this Section 9.6(c) will not be treated as a change in the time and form of payment for purposes of Reg. Sec. 1.409A-2(b).

(d) The six month delay does not apply to payments described in Section 9.9(a),(b) or (d) or to payments that occur after the death of the Participant. If the payment of all or any portion of the Participant's vested Account is being delayed in accordance with this Section 9.6 at the time he incurs a Disability which would otherwise require a distribution under the terms of the Plan, no amount shall be paid until the expiration of the six month period of delay required by this Section 9.6.

9.7 Change in Control. If the Plan Sponsor has elected to permit distributions upon a Change in Control, the following provisions shall apply. A distribution made upon a Change in Control will be made at the time specified in Section 6.01(a) of the Adoption Agreement in the form elected by the Participant in accordance with the procedures described in Article 4.

Alternatively, if the Plan Sponsor has elected in accordance with Section 11.02 of the Adoption Agreement to require distributions upon a Change in Control, the Participant's remaining vested Account shall be paid to the Participant or the Participant's Beneficiary at the time specified in Section 6.01(a) of the Adoption Agreement as a single lump sum payment. A Change in Control, for purposes of the Plan, will occur upon the occurrence of an event

described in this Section 9.7. All distributions made in accordance with this Section 9.7 are subject to the provisions of Section 9.6.

If a Participant continues to make deferrals in accordance with Article 4 after he has received a distribution due to a Change in Control, the residual amount payable to the Participant shall be paid at the time and in the form specified in the elections he makes in accordance with Article 4 or upon his death or Disability as provided in Article 8.

Whether a Change in Control has occurred will be determined by the Administrator in accordance with the rules and definitions set forth in this Section 9.7. A distribution to the Participant will be treated as occurring upon a Change in Control within the meaning of Section
11.01 of the Adoption Agreement and this Section 9.7 if the Plan Sponsor terminates the Plan in accordance with Section 10.2 and distributes the Participant's benefits within twelve months of the date the Plan Sponsor irrevocably takes all necessary action to terminate the Plan as provided in Section 10.2.

A Change in Control means a "change in control event" within the meaning of Treasury Regulation 1.409A-3(i)(5)(i) & (ii) that occurs with respect to a Participant on or after the date on which any of the following events occurs:

(a) any Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Plan Sponsor (not including in the securities beneficially owned by such Person any securities acquired directly from the Plan Sponsor or its Affiliates) representing 25% or more of the combined voting power of the Plan Sponsor's then outstanding securities, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (A) of paragraph (c) below; or

(b) the following individuals cease for any reason to constitute a majority of the number of directors serving on the Board: individuals who, at the beginning of any period of two consecutive years, constitute the Board and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Plan Sponsor) whose appointment or election by the Board or nomination for election by the Plan Sponsor's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of such period or whose appointment, election or nomination for

election was previously so approved or recommended; or

(c) there is consummated a merger or consolidation of the Plan Sponsor or any Subsidiary with any other corporation, other than (A) a merger or consolidation which would result in the voting securities of the Plan Sponsor outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Plan Sponsor or any Subsidiary, at least 60% of the combined voting power of the securities of the Plan Sponsor or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation, or (B) a

merger or consolidation effected to implement a recapitalization of the Plan Sponsor (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Plan Sponsor (not including in the securities beneficially owned by such Person any securities acquired directly from the Plan Sponsor or its Affiliates) representing 25% or more of the combined voting power of the Company's then outstanding securities; or

(d) the shareholders of the Plan Sponsor approve a plan of complete liquidation or dissolution of the Plan Sponsor or there is consummated an agreement for the sale or disposition by the Plan Sponsor of all or substantially all of the Plan Sponsor's assets, other than a sale or disposition by the Plan Sponsor of all or substantially all of the Plan Sponsor's assets to an entity, at least 60% of the combined voting power of the voting securities of which are owned by shareholders of the Plan Sponsor in substantially the same proportions as their ownership of the Plan Sponsor immediately prior to such sale.

For purposes of the foregoing provisions of this Section 9.7,

(i) the term "Affiliate" shall have the meaning set forth in Rule 12b-2 promulgated under Section 12 of the Exchange Act;

(ii) the term "Beneficial Owner" shall have the meaning set forth in Rule 13d-3 under the Exchange Act; and

(iii) the term "Person" shall have the meaning given in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 14(d) thereof, except that such term shall not include (i) any member of the Barnes family (by blood or

marriage) or any entity for the benefit of, or controlled by, a member of the Barnes family (by blood or marriage), (ii) the Plan Sponsor or any of its subsidiaries, (iii) a trustee or other fiduciary holding securities under an employee benefit plan of the Plan Sponsor or any of its Affiliates, (iv) an underwriter temporarily holding securities pursuant to an offering of such securities, or (v) a corporation owned, directly or indirectly, by the shareholders of the Plan Sponsor in substantially the same proportions as their ownership of stock of the Plan Sponsor.

9.8 Permissible Delays in Payment. Distributions may be delayed beyond the date payment would otherwise occur in accordance with the provisions of Articles 8 and 9 in any of the following circumstances as long as the Employer treats all payments to similarly situated Participants on a reasonably consistent basis.

(a) The Employer may delay payment if it reasonably anticipates that its deduction with respect to such payment would be limited or eliminated by the application of Code Section 162(m). Payment must be made during the Participant's first taxable year in which the Employer reasonably anticipates, or should reasonably anticipate, that if the payment is made during such year the deduction of such payment will not be barred by the application of Code Section 162(m) or during the period beginning with the Participant's "separation from service" and ending on the later of the last day of the Employer's taxable year in which the Participant separates from service or the 15th day of the third month following the Participant's "separation from service." If a scheduled payment to a Participant is delayed in accordance with this

Section 9.8(a), all scheduled

payments to the Participant that could be delayed in accordance with this Section 9.8(a) will also be delayed. The term "separation from service" and the other provisions hereof shall be determined in a manner consistent with applicable Treasury regulations.

(b) The Employer may also delay payment if it reasonably anticipates that the making of the payment will violate federal securities laws or other applicable laws provided payment is made at the earliest date on which the Employer reasonably anticipates that the making of the payment will not cause such violation.

(c) The Employer reserves the right to amend the Plan to provide for a delay in payment upon such other events and conditions as the Secretary of the Treasury may prescribe in generally applicable

guidance published in the Internal Revenue Bulletin.

9.9 Permitted Acceleration of Payment. The Employer may permit acceleration of the time or schedule of any payment or amount scheduled to be paid pursuant to a payment under the Plan provided such acceleration would be permitted by the provisions of Reg. Sec. 1.409A- 3(j)(4), including the following events:

(a) **Domestic Relations Order.** A payment may be accelerated if such payment is made to an alternate payee pursuant to and following the receipt and qualification of a domestic relations order as defined in Code Section 414(p).

(b) **Compliance with Ethics Agreements and Legal Requirements.** A payment may be accelerated as may be necessary to comply with ethics agreements with the Federal government or as may be reasonably necessary to avoid the violation of Federal, state, local or foreign ethics law or conflicts of laws, in accordance with the requirements of Code Section 409A.

(c) **De Minimis Amounts.** In the discretion of the Administrator, a payment may be accelerated if (i) the amount of the payment is not greater than the applicable dollar amount under Code Section 402(g)(1)(B), and (ii) at the time the payment is made the amount constitutes the Participant's entire interest under the Plan and all other plans that are aggregated with the Plan under Reg. Sec. 1.409A-1(c)(2).

(d) **FICA Tax.** A payment may be accelerated to the extent required to pay the Federal Insurance Contributions Act tax imposed under Code Sections 3101, 3121(a) and 3121(v)(2) of the Code with respect to compensation deferred under the Plan (the "FICA Amount"). Additionally, a payment may be accelerated to pay the income tax on wages imposed under Code Section 3401 of the Code on the FICA Amount and to pay the additional income tax at source on wages attributable to the pyramiding Code Section 3401 wages and taxes. The total payment under this subsection (d) may not exceed the aggregate of the FICA Amount and the income tax withholding related to the FICA Amount.

(e) **Section 409A Additional Tax.** A payment may be accelerated if the Plan fails to meet the requirements of Code Section 409A; provided that such payment may not exceed

the amount required to be included in income as a result of the failure to comply with the

requirements of Code Section 409A.

(f) **Offset.** A payment may be accelerated in the Employer's discretion as satisfaction of a debt of the Participant to the Employer, where such debt is incurred in the ordinary course of the service relationship between the Participant and the Employer, the entire amount of the reduction in any of the Employer's taxable years does not exceed $5,000, and the reduction is made at the same time and in the same amount as the debt otherwise would have been due and collected from the Participant.

(g) **Other Events.** A payment may be accelerated in the Administrator's discretion in connection with such other events and conditions as permitted by Code Section 409A.

ARTICLE 10 - AMENDMENT AND TERMINATION

10.1 Amendment and Termination by Plan Sponsor. The Plan Sponsor reserves the right to amend and/or terminate the Plan (for itself and each Employer) through action of its Board of Directors at any time for whatever reasons it may deem appropriate (or for no reason), except that no such amendment or termination shall adversely affect the benefits payable to any person who has begun to receive benefits hereunder and no such amendment or termination may accelerate or defer the payment of compensation except as permitted by Section 409A of the Code.

10.2 Plan Termination Following Change in Control or Corporate Dissolution. If so elected by the Plan Sponsor in Section 11.01 of the Adoption Agreement, the Plan Sponsor reserves the right to terminate the Plan pursuant to irrevocable action taken within the 30 days preceding or the twelve months following a Change in Control as determined in accordance with the rules set forth in Section 9.7. For this purpose, the Plan will be treated as terminated only if all agreements, methods, programs and other arrangements sponsored by the Related Employer immediately after the Change in Control which are treated as a single plan with the Plan under Treas. Reg. Sec. 1.409A-1(c)(2) are also terminated so that all participants under the Plan and all similar arrangements that experienced the Change in Control are required to receive all amounts deferred under the terminated arrangements within twelve months of the date the Plan Sponsor irrevocably takes all necessary action to terminate the arrangements. The foregoing provisions of this Section 10.2 and Section 11.01 of the Adoption Agreement shall be administered, interpreted and construed in accordance with Treasury Regulation 1.409A- 3(j)(4)(ix)(B). In addition, the Plan Sponsor reserves the right to terminate and liquidate the Plan within twelve months of a corporate dissolution taxed under Code Section 331 or with the approval of a bankruptcy court pursuant to 11 U. S. C. Section 503(b)(1)(A) provided that amounts deferred under the Plan are included in the gross incomes of Participants in the latest of the following years (or, if earlier, the taxable year in which the amount is actually or constructively received): (a) the calendar year in which the termination and liquidation occurs, (b) the first calendar year in which the amount is no longer subject to a substantial risk of forfeiture, or (c) the first calendar year in which payment is administratively practicable. The

preceding sentence shall be administered, interpreted and construed in accordance with Treasury Regulation 1.409A-3(j)(4)(ix)(A).

10.3 Other Plan Terminations. The Plan Sponsor retains the discretion to terminate the Plan if (a) all arrangements sponsored by the Plan Sponsor

that would be aggregated with any terminated arrangement under Code Section 409A and Reg. Sec. 1.409A-1(c)(2) are terminated, (b) no payments other than payments that would be payable under the terms of the arrangements if the termination had not occurred are made within twelve months of the termination of the arrangements, (c) all payments are made within twenty-four months of the termination of the arrangements, the Plan Sponsor does not adopt a new arrangement that would be aggregated with any terminated arrangement under Code Section 409A and the regulations thereunder at any time within the three year period following the date of termination of the arrangement, and (e) the termination does not occur proximate to a downturn in the financial health of the Plan sponsor. The foregoing provisions of this Section
10.3 shall be administered, interpreted and construed in accordance with Treasury Regulation 1.409A-3(j)(4)(ix)(C).

The Plan Sponsor also reserves the right to amend the Plan to provide that termination of the Plan will occur under such conditions and events as may be prescribed by the Secretary of the Treasury in generally applicable guidance published in the Internal Revenue Bulletin.

ARTICLE 11 - THE TRUST

11.1 Establishment of Trust. The Plan Sponsor may but is not required to establish a trust to hold amounts which the Plan Sponsor may contribute from time to time to correspond to some or all amounts credited to Participants under Section 6.2. If the Plan Sponsor elects to establish a trust in accordance with Section 10.01 of the Adoption Agreement, the provisions of Sections 11.2 and 11.3 shall become operative.

11.2 Grantor Trust. Any trust established by the Plan Sponsor shall be between the Plan Sponsor and a trustee pursuant to a separate written agreement under which assets are held, administered and managed, subject to the claims of the Plan Sponsor's creditors in the event of the Plan Sponsor's insolvency. The trust is intended to be treated as a grantor trust under the Code, and the establishment of the trust shall not cause the Participant to realize current income on amounts contributed thereto. The Plan Sponsor must notify the trustee in the event of a bankruptcy or insolvency.

11.3 Investment of Trust Funds. Trust investments need not reflect the hypothetical investments selected by Participants under Section 7.1 for the purpose of adjusting Accounts and the earnings or investment results of the trust need not affect the hypothetical investment adjustments to Participant Accounts under the Plan.

ARTICLE 12 - PLAN ADMINISTRATION

12.1 Powers and Responsibilities of the Administrator. The Administrator has the full power and discretion, and the full responsibility, to administer, interpret, and construe the Plan in all of its details, subject, however, to any applicable requirements of ERISA. The Administrator's powers and responsibilities include, but are not limited to, the following:

(a) To make and enforce such rules and procedures as it deems necessary or proper for the efficient administration of the Plan;

(b) To interpret the Plan, its interpretation thereof to be final on all persons claiming benefits under the Plan;

(c) To decide all questions concerning the Plan and the eligibility of any person to participate in the Plan;

(d) To compute the amount of benefits which will be payable to any Participant, former Participant or Beneficiary in accordance with the provisions of the Plan;

(e) To determine the person or persons to whom such benefits will be paid;

(f) To authorize the payment of benefits;

(g) To appoint such agents, counsel, accountants, and consultants as may be required to assist in administering the Plan;

(h) To allocate and delegate its responsibilities to administer the Plan.

12.2 Claims and Review Procedures. The claims and review procedures applicable to this Plan are set forth in a supplemental document; the following provisions of this Section 12.2 are inapplicable.

(a) Claims Procedure.

If any person believes he is being denied any rights or benefits under the Plan, such person may file a claim in writing with the Administrator. If any such claim is wholly or partially denied, the Administrator will notify such person of its decision in writing. Such notification will contain (i) specific reasons for the denial, (ii) specific reference to pertinent Plan provisions, (iii) a description of any

additional material or information necessary for such person to perfect such claim and an explanation of why such material or information is necessary, and (iv) a description of the Plan's review procedures and the time limits applicable to such procedures, including a statement of the person's right to bring a civil action following an adverse decision on review. Such notification will be given within 90 days after the claim is received by the Administrator. The Administrator may extend the period for providing the notification by 90 days if special circumstances require an extension of time for processing the claim and if written notice of such extension and circumstance is given to such person within the initial 90 day period. If such notification is not given within such

period, the claim will be considered denied as of the last day of such period and such person may request a review of his claim.

(b) Review Procedure.

Within 60 days after the date on which a person receives a written notification of denial of claim (or, if written notification is not provided, within 60 days of the date denial is considered to have occurred), such person (or his duly authorized representative) may
(i) file a written request with the Administrator for a review of his denied claim and of pertinent documents and (ii) submit written issues and comments to the Administrator. The Administrator will notify such person of its decision in writing. Such notification will be written in a manner calculated to be understood by such person and will contain specific reasons for the decision as well as specific references to pertinent Plan provisions. The notification will explain that the person is entitled to receive, upon request and free of charge, reasonable access to and copies of all pertinent documents and has the right to bring a civil action following an adverse decision on review. The decision on review will be made within 60 days. The Administrator may extend the period for making the decision on review by 60 days if special circumstances require an extension of time for processing the request such as an election by the Administrator to hold a hearing, and if written notice of such extension and circumstances is given to such person within the initial 60-day period. If the decision on review is not made within such period, the claim will be considered denied.

(c) Special Procedure for Claims Due to Disability.

To the extent an application for distribution as a result of a Disability requires the Administrator or the panel reviewing the Administrator's

determination, as applicable, to make a determination of Disability under the terms of the Plan, then such determination shall be subject to all of the general rules described in this Section, except as they are expressly modified by this Section 12(c).

(i) The initial decision on the claim for a Disability distribution will be made within forty-five (45) days after the Plan receives the claimant's claim, unless special circumstances require additional time, in which case the Administrator will notify the claimant before the end of the initial forty-five (45)-day period of an extension of up to thirty (30) days. If necessary, the Administrator may notify the claimant, prior to the end of the initial thirty (30)-day extension period, of a second extension of up to thirty (30) days. If an extension is due to the claimant's failure to supply the necessary information, then the notice of extension will describe the additional information and the claimant will have forty-five (45) days to provide the additional information. Moreover, the period for making the determination will be delayed from the date the notification of extension was sent out until the claimant responds to the request for additional information. No additional extensions may be made, except with the claimant's voluntary consent. The contents of the notice shall be the same as described in Section 12.2(a) above. If a disability distribution claim is denied

in whole or in part, then the claimant will receive notification, as described in Section 12.2(c).

(ii) If an internal rule, guideline, protocol or similar criterion is relied upon in making the adverse determination, then the denial notice to the claimant will either set forth the internal rule, guideline, protocol or similar criterion, or will state that such was relied upon and will be provided free of charge to the claimant upon request (to the extent not legally-privileged) and if the claimant's claim was denied based on a medical necessity or experimental treatment or similar exclusion or limit, then the claimant will be provided a statement either explaining the decision or indicating that an explanation will be provided to the claimant free of charge upon request.

(iii) Any claimant whose application for a Disability distribution is denied in whole or in part, may appeal the denial by submitting to the panel reviewing the administrator's

determination (the "Review Panel") a request for a review of the application within one hundred and eighty (180) days after receiving notice of the denial. The request for review shall be in the form and manner prescribed by the Review Panel. In the event of such an appeal for review, the provisions of Section 12.2(b) regarding the claimant's rights and responsibilities shall apply. Upon request, the Review Panel will identify any medical or vocational expert whose advice was obtained on behalf of the Review Panel in connection with the denial, without regard to whether the advice was relied upon in making the determination. The entity or individual appointed by the Review Panel to review the claim will consider the appeal de novo , without any deference to the initial denial. The review will not include any person who participated in the initial denial or who is the subordinate of a person who participated in the initial denial.

(iv) If the initial Disability distribution denial was based in whole or in part on a medical judgment, then the Review Panel will consult with a health care professional who has appropriate training and experience in the field of medicine involved in the medical judgment, and who was neither consulted in connection with the initial determination nor is the subordinate of any person who was consulted in connection with that determination; and upon notifying the claimant of an adverse determination on review, include in the notice either an explanation of the clinical basis for the determination, applying the terms of the Plan to the claimant's medical circumstances, or a statement that such explanation will be provided free of charge upon request.

(v) A decision on review shall be made promptly, but not later than forty-five (45) days after receipt of a request for review, unless special circumstances require an extension of time for processing. If an extension is required, the claimant will be notified before the end of the initial forty-five (45)-day period that an extension of time is required and the anticipated date that the review will be completed. A decision will be given as soon as possible, but not later than ninety (90) days after receipt of a request for review. The Review Panel shall give notice of its decision to the claimant; such notice shall comply with the requirements set forth in Section 12.2(a). In addition, if the claimant's claim was denied based on a medical necessity or experimental treatment or similar exclusion, then the claimant will be

provided a statement explaining the decision, or a statement providing that such explanation will be furnished to the claimant free of charge upon request. The notice shall also contain the following statement: "You and your Plan may have other voluntary alternative dispute resolution options, such as mediation. One way to find out what may be available is to contact your local U.S. Department of Labor Office and your State insurance regulatory agency."

(d) Exhaustion of Claims Procedure and Right to Bring Legal Claim No action in law or equity shall be brought more than one (1) year after the Review Panel's affirmation of a denial of the claim, or, if earlier, more than four (4) years after the facts or events giving rise to the claimant's allegation(s) or claim(s) first occurred.

12.3 Plan Administrative Costs. All reasonable costs and expenses (including legal, accounting, and employee communication fees) incurred by the Administrator in administering the Plan shall be paid by the Plan Sponsor.

ARTICLE 13 - MISCELLANEOUS

13.1 Unsecured General Creditor of the Employer. Participants and their Beneficiaries, heirs, successors and assigns shall have no legal or equitable rights, interests or claims in any property or assets of the Employer. For purposes of the payment of benefits under the Plan, any and all of the Employer's assets shall be, and shall remain, the general, unpledged, unrestricted assets of the Employer. Each Employer's obligation under the Plan shall be merely that of an unfunded and unsecured promise to pay money in the future.

13.2 Employer's Liability. Each Employer's liability for the payment of benefits under the Plan shall be defined only by the Plan and by the deferral agreements entered into between a Participant and the Employer. An Employer shall have no obligation or liability to a Participant under the Plan except as provided by the Plan and a deferral agreement or agreements. An Employer shall have no liability to Participants employed by other Employers.

13.3 Limitation of Rights. Neither the establishment of the Plan, nor any amendment thereof, nor the creation of any fund or account, nor the payment of any benefits, will be construed as giving to the Participant or any other person any legal or equitable right against the Employer, the Plan or the Administrator, except as provided herein; and in no event will the terms of employment or service of the Participant be modified or in any way affected hereby.

13.4 Anti-Assignment. None of the benefits or rights of a Participant or any Beneficiary of a Participant shall be subject to the claim of any creditor. In particular, to the fullest extent permitted by law, all such benefits and rights shall be free from attachment, garnishment, or any other legal or equitable process available to any creditor of the Participant and his or her Beneficiary. Neither the Participant nor his or her Beneficiary shall have the right to alienate, anticipate, commute, pledge, encumber, or assign any of the payments which he or she may expect to receive, contingently or otherwise, under the Plan, except the right to designate a Beneficiary to receive death benefits provided hereunder.

13.5 Facility of Payment. If the Administrator determines, on the basis of medical reports or other evidence satisfactory to the Administrator, that the recipient of any benefit payments under the

Plan is incapable of handling his affairs by reason of minority, illness, infirmity or other incapacity, the Administrator may direct the Employer to disburse such payments to a person or institution designated by a court which has jurisdiction over such

recipient or a person or institution otherwise having the legal authority under State law for the care and control of such recipient. The receipt by such person or institution of any such payments therefore, and any such payment to the extent thereof, shall discharge the liability of the Employer, the Plan and the Administrator for the payment of benefits hereunder to such recipient.

13.6 Notices. Any notice or other communication to the Employer or Administrator in connection with the Plan shall be deemed delivered in writing if addressed to the Plan Sponsor at the address specified in Section 1.03 of the Adoption Agreement and if either actually delivered at said address or, in the case or a letter, 5 business days shall have elapsed after the same shall have been deposited in the United States mails, first-class postage prepaid and registered or certified.

13.7 Tax Withholding. If the Employer concludes that tax is owing with respect to any deferral or payment hereunder, the Employer shall withhold such amounts from any payments due the Participant, as permitted by law, or otherwise make appropriate arrangements with the Participant or his Beneficiary for satisfaction of such obligation. Tax, for purposes of this Section 13.7 means any federal, state, local or any other governmental income tax, employment or payroll tax, excise tax, or any other tax or assessment owing with respect to amounts deferred, any earnings thereon, and any payments made to Participants under the Plan.

13.8 Indemnification.

(a) Each Indemnitee (as defined in Section 13.8(e)) shall be indemnified and held harmless by the Employer for all actions taken by him and for all failures to take action (regardless of the date of any such action or failure to take action), to the fullest extent permitted by the law of the jurisdiction in which the Employer is incorporated, against all expense, liability, and loss (including, without limitation, attorneys' fees, judgments, fines, taxes, penalties, and amounts paid or to be paid in settlement) reasonably incurred or suffered by the Indemnitee in connection with any Proceeding (as defined in Subsection (e)). No indemnification pursuant to this Section shall be made, however, in any case where (1) the act or failure to act giving rise to the claim for indemnification is determined by a court to have constituted willful misconduct or recklessness or (2) there is a settlement to which the Employer does not consent.

(b) The right to indemnification provided in this Section shall include

the right to have the expenses incurred by the Indemnitee in defending any Proceeding paid by the Employer in advance of the final disposition of the Proceeding, to the fullest extent permitted by the law of the jurisdiction in which the Employer is incorporated; provided that, if such law requires, the payment of such expenses incurred by the Indemnitee in advance of the final disposition of a Proceeding shall be made only on delivery to the Employer of an undertaking, by or on behalf of the Indemnitee, to repay all amounts so advanced without interest if it shall ultimately be determined that the Indemnitee is not entitled to be indemnified under this Section or otherwise.

(c) Indemnification pursuant to this Section shall continue as to an Indemnitee who has ceased to be such and shall inure to the benefit of his heirs, executors, and administrators. The Employer agrees that the undertakings made in this Section shall be binding on its successors or assigns and shall survive the termination, amendment or restatement of the Plan.

(d) The foregoing right to indemnification shall be in addition to such other rights as the Indemnitee may enjoy as a matter of law or by reason of insurance coverage of any kind and is in addition to and not in lieu of any rights to indemnification to which the Indemnitee may be entitled pursuant to the by-laws of the Employer.

(e) For the purposes of this Section, the following definitions shall apply:

(1) "Indemnitee" shall mean each person serving as an Administrator (or any other person who is an employee, director, or officer of the Employer) who was or is a party to, or is threatened to be made a party to, or is otherwise involved in, any Proceeding, by reason of the fact that he is or was performing administrative functions under the Plan.

(2) "Proceeding" shall mean any threatened, pending, or completed action, suit, or proceeding (including, without limitation, an action, suit, or proceeding by or in the right of the Employer), whether civil, criminal, administrative, investigative, or through arbitration.

13.9 Successors. The provisions of the Plan shall bind and inure to the benefit of the Plan Sponsor, the Employer and their successors and assigns and the Participant and the Participant's designated Beneficiaries.

13.10 Disclaimer. It is the Plan Sponsor's intention that the Plan comply with the requirements of Code Section 409A. Neither the Plan Sponsor nor the Employer shall have any liability to any Participant should any provision of the Plan fail to satisfy the requirements of Code Section 409A.

13.11 Governing Law. The Plan will be construed, administered and enforced according to the laws of the State specified by the Plan Sponsor in Section 12.01 of the Adoption Agreement.

13.12 Plan Addendums. The Plan Sponsor may adopt one or more addendums that shall constitute a part of this Plan and, to the extent provided therein, supplement or supersede other provisions of the Plan and Adoption Agreement.

ADOPTION AGREEMENT

1.1 PREAMBLE

By the execution of this Adoption Agreement the Plan Sponsor hereby [complete (a) or (b)]

(a) x adopts a new plan as of September 1, 2009 [month, day, year]

(b) o amends and restates its existing plan as of ___[month, day, year] which is the Amendment Restatement Date. Except as otherwise provided in Appendix A, all amounts deferred under the Plan prior to the Amendment Restatement Date shall be governed by the terms of the Plan as in effect on the day before the Amendment Restatement Date.

Original Effective Date: ___[month, day, year]

Pre-409A Grandfathering: Yes No

1.2 PLAN

Plan Name: Barnes Group 2009 Deferred Compensation Plan

Plan Year: January 1 - December 31, except that the first Plan Year will begin on September 1, 2009 and end on December 31, 2009.

1.3 PLAN SPONSOR

Name: Barnes Group Inc. Address: 123 Main Street, Bristol, CT 06010 Phone # : (860) 583-7070 EIN: 06-0247846
Fiscal Yr: January 1 - December 31

Is stock of the Plan Sponsor, any Employer or any Related Employer publicly traded on an established securities market?

ý Yes o No

1.4 EMPLOYER

The following entities have been authorized by the Plan Sponsor to participate in and have adopted the Plan (insert Not Applicable" if none have been authorized):

Entity	Publicly Traded on Est. Securities Market

1.5 ADMINISTRATOR

The following provisions are subject to the applicable provisions of any addendum to the Plan and Adoption Agreement.

The Plan Sponsor has designated the following party or parties to be responsible for the administration of the Plan:

Name: Plan Sponsor Address: See Section 1.03

Note : The Administrator is the person or persons designated by the Plan Sponsor to be responsible for the administration of the Plan. Neither Fidelity Employer Services Company nor any other Fidelity affiliate can be the Administrator.

1.6 KEY EMPLOYEE DETERMINATION DATES

The Employer has designated **See Addendum I** as the Identification Date for purposes of determining Key Employees.

In the absence of a designation, the Identification Date is December 31

The Employer has designated **See Addendum I** as the effective date for purposes of applying the six month delay in distributions to Key Employees.

In the absence of a designation, the effective date is the first day of the fourth month following the Identification Date.

2.1 PARTICIPATION

(a) ý Employees [complete (i), (ii) or (iii)]

(i) o Eligible Employees are selected by the Employer.

(ii) ý Eligible Employees are those employees of the Employer who satisfy the following criteria:

Designated as eligible to participate (without any revocation or other change in such designation) by the Compensation and Management Development Committee of the Plan Sponsor's Board of Directors prior to April 1, 2012. No employee who is newly hired, rehired or promoted on or after April 1, 2012 will be an Eligible Employee.

(iii) o Employees are not eligible to participate.

(b) ý Directors [complete (i), (ii) or (iii)]

3.1 COMPENSATION

For purposes of determining Participant contributions under Article 4 and Employer contributions under Article 5, Compensation shall be defined in the following manner [complete (a) or (b) and select (c) and/or (d), if applicable]:

(a) ý Compensation is defined as:

The sum of (a) the Participant's `compensation' as defined by the Barnes Group Inc. Retirement Savings Plan, determined as if there were no limitation under Section 401(a)(17) of the Code, and (b) bonuses paid pursuant to the Management Incentive Compensation Plan and the Performance-Linked Bonus Plan for Selected Executive Officers, or any successor plans, reduced by the Section 401(a)(17) of the Code limitation in effect for the Plan Year. It shall be assumed for this purpose that the Retirement Savings Plan ends on the December 31 immediately succeeding the December 30 on which it actually ends.

(b) o Compensation as defined in ___[insert name of qualified plan] without regard to the limitation in Section 401(a)(17) of the Code for such Plan Year.

(c) o Director Compensation is defined as:

(d) o Compensation shall, for all Plan purposes, be limited to $

(e) o Not Applicable.

3.2 BONUSES

Compensation, as defined in Section 3.01 of the Adoption Agreement, includes the following type of bonuses:

Type	Will be treated as Performance Based Compensation	
	Yes	No
As defined in Section 3.01	o	ý
	o	o
	o	o

o Not Applicable.

4.1 PARTICIPANT CONTRIBUTIONS

If Participant contributions are permitted, complete (a), (b), and (c). Otherwise complete (d).

(a) Amount of Deferrals

A Participant may elect within the period specified in Section 4.01(b) of the Adoption Agreement to defer the following amounts of remuneration. For each type of remuneration listed, complete “dollar amount” and / or “percentage amount”.

(i) Compensation Other than Bonuses [do not complete if you complete (iii)]

Note: The increment is required to determine the permissible deferral amounts. For example, a minimum of 0% and maximum of 20% with a 5% increment would allow an individual to defer 0%, 5%, 10%, 15% or 20%.

(ii) Bonuses [do not complete if you complete (iii)]

(iii) Compensation [do not complete if you completed (i) and (ii)]

(iv) Director Compensation

(b) **Election Period**

(i) Performance Based Compensation A special election period

o Does o Does Not

apply to each eligible type of performance based compensation referenced in Section 3.02 of the Adoption Agreement.

The special election period, if applicable, will be determined by the Employer.

(ii) Newly Eligible Participants

An employee who is classified or designated as an Eligible Employee during a Plan Year

o May o May Not

elect to defer Compensation earned during the remainder of the Plan Year by completing a deferral agreement within the 30 day period beginning on the date he is eligible to participate in the Plan.

(c) Revocation of Deferral Agreement A Participant's deferral agreement o Will

o Will Not

be cancelled for the remainder of any Plan Year during which he receives a hardship

distribution of elective deferrals from a qualified cash or deferred arrangement maintained by the Employer. If cancellation occurs, the Participant may resume participation in accordance with Article 4 of the Plan.

(d) **No Participant Contributions**

ý Participant contributions are not permitted under the Plan.

5.1 EMPLOYER CONTRIBUTIONS

If Employer contributions are permitted, complete (a) and/or (b). Otherwise complete (c).

(a) Matching Contributions

(i) Amount

For each Plan Year, the Employer shall make a Matching Contribution on behalf of each Participant who defers Compensation for the Plan Year and satisfies the requirements of Section 5.01(a)(ii) of the Adoption Agreement equal to [complete the ones that are applicable]:

(A) o _____[insert p ercentage] of the Compensation the Participant has elected to defer for

the Plan Year

(E) ý Not Applicable [Proceed to Section 5.01(b)]

(ii) Eligibility for Matching Contribution

A Participant who defers Compensation for the Plan Year shall receive an allocation of Matching Contributions determined in accordance with Section 5.01(a)(i) provided he satisfies the following requirements [complete the ones that are applicable]:

(A) o Describe requirements:

(B) o Is selected by the Employer in its sole discretion to receive an allocation of Matching Contributions

(C) o No requirements

(iii) Time of Allocation

Matching Contributions, if made, shall be treated as allocated [select one]:

(b) Other Contributions

(i) Amount

For each Plan Year, the Employer shall make a contribution on behalf of each Participant who satisfies the requirements of Section 5.01(b)(ii) equal to [complete the ones that are applicable]:

(A) o An amount equal to [insert number] % of the Participant's Compensation

(B) o An amount determined by the Employer in its sole discretion

(C) o Contributions for each Participant shall be limited to $

(D) ý Other:

An amount equal to 20% of the Participant's Compensation unless a greater or lesser amount (including 0%) is otherwise determined (for all Participants or for any one or more Participants) by the Compensation and Management Development Committee of the Plan Sponsor's Board of Directors. "Compensation" shall be determined on the basis of the Plan Year for which the contribution is made; provided, however, that for the short Plan Year beginning on September 1, 2009, "Compensation" shall be determined on the basis of calendar year 2009.

(E) o Not Applicable [Proceed to Section 6.01]

(ii) Eligibility for Other Contributions

A Participant shall receive an allocation of other Employer contributions determined in accordance with Section 5.01 (b)(i) for the Plan Year if he satisfies the following requirements [complete the one that is applicable]:

(A) o Describe requirements:

(B) o Is selected by the Employer in its sole discretion to receive an allocation of other Employer contributions

(C) ý No requirements

(iii) Time of Allocation

Employer contributions, if made, shall be treated as allocated [select one]:

(A) o As of the last day of the Plan Year

(B) ý At such time or times as the Employer shall determine in its sole discretion

(C) Other:

(c) No Employer Contributions

o Employer contributions are not permitted under the Plan.

6.1 DISTRIBUTIONS

The timing and form of payment of distributions made from the Participant's vested Account shall be made in accordance with the elections made in this Section 6.01 of the Adoption Agreement except when Section 9.6 of the Plan requires a six month delay for certain distributions to Key Employees of publicly traded companies.

(a) Timing of Distributions

(i) All distributions shall commence in accordance with the following [choose one]:

(A) ý As soon as administratively feasible following the "distribution event" (described in Section 6.01(b) of this Adoption Agreement) and, in all cases except when a six-month delay rules applies, within 90 days after such distribution event; provided, however, that when the distribution event is Separation from Service (and regardless of whether a Participant is actually a Key Employee for whom a six-month delay in payment is required), distributions will commence on the first day of the seventh month following Separation from Service.

(B) o Monthly on specified day 5th [insert day]

(C) o Annually on specified month and day ___[insert ___month and day]

(D) o Calendar quarter on specified month and day [___month of quarter (insert 1,2 or 3); ___day (insert day)]

(ii) The timing of distributions as determined in Section 6.01(a)(i) shall be modified by the adoption of:

(A) o Event Delay - Distribution events other than those based on Specified Date or Specified Age will be treated as not having occurred for ___months [insert number of months].

(B) o Hold Until Next Year — Distribution events other than

those based on Specified Date or Specified Age will be treated as not having occurred for twelve months from the date of the event if payment pursuant to Section 6.01(a)(i) will thereby occur in the next calendar year or on the first payment date in the next calendar year in all other cases.

(C) o Immediate Processing — The timing method selected by the Plan Sponsor under Section 6.01(a)(i) shall be overridden for the following distribution events [insert events]:

(D) ý Not applicable.

(b) Distribution Events

The items checked below represent the Plan's distribution events. In the case of any Participant, the applicable distribution event is the earliest of the events checked below. Except as specifically provided elsewhere in the Plan and Adoption Agreement, all distributions will be made in five installments, with the first installment paid at the time described in Section 6.01(a) hereof and the last four installments paid on anniversaries of the first installment payment. Each installment shall be equal to the applicable percentage below multiplied by the value of the Participant's Account:

Installment	Percentage
First	20%
Second	25%
Third	33 1/3%
Fourth	50%
Fifth	100%

Lump Sum Installments

(i) o Specified Date

___years

(ii) o Specified Age

___years

(iii) o Separation from Service

___years

(iv) ý Separation from Service plus 6 months

5 years

(v) o Separation from Service plus years
months ___[not to exceed ___months]

___years

(vi) o Retirement

___years

(vii) o Retirement plus 6 months

___years

(viii) o Retirement plus ___months [not to exceed
___months]

(ix) o Later of Separation from Service or
Specified ___Age

(x) o Later of Separation from Service or
Specified ___Date

(xi) ý Disability

___years

___years

___years

5 years

(xii) ý Death

5 years

(xiii) o Change in Control

___years

The minimum deferral period for Specified Date or Specified Age event shall be N/A years. Installments

will be paid [select each that applies]

o Monthly
o Quarterly
ý Annually - as described above

If the applicable distribution event is a Separation from Service and the Participant dies after receipt of the first installment and before receipt of the fifth installment, any installment(s) remaining unpaid at death shall be paid, at the same time(s) that such installment(s) would have been paid to the Participant, to the Participant's Beneficiary. However, if such Beneficiary dies after s/he receives the first of such remaining installments, and before s/he receives the last of such remaining installments, then, notwithstanding any provision above of this Section 6.01(b) or any other provision of this Plan to the contrary, any installment(s) remaining unpaid on the date of death of the Beneficiary shall thereupon cease to be payable, and any benefits payable to or in respect of the Participant under this Plan shall thereupon be deemed to have been paid in full.

If the applicable distribution event is a Separation from Service and the Participant is entitled to a benefit hereunder but dies prior to receipt of the first installment, then installments will be paid to the Beneficiary commencing at the time that would apply under Section 6.01(a)(i)(A) if the applicable distribution event were death, i.e., commencing within 90 days after death, but not later than the latest date within such 90-day period on which the first installment that would have been paid to the Participant on account of Separation from Service

under this Plan if s/he had lived would have been considered timely under Treasury Regulation 1.409A-3(d), and the last four installments will be paid on anniversaries of the first installment payment. If the Beneficiary dies after s/he receives the first installment and before s/he receives all five installments, then, notwithstanding any provision above of this Section 6.01(b) or any other provision of the Plan to the contrary, any installment(s) remaining unpaid on the date of death of the Beneficiary shall thereupon cease to be payable, and any benefits payable to or in respect of the Participant under this Plan shall thereupon be deemed to have been paid in full.

If the applicable distribution event is death, i.e., a Participant dies before s/he otherwise has a Separation from Service, and his or her Beneficiary is entitled to a benefit hereunder upon his or her death and the Beneficiary dies after s/he receives the first installment and before s/he receives all five installments, then, notwithstanding any provision above of this Section 6.01(b) or any other provision of the Plan to the contrary, any installment(s) remaining unpaid on the date of death of the Beneficiary shall thereupon cease to be payable, and any benefits payable to or in respect

of the Participant under this Plan shall thereupon be deemed to have been paid in full.

(c) Specified Date and Specified Age elections may not extend beyond age Not Applicable [insert age or "Not Applicable" if no maximum age applies].

(d) Payment Election Override

Payment of the remaining vested balance of the Participant's Account will automatically occur at the time specified in Section 6.01(a) of the Adoption Agreement in the form indicated upon the earliest to occur of the following events
[check each event that applies and for each event include only a single form of payment]:

o Separation from Service ___Lump sum ___Installments before Retirement

o Death
o Disability
ý Not Applicable

___Lump sum ___Installments
___Lump sum ___Installments

(e) Involuntary Cashouts — As per Plan, Section 9.9

o If the Participant's vested Account at the time of his Separation from Service does not exceed $ __ distribution of the vested Account shall automatically be made in the form of a single lump sum in accordance with Section 9.5 of the Plan.

o There are no involuntary cashouts.

(f) Retirement

o Retirement shall be defined as a Separation from Service that occurs on or after the Participant [insert description of requirements]:

ý No special definition of Retirement applies.

(g) Distribution Election Change A Participant

o Shall
ý Shall Not

be permitted to modify a scheduled distribution date and/or payment option in accordance with Section 9.2 of the Plan.

A Participant shall generally be permitted to elect such modification number of times. Administratively, allowable

distribution events will be modified to reflect all options necessary to

fulfill the distribution change election provision.

(h) Frequency of Elections The Plan Sponsor

o Has
ý Has Not

Elected to permit annual elections of a time and form of payment for amounts deferred under the Plan.

7.1 VESTING

(a) Matching Contributions

The Participant's vested interest in the amount credited to his Account attributable to Matching Contributions shall be based on the following schedule:

o Years of Service Vesting %

0 (insert '100' if there is immediate vesting) 1
2
3
4
5
6
7
8
9

o Other:

o Class year vesting applies.

ý Not applicable.

(b) Other Employer Contributions

The Participant's vested interest in the amount credited to his Account attributable to Employer

contributions other than Matching Contributions shall be based on the following schedule:

o Years of Service Vesting %

0 (insert '100' if there is immediate vesting) 1
2
3
4
5
6
7
8

9

ý Other:

A Participant shall have no vested interest in the amount credited to his Account attributable to Employer contributions until he has both attained age 55 and completed 10 Years of Service at which time his vested interest shall be 100%, subject to Section
10.1 of the Plan. Notwithstanding the foregoing, and subject to Section 10.1 of the Plan, a Participant's vested interest shall be 100% if (i) the Participant's Separation from Service occurs on or after attainment of age 55 and completion of five Years of Service, and the Participant's retirement was either requested by the President and Chief Executive Officer of the Plan Sponsor and approved by the Compensation and Management Development Committee of the Board of Directors or was requested and approved by the such Committee; or (ii) the Plan Sponsor so determines, in its sole discretion.

o Class year vesting applies.

o Not applicable.

(c) Acceleration of Vesting

A Participant's vested interest in his Account will automatically be 100%

upon the occurrence of the following events, subject to Section 10.1 of the Plan: [select the ones that are applicable]:

(i) o Death

(ii) o Disability

(iii) o Change in Control

(iv) o Eligibility for Retirement

(v) ý Other: Death or Disability on or after the date the Participant has both attained ace 55 and completed at least 5 Years of Service.

(vi) o Not applicable.

(d) Years of Service

(i) A Participant's Years of Service shall include all service performed for the Employer and

ý Shall

o Shall Not

include service performed for the Related Employer.

(ii) Years of Service shall also include service performed for the following entities:

(iii) Years of Service shall be determined in accordance with (select one)

Years of Service hereunder shall be consistent with the methodology for determining the Participant's years of "Vesting Service" under the Barnes Group Inc. Retirement Savings Plan as such plan is in effect at the time the individual becomes a Participant in this Plan, excluding, however, any period after a Separation from Service (or death or Disability); provided, however, that (i) the determination of a Participant's Years of Service shall take into account the provisions of any applicable written employment agreement or other individual agreement between the Employer and the Participant as in effect at the time the individual becomes a Participant in this Plan; and (ii) the final determination of a Participant's Years of Service shall be made by the Administrator, it being

the intent that Years of Service shall be determined in a predetermined, nondiscretionary, and objective manner.

(iv) o Not applicable.

8.1 <u>UNFORESEEABLE EMERGENCY</u>

(a) A withdrawal due to an Unforeseeable Emergency as defined in Section 2.24:

o Will
ý Will Not [if Unforeseeable Emergency withdrawals are not permitted, proceed to Section 9.01]

be allowed.

(b) Upon a withdrawal due to an Unforeseeable Emergency, a Participant's deferral election for the remainder of the Plan Year:

o Will
o Will Not

be cancelled. If cancellation occurs, the Participant may resume participation in accordance with Article 4 of the Plan.

9.01 INVESTMENT DECISIONS

Investment decisions regarding the hypothetical amounts credited to a Participant's Account shall be made by [select one]:

10.01 GRANTOR TRUST

The Employer [select one]:

ý Does
o Does Not

intend to establish a grantor trust in connection with the Plan.

11.1 TERMINATION UPON CHANGE IN CONTROL

The Plan Sponsor

o Reserves
ý Does Not Reserve

the right to terminate the Plan and distribute all amounts credited to Participant Accounts upon a Change in Control within the meaning of Section 9.7 of the Plan, in accordance with the provisions of Section 10.2 of the Plan.

11.2 AUTOMATIC DISTRIBUTION UPON CHANGE IN CONTROL

Distribution of the remaining vested balance of each Participant's Account

o Shall
ý Shall Not

automatically be paid as a lump sum payment upon the occurrence of a Change in Control as provided in Section 9.7.

12.01 GOVERNING STATE LAW

The laws of Connecticut shall apply in the administration of the Plan to the extent not preempted by ERISA.

EXECUTION PAGE

The Plan Sponsor has caused this Adoption Agreement to be executed this ___day of ___, 2012.

PLAN SPONSOR: Barnes Group Inc. ___

By: __

Title: __

APPENDIX A SPECIAL EFFECTIVE DATES

Not Applicable

Barnes Group 2009 Deferred Compensation Plan Addendum I

Purpose; Integral Part of Plan and Adoption Agreement

This Barnes Group 2009 Deferred Compensation Plan Addendum I ("Addendum I") is intended to be an integral part of the Barnes Group 2009 Deferred Compensation Plan (the "Plan") and the related Adoption Agreement (the "Adoption Agreement"), supplementing or superseding other provisions of the Plan and Adoption Agreement. As required by the context, the Plan and Adoption Agreement shall collectively be known herein as the "Plan."

Inapplicable Provisions Disregarded in Construing Documents

The documents reflecting the Plan and Adoption Agreement have been provided to Barnes Group Inc. (the "Company") by Fidelity Employer Services Company (which, with its affiliates, shall be known as "Fidelity") and, in general, have been drafted by Fidelity in a manner so that they can be adopted by multiple, unrelated employers. Thus, these documents include certain provisions that, due to elections made by the Company in the Adoption Agreement and related terms of the Plan, are not applicable to the Company and its employees ("inapplicable provisions"). By way of illustration but not by way of limitation, examples of inapplicable provisions include those relating to employee elections to defer compensation and those relating to employer matching contributions.

In construing the Company's Plan, the inapplicable provisions shall be disregarded, and the Company and its affiliates, and their directors, officers, and employees, shall have no legal, tax-related, or other responsibility or liability in connection with any of the inapplicable provisions (including by way of illustration but not by way of limitation, any responsibility or liability for ensuring that such inapplicable provisions are up- to-date and consistent with current Code or other requirements).

Interpretation, Construction, Administration; Delegation of Authority

When used under the Plan and Adoption Agreement (and notwithstanding Section 2.2 of the Plan document and Section 1.05 of the Adoption Agreement), the term "Administrator" means the Compensation and Management Development Committee of the Company's Board (the "Committee"), unless the context requires otherwise (and subject to the delegation provisions hereof). To the extent power or authority is not vested in Fidelity or another third party, the Committee shall have full power and authority to interpret and construe the terms of the Plan and Adoption

Agreement, and to administer it, and the Committee's interpretations and construction

thereof, including, but not limited to, determining the amount or recipient of any benefits to be made therefrom, shall be binding and conclusive on all persons for all purposes. The Board, the Committee, the Benefits Committee appointed by the Board (the "Benefits Committee"), their individual members, and such persons' agents and representatives shall not be liable to any person for any action taken or omitted in connection with the interpretation and administration of this Plan unless attributable to willful misconduct or lack of good faith.

The Board, the Committee, and the Benefits Committee may delegate the responsibilities allocated to them under the terms of the Plan to others, including, but not limited to, a Board delegation to the Committee or the Benefits Committee, a Committee or Benefits Committee delegation to one or more members, and a delegation by the Board or one of the committees to Company employees. As long as the delegation is lawful, neither an employee nor any other person shall have the right to raise any questions relating to such delegation of authority and responsibility for interpreting, construing, and administering the Plan.

Key Employee Determination

As permitted by Section 9.6(c) of the Plan, the Plan Sponsor elects to apply an alternative method to identify Participants who will be treated as Key Employees for purposes of the six month delay in distributions, which alternative method is the same as the method for determining "Specified Employees" that is in effect from time to time under Section 7.2 of the Barnes Group Inc. Supplemental Senior Officer Retirement Plan ("SSORP") or a successor provision of the SSORP or of any successor to the SSORP.

Identification Date for Purposes of Determining Key Employees

The Identification Date for purposes of determining Key Employees under the Plan shall be the same date as the "specified employee identification date" that is in effect from time to time under Section 7.2 of the SSORP or a successor provision of the SSORP or of any successor to the SSORP.

Effective Date for Purposes of Applying the Six Month Delay in Distributions to Key Employees

The effective date for purposes of applying the six month delay in distributions to Key Employees under the Plan shall be the same date as the "specified employee effective date" that is in effect from time to time under Section 7.2 of the SSORP or a successor provision of the SSORP or of any successor to the SSORP.

Certain Code Section 409A Issues

Notwithstanding any provision of the Plan (including, but not limited to Section 9.2), Adoption Agreement, or this Addendum to the contrary, installment payments to a Participant or Beneficiary shall be treated as a series of separate payments and not as a single payment.

Any compensation that may be paid or provided pursuant to this Plan is intended to qualify for an exclusion from Section 409A of the Code or to comply with Section 409A of the Code, so that none of such compensation will be includible in any Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code. This Plan shall be administered, interpreted, and construed to carry out such intention, and any provision of this Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company and any other person or entity with any responsibility for the Plan (including, but not limited to, the Board) do not represent, warrant or guarantee that any compensation that may be paid or provided pursuant to this Plan will not be includible in a Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, nor do the Company and other persons and entities with any responsibility for the Plan make any other representation, warranty or guaranty to any Plan Participant as to the tax consequences of this Plan or of participation in this Plan. If, notwithstanding the foregoing, amounts are includible in a Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, the payment of benefits will be accelerated to the extent determined by the Committee and permitted by Treasury Regulation section 1.409A-3(j)(vii).

Amendment and Termination

This Addendum I (and any other addendum) may be amended and terminated to the same extent as any other provision of the Plan, consistent with Article 10 thereof.

BARNES GROUP INC.

NON- EMPLOYEE DIRECTOR DEFERRED STOCK PLAN

as amended and restated on December 31, 2008, effective on that date

Section 1: Establishment of Plan

The purpose of this Plan is to provide a means through which Directors of the Company may share in its long-term growth by acquiring a common stock ownership in the Company. The Plan was adopted by the Board of Directors in 1989 and was amended in 1994. A participant's right to shares granted under the Plan before July 16, 2003 was earned and vested within the meaning of Treasury Regulation section 1.409A- 6(a)(2) when the participant was elected to the Board of Directors. On July 16, 2003 the Plan was amended to require that any directors elected after that date satisfy a vesting requirement of three years' service in order to vest in shares granted to them under the Plan. The Plan was further amended on December 15, 2005 by the Committee to stop any further grants of rights to acquire shares under the Plan, and on February 16, 2006 that amendment was ratified by the Board of Directors. No new directors were elected to the Board of Directors after July 16, 2003 and on or before December 15, 2005, when the Plan was amended to stop any further grants of rights to acquire shares under the Plan. Accordingly, all rights to acquire shares under the Plan were granted before July 16, 2003 and thus were earned and vested before January 1, 2005 for purposes of Treasury Regulation section 1.409A-6(a)(2). The Plan was further amended on December 31, 2007 to adopt the alternative method of identifying "specified employees" and the "specified employee effective date" that are incorporated in Section 9.2 hereof. The Plan was further amended and restated on December , 2008 to add provisions that are intended to clarify that any Dividend Equivalents that are not considered earned and vested before January 1, 2005 under Treasury Regulation section 1.409A-6(a)(2) qualify as short-term deferrals under Treasury Regulation section 1.409A-1(b)(4) and comply with Section 409A of the Internal Revenue Code and the Treasury Regulations and official guidance thereunder.

Section 2: Definitions

When used in this Plan, the following terms shall have the definitions set forth in this section:

2.1 "AAA" shall have the meaning set forth in Section 6 hereof.

2.2 "Board of Directors" shall mean the Board of Directors of Barnes Group Inc.

2.3 "Change-in-Control" shall have the meaning set forth in the Barnes Group Inc. Employee Stock And Ownership Program, as amended and in effect from time to time.

2.4 "Committee" shall have the meaning set forth in Section 3.4 hereof.

2.5 "Company" shall mean Barnes Group Inc.

2.6 "Delivery Date" shall have the meaning set forth in Section 4.1 hereof.

2.7 "Director" shall mean a member of the Board of Directors who is not an executive officer of the Company.

2.8 "Disability" shall have the meaning set forth in the Company's long-term disability plan.

2.9 "Grant Date" shall have the meaning set forth in Section 3.1 hereof.

2.10 "Shares" shall have the meaning set forth in Section 3.1 hereof.

Section 3: Deferred Stock Grant

3.1 Each Director shall be granted as of the date of election to the Board of Directors (the "Grant Date") the right to receive, without payment to the Company and at the applicable time or times provided by Section 4 hereof, 6,000 shares of the common stock of the Company (the "Shares"). A Director shall have no rights as a stockholder of the Company with respect to any of the Shares until the Shares are delivered to the Director pursuant to Section 4 hereof.

3.2 If the number of outstanding shares of common stock of the Company is changed as a result of a stock dividend, stock split, reverse stock split or the like without additional consideration to the Company, the number of Shares shall be adjusted to correspond to the change in the outstanding shares of common stock; and in the case of any reorganization or recapitalization of the Company (by reclassification of its outstanding common stock or otherwise), or its consolidation or merger with or into another corporation, or the sale, conveyance, lease or other transfer by the Company of all or substantially all of its property, pursuant to any of which events the then outstanding shares of common stock are combined, or are changed

into or become exchangeable for other shares of stock or property, the Director shall be entitled to receive, in lieu of the Shares that s/he would otherwise be entitled to receive and without any payment, the shares of stock or property which the Director would have received upon such reorganization, recapitalization, consolidation, merger, sale or other transfer, if immediately prior thereto s/he had owned the Shares that s/he would otherwise be entitled to receive pursuant to this Plan and had exchanged such Shares in accordance with the terms of such reorganization, recapitalization, consolidation, merger, sale or other transfer.

3.3 In no event (a) may the Director sell, exchange, transfer, assign, pledge, hypothecate, mortgage or dispose of the right to receive the Shares or any interest therein, nor (b) shall the right to receive the Shares or any interest therein be subject to anticipation, attachment, garnishment, levy, encumbrance or charge of any

nature, voluntary or involuntary, by operation of law or otherwise. Any attempt, whether voluntary or involuntary, to sell, exchange, transfer, assign, pledge, hypothecate, mortgage, dispose, anticipate, attach, garnish, levy upon, encumber or charge the right to receive the Shares or any interest therein shall be null and void and the other party to the transaction shall not obtain any rights to or interest in the Shares. The foregoing sentences in this Section 3.3 shall not prevent the assignment or transfer of the right to receive the Shares and any interest therein by will or applicable laws of descent and distribution, or prevent the Director from designating one or more beneficiaries to receive the Shares in the event of his or her death; provided, that such designation shall have been received in writing by the Company before such death and the last such designation shall be controlling.

3.4 Notwithstanding Section 3.1, if the Director's service as a director of the Company continues until the date on which a Change-in-Control occurs, the Director shall have the right immediately to receive the Shares. However, if such Change-in-Control occurs less than six months after the Grant Date and the Compensation and Management Development Committee of the Board of Directors (the "Committee") (other than the Director, if s/he is a member thereof) requests in writing before the date of such Change-in-Control that the Director agree in writing to remain a director of the Company through the date which is six months after the Grant Date with substantially the same title, duties, authority, compensation and indemnification as on the day immediately preceding the Change-in-Control, then in that event the Director shall have the right to receive the Shares pursuant to this Section 3.4 only if the Director executes such written agreement and delivers it to the Company not later than one week after the date of such Change-in-Control, in which case the Director shall have the right to receive the Shares when the Director delivers such written agreement or, if later, on the date on which such Change-in-Control occurs.

3.5 If the Director, at any time before the Shares are delivered: (i) directly or indirectly, whether as an owner, partner, shareholder, consultant, agent, employee, investor or in any other capacity, accepts employment with, renders services to or otherwise assists any other business which competes with the business conducted by the Company or any of its subsidiaries, during the Director's last two years with the Company or any of its subsidiaries; (ii) directly or indirectly, hires or solicits or arranges for the hiring or solicitation of any employee of the Company or any of its subsidiaries on behalf of any business or enterprise other than the Company or a subsidiary, or encourages any such employee to leave such employment; (iii) uses, discloses, misappropriates or transfers confidential or proprietary information concerning the Company or any of its subsidiaries

(except as required by the Director's work responsibilities with the Company or any of its subsidiaries); (iv) is convicted of a crime against the Company or any of its subsidiaries; or (v) engages in any activity in violation of the policies of the Company or any of its subsidiaries, including without limitation the Company's Code of Business Ethics and Conduct, or, at any time, engages in conduct adverse to the best interests of the Company or any of its subsidiaries; then should any of the foregoing events occur, the right to receive the Shares and any interest therein and any future dividend equivalents shall be forfeited unless the Committee (other than the Director, if s/he is a member thereof), in its sole discretion, elects otherwise. The provisions of this Section 3.5 are in addition to any other agreements related to non-competition, non-solicitation and preservation of Company confidential and proprietary information entered into between the Director and the Company, and nothing herein is intended to waive, modify, alter or amend the terms of any such other agreement.

Section 4: Delivery of the Shares

4.1 The Shares shall be delivered to each Director by, at the Director's election, issuance of a stock certificate for the Shares or entry of a credit for the Shares in a book entry account in the Director's name either on the first business day of the month immediately following his/her termination as a Director (the "Delivery Date") or, at the election of the Director, on the fifth anniversary of the Delivery Date (or if such date is not a business day, on the first business day thereafter) or in five annual installments (as equal as practical, rounded to the nearest whole share, and not more in the aggregate than the total number of Shares that the Director is entitled to receive) commencing on the Delivery Date. The aforesaid election shall be made by a newly elected Director within thirty days after election to the Board of Directors.

4.2 A Director who is first elected after July 16, 2003 shall meet a minimum service requirement of three continuous years as a member of the Board of Directors, beginning on the Grant Date and ending on the third anniversary thereof, in order to receive 6,000 Shares. If such Director's service is terminated due to a reason other than death or Disability, before the expiration of such minimum service period, then a prorata portion of the Shares, based on the Director's period of service and rounded to the nearest number of whole shares, shall be delivered in accordance with this Section 4. Such prorata portion shall be the number of Shares equal to 6,000 multiplied by a fraction which shall not exceed the number one (1), the

numerator of which shall be the number of months elapsed from the Grant Date until the date of such termination of service and the denominator of which fraction shall be the number 36.

4.3 In the event of the death of a Director prior to earning 6,000 Shares, 6,000 Shares shall be delivered to the beneficiary designated by the Director or, in the absence of such designation, to the Director's estate. In the event of the Disability of a Director prior to earning 6,000 Shares, 6,000 Shares shall be delivered to such Director.

4.4 Regardless of any election by a Director to defer delivery of the Shares, the Committee may in its sole discretion deliver to the Director all of the Shares that the Director is entitled to receive at any time on or after the Delivery Date.

4.5 The Shares shall be Treasury shares.

Section 5: Dividend Equivalents

5.1 The grant of the right to receive the Shares shall also entitle the Director to receive Dividend Equivalents. On each date on which a dividend (other than a common stock dividend) is paid to the holders of common stock the record date of which falls during the period commencing on the Grant Date and ending on the date when the Shares are delivered pursuant to Section 4 hereof, the Company shall pay the Director an amount of money determined by multiplying (a) the

number of the Shares that the Director is entitled to receive, times (b) the dividend per share paid on such dividend payment date. However, if the dividend is paid in property other than cash or common stock, the amount of money to be paid to the Director in respect of such dividend shall be determined by multiplying (i) the number of the Shares that the Director is entitled to receive, times
(ii) the fair market value on such dividend payment date of the property that was paid per share of common stock as a dividend on such dividend payment date. For the avoidance of doubt, the Director's entitlement to be paid Dividend Equivalents pursuant to the preceding provisions of this Section 5.1 on any dividend payment date the record date of which precedes the Delivery Date is (and always has been) contingent on the Director's service as a Director continuing until the first day of the month in which such record date occurs, except in the case of a record date which both precedes the Delivery Date and falls in the same month as the Delivery Date, in which case the Director's entitlement to be paid Dividend Equivalents pursuant to the preceding provisions of this Section 5.1 on the dividend payment date for such record date is (and always has been) contingent on the Director's service as a Director continuing until the first day of the month before the month in which such record date occurs. Notwithstanding anything to the contrary herein, the Director shall not be required to reimburse the Company for any dividend equivalents previously paid to the Director with respect to Shares that are not delivered to the Director pursuant to Section 4.2 hereof.

5.2 At the election of a Director, which election may be changed from time to time, the Dividend Equivalents may be paid in cash or invested in the Company's common stock through an arrangement similar to the Company's plan for dividend investment. For the avoidance of doubt, no such election of the medium of payment may change the time or form of payment of any Dividend Equivalents.

5.3 A Director who subsequently becomes an employee of the Company before the Delivery Date shall be entitled to continue to receive Dividend Equivalents.

Section 6: Interpretation

The Committee (other than the Director, if s/he is a member thereof) shall interpret and construe this Plan and make all determinations thereunder, and any such interpretation, construction or determination by the Committee shall be binding and conclusive on the Company and the Director and on any person or entity claiming under or through either of them.

Any claim, demand or controversy arising from such interpretation, construction or determination by the Committee shall be submitted first to a mediator in accordance with the rules of the American Arbitration Association ("AAA") by submitting a mediation request to the Corporate Secretary of the Company within thirty (30) days of the date of the Committee's interpretation or construction. The mediation process shall conclude upon the earlier of: (a) the resolution of the dispute; (b) a determination by either the mediator or one or more of the parties that all settlement possibilities have been exhausted and there is no possibility of resolution; or (c) thirty (30) days have passed since the filing of a request to mediate with the AAA. A party who has previously submitted a dispute to mediation, and which dispute has not been resolved, may submit such dispute to binding arbitration pursuant to the rules of the AAA. Any arbitration proceeding for such dispute must be initiated within fourteen
(14) days from the date that the mediation process has concluded. The prevailing party shall recover its costs and reasonable attorney's fees incurred in such arbitration proceeding. The Director and the Company specifically understand and agree that the failure of a party to timely initiate a proceeding hereunder shall bar the party from any relief or other proceeding and any such dispute shall be deemed to have been finally and completely resolved. All mediation and arbitration proceedings shall be conducted in Bristol, Connecticut or such other location as the Company may determine and the Director agrees that no objection shall be made to such jurisdiction or venue, as a *forum non conveniens* or otherwise. The arbitrator's authority shall be limited to resolution of the legal disputes between the parties and the arbitrator shall not have authority to modify or amend this Plan or the Committee's interpretation or construction thereof, or abridge or enlarge rights available under applicable law. Any court with jurisdiction over the parties may enforce any award made hereunder.

Section 7: Amendment and Termination; Term

7.1 The Committee may at any time terminate this Plan and it may, at any time, or from time to time, amend or suspend and, if suspended, reinstate, this Plan in whole or in part; provided, that any such amendment of this Plan shall be contingent on obtaining the approval of the stockholders of the Company if the Committee determines that such approval is necessary to comply with any requirement of law, including the rules of any stock exchange, stock market or automated quotation system on which the Company's equity securities are traded or quoted.

7.2 The expiration of this Plan, after which no rights to Shares may be granted hereunder, shall be December 15, 2005; provided, that the administration of this Plan shall continue in effect until all matters have been settled relating to the delivery of Shares for which rights have been previously granted.

Section 8: General

8.1 The Company will make reasonable efforts to comply with all applicable federal and state securities laws. However, the Company will not issue any Shares pursuant to this Plan if their issuance would result in a violation of any such law. If at any time the Committee (other than the Director, if s/he is a member thereof) shall determine, in its discretion, that the listing, registration or qualification of any Shares subject to this Plan upon any securities exchange or under any state or Federal law, or the consent or approval of any government regulatory body, is necessary or desirable as a condition of, or in connection with, the granting of rights under this Plan or the issue of the Shares, no rights under the Plan may be exercised and the Shares may not be delivered, in whole or in part, unless such listing, registration, qualification, consent or approval shall have been effected or obtained free of any conditions not acceptable to the Committee and any delay caused thereby shall in no way affect the minimum service requirement described in Section 4.2.

8.2 By accepting the right to receive the Shares and Dividend Equivalents, the Director recognizes and agrees that the Company, its stockholders and its subsidiaries, and each of their officers, directors, agents and employees, including but not limited to the Board and the Committee, in their oversight or conduct of the business and affairs of the Company and its subsidiaries, or, in the exercise by the Company's stockholders of their voting rights, may in good faith act or omit to act, or cause the Company and/or a subsidiary to act or omit to act, in a manner that will, directly or indirectly, prevent all or part of the Shares or

Dividend Equivalents from becoming deliverable. No provision of this Plan shall be interpreted or construed to impose any liability upon the Company, any stockholder of the Company, any subsidiary, or any officer, director, agent or employee of the Company or any subsidiary, or the Board or the Committee, for any forfeiture of the Shares or Dividend Equivalents or any interest therein that may result, directly or indirectly, from any such action or omission, or shall be interpreted or construed to impose any obligation on the part of any such entity or person to refrain from any such action or omission.

8.3 This Plan shall be governed by and construed in accordance with the internal laws of the State of Delaware, without regard to the principles of conflicts of laws thereof.

Section 9: Certain 409A Provisions

9.1 Notwithstanding any provision of this Plan to the contrary, (a) no "distributions" (within the meaning of Treasury Regulation section 1.409A- 1(c)(3)(v)) of deferred

compensation that is subject to Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") may be made pursuant to this Plan to a "specified employee" (within the meaning of Treasury Regulation section 1.409A-1(i))("Specified Employee") due to a separation from service as defined in Treasury Regulation section 1.409A-1(h) ("Separation from Service") before the date that is six months after the date of such Specified Employee's Separation from Service (or, if earlier than the end of the six month period, the date of his or her death); and (b) any distribution that, but for the preceding clause (a), would be made before the date that is six months after the date of the Specified Employee's Separation from Service shall be paid on the first day of the seventh month following the date of his or her Separation from Service (or, if earlier, within 14 days after the date of his or her death). For the avoidance of doubt, the preceding sentence shall apply to any amount (and only to any amount) to be paid pursuant to this Plan to which Code Section 409A(a)(2)(B)(i) (relating to Specified Employees) applies, and shall not apply to any amount to be paid pursuant to this Plan if and to the extent that such amount is not subject to Section 409A of the Code for any reason, including, without limitation, Treasury Regulation section 1.409A-1(b)(4) (relating to short-term deferrals) or the "grandfather" rules incorporated in Treasury Regulation section 1.409A-6(a).

9.2 If at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, a person who participates in or has any legally binding right, contingent or otherwise, under this Plan (a "Plan Participant"), is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code Section 416(i)(5)), then the Plan Participant shall be treated as a Specified Employee for purposes of Section 9.1 above for the entire 12- month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee

identification date, unless the Board of Directors or the Committee at any time prescribes a different method of identifying service providers who will be subject to the six month delay required by Section 409A(a)(2)(B)(i) of the Code (the "Six Month Delay") in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a "Different Identification Method") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a "Different Election"), in which case whether the Plan Participant shall be treated as a Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board of Directors or the Committee. By participating or continuing to participate in this Plan or accepting any legally binding right under this Plan, the Plan Participant irrevocably
(a) consents to any such Different Identification Method that the Board of Directors or Committee may prescribe at any time and any such Different Election that the Board of Directors or Committee may make at any time for purposes of identifying the service providers who will be subject to the Six Month Delay with respect to payments under this

Plan, and (b) agrees that the Plan Participant's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (c) waives any right he or she may have to consent to the Different Identification Method or Different Election in question if for any reason the Plan Participant's consent to such Different Identification Method or Different Election is not legally effective.

9.3 A Director's right to any series of payments of Dividend Equivalents pursuant to this Plan shall be treated as a right to a series of separate payments within the meaning of Treasury Regulation section 1.409A-2(b)(2)(iii), including without limitation for purposes of the short-term deferral rule set forth in Treasury Regulation section 1.409A-1(b)(4).

9.4 Any Shares and Dividend Equivalents payable under this Plan that were "grandfathered" from Section 409A of the Code under Treasury Regulation section 1.409A-6(a) or otherwise before this Plan was amended on December , 2008, including without limitation any Shares that have been deferred under this Plan and any Dividend Equivalents that are payable after the Delivery Date, are intended to maintain their "grandfathered" status on and after December , 2008, and any Dividend Equivalents that are payable before the Delivery Date are intended to qualify as "short-term deferrals" under Treasury Regulation section 1.409A-1(b)(4) and/or as amounts that are payable on a fixed schedule within the meaning of Treasury Regulation section 1.409A-3(i)(1), so that none of such Shares or Dividend Equivalents will be includible in any Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code. This Plan shall be administered, interpreted and construed to carry out such intentions, and any provision of this Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any Shares or Dividend Equivalents that may be paid pursuant to this Plan will not be includible in any Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, nor does the Company make any other representation, warranty or guaranty to any Plan Participant as to the tax consequences of this Plan or of participation in this Plan.

BARNES GROUP INC.
DIRECTORS' DEFERRED COMPENSATION PLAN
as amended and restated on December 31, 2008

Section 1: Establishment of Plan

The Barnes Group Inc. Directors' Deferred Compensation Plan (the "Plan") provides a means whereby non-employee Directors of the Company may defer receipt of all or a portion of the compensation they earn in their capacity as a Director of the Company. The Plan was originally effective December 1, 1987, and was amended and restated effective July 19, 1996. In accordance with Treasury Regulation section 1.409A-1(i), the Plan was further amended on December 31, 2007 to adopt an alternative method of identifying the service providers who will be subject to the six-month delay imposed by Section 409A(a)(2)(B)(i) of the Code, and to adopt January 1 as the "specified employee effective date" within the meaning of Treasury Regulation section 1.409A-1(i)(4). The Plan was further amended and restated on December 31, 2008 to reflect Section 409A of the Code and the Treasury Regulations and official guidance thereunder. If and to the extent that any Compensation deferred by a Participant before December 31, 2008 under the Plan as in effect before its amendment and restatement on December 31, 2008, and earnings on such deferred Compensation (including earnings that accrued before or that accrue after December 31, 2008), are "grandfathered" from Section 409A of the Code (i.e., are compensation to which Section 409A of the Code does not apply, according to Treasury Regulation section 1.409A-6), then on and after December 31, 2008 such deferred Compensation and earnings shall continue to be determined in accordance with, and be governed exclusively by, the provisions of the Plan as in effect before its amendment and restatement on December 31, 2008. Any Compensation deferred by a Participant before December 31, 2008 under the Plan as in effect before its amendment and restatement on December 31, 2008, and earnings on such deferred Compensation, that are not "grandfathered" from Section 409A of the Code, and any Compensation deferred by a Participant under the Plan on or after December 31, 2008, and earnings on such deferred Compensation, shall be
determined in accordance with, and be governed exclusively by, the provisions of the Plan as amended and restated on December 31, 2008, which are set forth herein. For the avoidance of doubt, (a) any "non-grandfathered" amounts that are credited to a Participant's Deferred Compensation Accounts immediately after the amendment and restatement of the Plan on December 31, 2008 shall be equal to the "non-grandfathered" amounts that were credited to the Participant's Deferred Compensation Accounts immediately before the amendment and restatement of the Plan on December 31, 2008, and (b) on and after December 31, 2008 no "non-grandfathered" amounts shall be payable under, or may be deferred under, the provisions of the Plan as in effect before its amendment and restatement on December 31, 2008.

The Plan as amended and restated on December 31, 2008 is effective on that date. However, any provision of the Plan to the contrary notwithstanding, if any provision of the Plan as so amended and restated would change the time or form of payment of any amount

that is payable under the Plan, such provision shall "apply only to amounts that would not otherwise be payable in 2008" within the meaning of paragraph .02 of §3 of Notice 2006-79 as modified by Section 3.01(B)(1) of Notice 2007-86, and shall be administered, interpreted and construed accordingly.

Section 2: Definitions

When used in this Plan, the following terms shall have the definitions set forth in this section:

2.1 "Beneficiary" means the beneficiary designated by a Participant most recently on an election form filed under the Plan before his or her death or, if no such beneficiary has been designated or if the beneficiary designated by the Participant most recently before his or her death does not survive the Participant on the payment date in question, the "Beneficiary" means the Participant's estate.

2.2 "Board of Directors" shall mean the Board of Directors of Barnes Group Inc.

2.3 "Code" means the Internal Revenue Code of 1986 as amended and in effect from time to time.

2.4 "Common Stock" shall mean the common stock, par value $0.01 per share, of the Company.

2.5 "Common Stock Unit" shall mean a unit representing one share of Common Stock.

2.6 "Company" shall mean Barnes Group Inc.

2.7 "Compensation" shall mean retainer fees earned for service as a Director of the Company, and meeting attendance fees earned for attending meetings of the Board of Directors or any of its committees. For years before 2006 only, "Compensation" also shall mean amounts payable to a Director pursuant to Section 5 of the Barnes Group Inc. Non-Employee Director Deferred Stock Plan.

2.8 "Compensation Committee" shall mean the Compensation and Management Development Committee of the Board of Directors.

2.9 "Deferred Compensation Accounts" shall mean, collectively, the Deferred Compensation Interest-Bearing Account and the Deferred Compensation Phantom Stock Account.

2.10 "Deferred Compensation Interest-Bearing Account" shall mean the bookkeeping account which is credited with deferred Compensation pursuant to Section 4.

2.11 "Deferred Compensation Phantom Stock Account" shall mean the bookkeeping account which is credited with deferred Compensation pursuant to Section 5.

2.12 "Director" shall mean a member of the Board of Directors who is not employed by the Company.

2.13 "Fair Market Value" on a specified day shall mean the closing price of the Common Stock as reported on the New York Stock Exchange, or if no sale of the Common Stock was so reported on that date, on the next preceding day on which there was such a sale.

2.14 "Participant" shall mean a Director who elects to defer Compensation under the Plan pursuant to the procedures set forth in Section 3.

2.15 "Retirement" shall mean the date on which a Director has a Separation from Service for any reason whatsoever.

2.16 "Separation from Service" shall mean a "separation from service with the service recipient" within the meaning of Treasury Regulation section 1.409A-1(h)(2)(i), where the "service recipient" means Barnes Group Inc. and all corporations and trades or businesses with which Barnes Group Inc. would be considered a single employer under Section 414(b) or Section 414(c) of the Code (as determined in accordance with the first sentence of Treasury Regulation section 1.409A-1(h)(3)).

Section 3: Participation in the Plan

3.1 On or before December 31 of any calendar year, a Director may elect to defer all or a specified percentage of the Compensation for services to be performed in the succeeding calendar year that, but for such election, would be paid in the succeeding calendar year or thereafter. Such election shall be made by filing an election form with the Secretary of the Company in substantially the form attached hereto as Exhibit A. Any such election shall become irrevocable at 5:00 P.M. on December 31 of the calendar year in which it is filed, with respect to the Participant's Compensation for services to be performed in the succeeding calendar year. Any such election to defer shall also apply to (and be irrevocable with respect to) Compensation for services to be performed in succeeding calendar years except for calendar years that follow the calendar year in which the Participant files a new election in substantially the form attached hereto as Exhibit A or a written revocation of the election with the Secretary of the Company in accordance with the Plan, which new election or written revocation becomes irrevocable pursuant to this Section 3.1. Any such new election or written revocation of an election (i) shall become irrevocable at 5:00 P.M. on December 31 of the calendar year in which it is filed, with respect to Compensation for services to be performed in the succeeding calendar year, and (ii) shall not apply to Compensation for services performed in the calendar year in which such new election or written revocation of an election is

filed with the Secretary of the Company or in any earlier calendar year or to any earnings on any such Compensation. Any election referred to in this Section 3.1 may be changed or revoked before it becomes irrevocable. Any such written revocation of an election shall be made by filing a notice with the Secretary of the Company in such form as the Secretary may prescribe, and may itself be revoked by the same means before it becomes irrevocable. Whether Compensation is for services performed in a year shall be determined in accordance with Treasury Regulation section 1.409A-2, including without limitation Treasury Regulation section 1.409A-2(a)(13).

3.2 In the case of the first year in which a Director becomes a member of the Board of Directors, the Director may make an initial deferral election within 30 days after the date the Director becomes a member of the Board of Directors, with respect to Compensation to be paid for services to be performed after the election. Such election shall be made by filing an election form with the Secretary of the Company in substantially the form attached hereto as Exhibit B. Any such election shall become irrevocable on the date during such 30 day period on which it is filed with the Secretary of the Company, with respect to Compensation to be paid in the same calendar year or thereafter for services to be performed in such calendar year and after the election. At 5:00 P.M. on December 31 of such calendar year and of each calendar year thereafter, such election to defer shall also apply to (and become irrevocable with respect to) Compensation for services to be performed in the succeeding calendar year unless (a) on or before the December 31 in question the Participant files a new election or a written revocation of the election with the Secretary of the Company in accordance with the Plan, and (b) such new election or written revocation becomes irrevocable pursuant to the next sentence. Any such new election or written revocation of an election (i) shall become irrevocable at 5:00 P.M. on December 31 of the calendar year in which it is filed with the Secretary of the Company, with respect to Compensation for services to be performed in the succeeding calendar year, and (ii) shall not apply to Compensation for services performed in the calendar year in which such new election or written revocation of an election is filed with the Secretary of the Company or in any earlier calendar year or to any earnings on any such Compensation. Any such new election shall be made by filing an election form with the Secretary of the Company in substantially the form attached hereto as Exhibit A, and may be changed or revoked before it becomes irrevocable in accordance with the preceding sentence. Any such written revocation of an election shall be made by filing a notice with the Secretary of the Company in such form as the Secretary may prescribe, and may itself be revoked by the same means before it becomes irrevocable.

3.3 At the time a Director elects to defer Compensation under the Plan, such Director may elect that deferred Compensation be credited to either (a) the Deferred Compensation Interest-Bearing Account, (b) the Deferred Compensation Phantom Stock Account, or (c) a combination of the foregoing. In the absence of an effective election to the contrary, Compensation that is deferred under the Plan shall be credited to the Deferred Compensation Phantom Stock Account.

of business on the December 31 on which they became irrevocable, and shall also apply during succeeding calendar years in accordance with the preceding sentence of this Section 3.4(c). Any change in allocation instructions referred to in this Section 3.4(c) may be changed or revoked before they become irrevocable in accordance with the preceding provisions of this Section 3.4(c). No change in allocation instructions may change the time or form of payment of any amount deferred under the Plan.

3.5 The foregoing provisions of this Section 3 shall be administered, interpreted and construed in accordance with the applicable provisions of Treasury Regulation section 1.409A-2(a).

Section 4: Deferred Compensation Interest- Bearing Account

4.1 The Company shall establish a bookkeeping account on behalf of each Participant who elects to defer Compensation to the Deferred Compensation Interest-Bearing Account. This account shall be credited with an amount equal to that portion of the Participant's deferred Compensation that the Participant elects to defer under this Section 4 at such times as the Compensation subject to such deferral would otherwise have been paid. The Company shall not be required to segregate or earmark assets with respect to such account and Participants shall have no interest in any specific asset as a result of the creation of such account.

4.2 Interest will be credited quarterly on the unpaid amount standing to any Participant's credit in the Deferred Compensation Interest-Bearing Account at the end of each quarter. The interest rate shall be the rate of interest for prime commercial loans of 90-day maturities charged by Bank of America, N.A. on the first business day of such quarter.

Section 5: Deferred Compensation Phantom Stock Account

5.1 The Company shall establish a bookkeeping account on behalf of each Participant who elects to defer Compensation to the Deferred Compensation Phantom Stock Account. At such times as the Compensation subject to such deferral would otherwise have been paid, the Deferred Compensation Phantom Stock Account shall be credited with a number of Common Stock Units (including fractional Common Stock Units) equal to (a) that portion of the Participant's Deferred Compensation that the Participant elects to defer under this Section 5, divided by (b) the Fair Market Value of the Common Stock on the date such Compensation would otherwise have been paid. The Company shall not be required to segregate or earmark Common Stock with respect to such account and Participants shall have no interest in any

specific asset as a result of the creation of such account.

5.2 Each Common Stock Unit shall be credited with dividend equivalents based on the value of any dividends which would have been paid to the Participant if he or she

had owned a number of shares of Common Stock equal to the number of his or her Common Stock Units. Such dividend equivalents shall be converted into additional Common Stock Units for the Participant based upon the Fair Market Value of shares of Common Stock on the date on which such dividend is paid.

5.3 In the event of any recapitalization, merger, consolidation, stock split or other significant corporate event affecting the Common Stock, the Common Stock Units credited to a Participant's Deferred Compensation Phantom Stock Account shall be equitably adjusted to reflect such event. No adjustment may be made pursuant to this Section 5.3 that would prevent any amount payable hereunder from being "objectively determinable" within the meaning of Treasury Regulation section 1.409A-3(i)(1).

5.4 Payments from the Deferred Compensation Phantom Stock Account shall be made only in cash, and only in accordance with Section 6 hereof.

Section 6: Payments

6.1 Payments from the amount standing to the Participant's credit in his or her Deferred Compensation Accounts shall be made due to the first to occur of the Participant's Retirement or the death of the Participant. If the first to occur is the Participant's Retirement, payments shall begin on the first day of the month following the Participant's Retirement; provided, however, that if Retirement occurs prior to the Participant's 60th birthday, said payments shall

commence on the first day of the month following the Participant's 60th birthday. In the event of the death of a Participant while he or she is a Director, then notwithstanding the foregoing provisions of this Section 6.1 payment shall be made in accordance with Section 6.4.

6.2 Subject to Section 6.3 hereof, payments due to Retirement shall be made in a lump sum or in 60 or 120 monthly installments or in 5 or 10 annual installments, as elected by the Participant in the election form pursuant to which the Compensation in question was deferred. In the absence of an effective election to the contrary, payment due to Retirement shall be made in a lump sum. Where monthly or annual installments were elected, (a) such installments shall be paid at monthly or annual intervals after the initial payment date determined in accordance with Section 6.1, and (b) the amount of any installment shall be determined by dividing the amount credited to the Participant in respect of the Compensation in question as of the day before the installment is to be paid (including any appreciation or depreciation on such Compensation in the Deferred Compensation Interest-Bearing Account and the Deferred Compensation Phantom Stock Account, as applicable), by the number of installments remaining to be paid as of that same day. For example, if as of the day before an installment is to be paid the amount credited to the Participant is $5,000, and 5 installments remain to be paid as of that day, the amount of the installment to be paid on the next day is $1,000. If at Retirement a Participant who

elected installment payments has amounts credited to the Deferred Compensation Interest-Bearing Account and the Deferred Compensation Phantom Stock Account, such installments shall be paid in proportionate amounts simultaneously from both such accounts. For example, if the amount of an installment to be paid is $1,000, and 75% of the amount credited to the Participant in respect of the Compensation in question is credited to the Deferred Compensation Interest-Bearing Account and 25% is credited to the Deferred Compensation Phantom Stock Account, then the Participant shall be paid $750 of the installment from the Deferred Compensation Interest-Bearing Account and
$250 from the Deferred Compensation Phantom Stock Account. Amounts paid which relate to a Participant's Deferred Compensation Phantom Stock Account shall be based upon the Fair Market Value of the Common Stock on the date preceding the date of payment.

6.3 If a Participant dies after Retirement and prior to receiving payment of the full amount credited to his or her Deferred Compensation Accounts, then, notwithstanding the Participant's election pursuant to Section 6.2, any installments that would have been paid to the Participant in the calendar year in which death occurs if the Participant had lived shall be paid to the Participant's Beneficiary at the time or times they would have been paid to the Participant, and the remaining balance shall be paid to the Beneficiary in a lump sum on a date in January of the calendar year following the calendar year in which the death of the Participant occurred, which date shall be determined by the Compensation Committee. The amount of such lump sum payment shall be based on the value of the deceased Participant's Deferred Compensation Accounts on the day preceding the payment date.

6.4 In the event of the death of a Participant while he or she is a Director, the Participant's Deferred Compensation Accounts shall be paid to the Participant's Beneficiary in a lump sum on a date in the calendar year following the calendar year in which the death of the Participant occurred, which date shall be determined by the Compensation Committee. The amount of such lump sum payment shall be based on the value of the deceased Participant's Deferred Compensation Accounts on the day preceding the payment date.

Section 7: Administration/Amendment

7.1 This Plan shall be administered by the Compensation Committee, whose interpretation of the Plan shall be binding on the Participants.

7.2 This Plan may be amended or terminated by the Board of Directors at any time; provided, however, that no such amendment or termination shall reduce or cancel any amount standing to a Participant's credit in the Deferred Compensation Accounts prior to the effective date of such amendment or termination, and, provided further, that no such amendment or termination may accelerate or defer compensation except as permitted by Section 409A of the Code.

Section 8: Section 409A Provisions

8.1 Notwithstanding any provision of this Plan to the contrary, (a) no "distributions" (within the meaning of Treasury Regulation section 1.409A- 1(c)(3)(v)) of deferred compensation that is subject to Section 409A of the Code may be made pursuant to this Plan to a "specified employee" (within the meaning of Treasury Regulation section 1.409A-1(i)) ("Specified Employee") due to a Separation from Service before the date that is six months after the date of such Specified Employee's Separation from Service (or, if earlier than the end of the six month period, the date of his or her death); and (b) any distribution that, but for the preceding clause (a), would be made before the date that is six months after the date of the Specified Employee's Separation from Service shall be paid on the first day of the seventh month following the date of his or her Separation from Service (or, if earlier, within 14 days after the date of his or her death). For the avoidance of doubt, the preceding sentence shall apply to any amount or benefit (and only to any amount or benefit) to be paid or provided pursuant to this Plan to which Code Section 409A(a)(2)(B)(i) (relating to Specified Employees) applies, and shall not apply to any amount or benefit to be paid or provided pursuant to this Plan if and to the extent that such amount or benefit is not subject to Section 409A of the Code for any reason.

8.2 If at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, a person who participates in or has any legally binding right, contingent or otherwise, under this Plan (a "Plan Participant"), is in Salary Grade 20 or above or meets the requirements of Code Section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code Section 416(i)(5)), then the Plan Participant shall be treated as a Specified Employee for purposes of Section 8.1 above for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board of Directors or the Compensation Committee at any time prescribes a different method of identifying service providers who will be subject to the six month delay required by Section 409A(a)(2)(B)(i) of the Code (the "Six Month Delay") in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a "Different Identification Method") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a "Different Election"), in which case whether the Plan Participant shall be treated as a

Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board of Directors or the Compensation Committee. By participating or continuing to participate in this Plan or accepting any legally binding right under

this Plan, the Plan Participant irrevocably (a) consents to any such Different Identification Method that the Board of Directors or Compensation Committee may prescribe at any time and any such Different Election that the Board of Directors or Compensation Committee may make at any time for purposes of identifying the service providers who will be subject to the Six Month Delay with respect to payments under this Plan, and (b) agrees that the Plan Participant's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (c) waives any right he or she may have to consent to the Different Identification Method or Different Election in question if for any reason the Plan Participant's consent to such Different Identification Method or Different Election is not legally effective.

8.3 Any compensation that may be paid pursuant to this Plan is intended to comply with Section 409A of the Code, so that none of such compensation will be includible in any Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code. This Plan shall be administered, interpreted and construed to carry out such intention, and any provision of this Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any compensation that may be paid or provided pursuant to this Plan will not be includible in any Plan Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, nor does the Company make any other representation, warranty or guaranty to any Plan Participant as to the tax consequences of this Plan or of participation in this Plan.

Form of AMENDED AND RESTATED

CONTINGENT DIVIDEND EQUIVALENT RIGHTS AGREEMENT

For officers

CONTINGENT DIVIDEND EQUIVALENT RIGHTS AGREEMENT executed in duplicate as of **February 13, 2008** (the " Grant Date "), between Barnes Group Inc., a Delaware corporation (the " Company "), and , an employee of the Company (the " Holder ")(the " CDER Agreement "), as amended and restated on December 31, 2008, effective January 1, 2009 (the CDER Agreement as so amended and restated being hereafter referred to as " the Agreement " or " this Agreement ").

The terms and conditions of the Agreement are set forth herein and shall apply on and after January 1, 2009. For the avoidance of doubt, and any provision of this Agreement to the contrary notwithstanding, if any provision of this Agreement (including in particular but without limitation any provision of Section 2 below) would change the time or form of payment of any amount that is payable under the CDER Agreement, such provision shall "apply only to amounts that would not otherwise be payable in 2008" within the meaning of paragraph .02 of §3 of Notice 2006-79 as modified by Section 3.01(B)(1) of Notice 2007-86, and shall be administered, interpreted and construed accordingly.

In accordance with the provisions of the Barnes Group Inc. Stock and Incentive Award Plan as amended and in effect from time to time on and after the Grant Date (the " Plan "), the Compensation and Management Development Committee of the Company's Board of Directors (the " Committee ") has authorized the execution of this Agreement and the payment of the cash compensation provided for therein.

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth and for other good and valuable consideration, the parties hereto agree as follows:

1. Grant of Contingent Dividend Equivalent Rights . Subject to the terms and conditions of this Agreement, the Company hereby grants the Holder contingent dividend equivalent rights (the " Rights "). The Rights entitle the Holder to receive from the Company the cash payments described in Section 2 below, if (and only if) Performance Share Awards are deemed earned during the Award Period pursuant to that certain Performance Share Award Agreement between the Company and the Holder dated February 13, 2008, as amended and restated on December 31, 2008, effective January 1, 2009 (the " PSA Agreement "). Capitalized terms that are not defined in this Agreement and that are defined in the PSA Agreement or the Plan shall have the meanings assigned to them in the PSA Agreement or, if no meaning is assigned to them in the PSA Agreement, in the Plan.

2. Time and Amount of Contingent Dividend Equivalent Payments . On a date during the 43 day period beginning on the first day of February and ending on the 15 th day of March that immediately follows any date on which Performance Share Awards are deemed earned during the Award Period under the PSA Agreement (which date during that 43 day period shall be determined by the Company), or, if Performance Share Awards are deemed earned during the Award Period at the time of a Change in Control pursuant to Section 4(b) or Section 6 of the PSA Agreement, on the date on which Performance Share Awards are deemed earned pursuant to Section 4(b) or Section 6 of the PSA Agreement, or if Performance Share Awards are deemed earned on December 31 of any Performance Year pursuant to Section 2 or Section 4(b) of the PSA Agreement and a Change in Control occurs after such December 31 and before Dividend Equivalents are paid on such Performance Share Awards during the 43 day period described in the first clause of this sentence, then on the date of such Change in Control, the Company will pay the Holder (or in the event of the death of the Holder, the Holder's Beneficiary) an amount of money (" Dividend Equivalents ") equal to the Fair Market Value on the money payment date of the aggregate number of shares of Common Stock that would have been credited to the Holder if, on each date on which a dividend other than a Common Stock dividend was paid to the holders of Common Stock the record date of which dividend fell during the period commencing on January 1, 2008 and ending on the date on which shares of Common Stock are issued to the Holder (or the Holder's Beneficiary) in accordance with Section 3 or Section 6 of the PSA Agreement in payment of such earned Performance Share Awards(a " Dividend Payment Date "), the Company had credited the Holder on its books with a number of shares of Common Stock determined in accordance with the following formula:

(A x B) /C

in which "A" equals the number of such earned Performance Share Awards (in no event other than a Change in Control to exceed forty-one and two-thirds percent (41 2 / 3 %) * of the number of Performance Share Awards stated in Section 1 of the PSA Agreement (rounded, in the case of a fraction, to the nearest whole Performance Share Award, as provided in Section 2(a) of the PSA Agreement) and, in the event of a Change in Control, not to exceed 100% of the number of Performance Share Awards stated in Section 1 of the PSA Agreement, unless in either case the excess is attributable solely to an adjustment pursuant to Section 7 of the PSA Agreement) plus the aggregate number of shares of Common Stock credited to the Holder pursuant to this sentence before such Dividend Payment Date as dividend equivalents on such earned Performance Share Awards, "B" equals the dividend per share paid on such Dividend Payment Date, and "C" equals the Fair Market Value per share of Common Stock on such Dividend Payment Date. However, if the dividend is paid in property other than cash, the number of shares of Common Stock credited to the Holder in respect of such dividend pursuant to the preceding sentence shall be determined in accordance with the formula set forth above, except that "B" shall equal the fair market value on the Dividend Payment Date of the property which was paid per share of Common Stock as a dividend on such Dividend Payment Date.

* 125% of 33 1 / 3 %

If a dividend record date falls before the date on which shares of Common Stock are issued to the Holder (or the Holder's Beneficiary) in accordance with Section 3 or Section 6 of the PSA Agreement in payment of such earned Performance Share Awards, but the related Dividend Payment Date falls after the date on which the Dividend Equivalents on such earned Performance Share Awards may be paid in accordance with the first sentence of this Section 2, then, notwithstanding the first sentence of this Section 2, the Dividend Equivalents on such earned Performance Share Awards shall to the extent attributable to the dividend that is payable on such Dividend Payment Date be paid on such Dividend Payment Date, unless such Dividend Payment Date falls after the 15th day of March of the calendar year following the Performance Year in which such Performance Share Awards were deemed earned under the PSA Agreement, in which case it shall be assumed for purposes of the first sentence of this Section 2 that such Dividend Payment Date falls on such 15th day of March, so that the Dividend Equivalents on such earned Performance Share Awards, including the portion thereof attributable to the dividend payable on such Dividend Payment Date, may (and shall) be paid in full on or before such 15th day of March. For example, if Performance Share Awards are deemed earned during the Award Period at the time of a Change in Control pursuant to Section 4(b) or Section 6 of the PSA Agreement, and a dividend record date falls before such Change in Control but the related Dividend Payment Date falls after such Change in Control, the Dividend Equivalents on the Performance Share Awards that are deemed earned at the time of such Change in Control shall be paid at the time of such Change in Control except to the extent of the Dividend Equivalent attributable to the dividend that is payable on the Dividend Payment Date that falls after the Change in Control, to which extent the Dividend Equivalent shall be paid on the Dividend Payment Date in question (assuming that it does not fall after the 15th day of March of the year following the Performance Year in which the Change in Control occurred). As another example, if (a) Performance Share Awards are deemed earned on December 31, 2008 pursuant to Section 2 of the PSA Agreement, (b) a dividend record date falls on March 10, 2009, (c) shares of Common Stock are issued to the Holder in payment of such earned Performance Share Awards on March 12, 2009, and (d) the Dividend Payment Date for the March 10 dividend record date falls on March 21, 2009, the Dividend Equivalents on the Performance Share Awards that are deemed earned on December 31, 2008 shall be paid in full by March 15, 2009, including any Dividend Equivalent attributable to the dividend payable on the March 21, 2009 Dividend Payment Date, which for purposes of calculating the Dividend Equivalents that are payable by March 15, 2009 shall be assumed to fall on March 15, 2009 rather than March 21, 2009.

Any provision of this Agreement to the contrary notwithstanding, in no event (except a Change in Control as a result of which Performance Share Awards are deemed earned pursuant to Section 4(b) or Section 6 of the PSA Agreement) shall

any payment be made pursuant to this Section 2 unless the Committee certifies in writing that the performance goals and any other material terms (within the meaning of Treasury Regulation section 1.162-27(e)(5)) applicable to such payment were in fact satisfied. For clarification purposes, (i) Dividend Equivalents paid pursuant to this Agreement shall be non-forfeitable when paid, and (ii) the Holder will not be entitled to receive any Dividend Equivalents under this Agreement unless the Minimum Performance Goal set forth in Section 2 of the PSA Agreement is attained or exceeded for one or more of the Performance Years in the Award Period (as such terms are defined in Section 2 of the PSA Agreement) or unless a Change in Control (within the meaning of Section 4(b) and Section 6 of the PSA Agreement) occurs during the Award Period, and (iii) any provision of this Agreement to the contrary notwithstanding, in no event shall this Agreement entitle the Holder to receive shares of Common Stock or any property other than money. An example that illustrates the intended operation of this Section 2 appears in the Appendix.

3. Additional Condition . If the Holder, at any time while Dividend Equivalents are payable hereunder: (i) directly or indirectly, whether as an owner, partner, shareholder, consultant, agent, employee, investor or in any other capacity, accepts employment by, renders services for or otherwise assists any other business which competes with the business conducted by the Company or any of its Subsidiaries in which the Holder has worked during the Holder's last two years with the Company or any of its Subsidiaries; (ii) directly or indirectly, hires or solicits or arranges for the hiring or solicitation of any employee of the Company or any of its subsidiaries, or encourages any such employee to leave such employment; (iii) uses, discloses, misappropriates or transfers confidential or proprietary information concerning the Company or any of its subsidiaries (except as required by the Holder's work responsibilities with the Company or any of its subsidiaries); or (iv) is convicted of a crime against the Company or any of its subsidiaries; or (v) engages in any activity in violation of the policies of the Company or any of its subsidiaries, including without limitation the Company's Code of Business Ethics and Conduct, or, at any time, engages in conduct adverse to the best interests of the Company or any of its subsidiaries; then should any of the foregoing events occur, the Rights shall be canceled, unless the Committee, in its sole discretion, elects not to cancel the Rights. The provisions of this Section 3 are in addition to any other agreements related to non-competition, non-solicitation and preservation of Company confidential and proprietary information entered into between the Holder and the Company, and nothing herein is intended to waive, modify, alter or amend the terms of any such other agreement.

4. No Assignment or Transferability . The Rights shall not be (i) assignable or subject to any encumbrance, pledge or charge of any nature, whether by operation of law or otherwise, (ii) subject to execution, attachment or similar process, or (iii) transferable by the Holder except by will or by the laws of descent and distribution or to a Beneficiary as defined in Section 2 of the Plan.

5. Withholding of Taxes . The Committee may cause to be made, as a condition precedent to any payment to be made hereunder, appropriate arrangements to satisfy any Federal, state or local taxes required by law to be withheld with respect to such payment.

6. No Implied Promises . By accepting the Rights and executing the CDER Agreement, the Holder recognizes and agrees that the Company and its Subsidiaries, and each of their officers, directors, agents and employees, including but not limited to the Board of Directors of the Company and the Committee, in their oversight or conduct of the business and affairs of the Company and its Subsidiaries, may in good faith cause the Company and/or a Subsidiary to act or omit to act in a manner that will, directly or indirectly, prevent all or part of the Performance Share Awards from being earned. No provision of this Agreement shall be interpreted or construed to impose any liability upon the Company, any Subsidiary, or any officer, director, agent or employee of the Company or any Subsidiary, or the Board or the Committee, for any failure to earn Performance Share Awards or Dividend Equivalents that may result, directly or indirectly, from any such action or omission, or shall be interpreted or construed to impose any obligation on the part of any such entity or person to refrain from any such action or omission.

7. Notices . Any notice hereunder by the Holder shall be given to the Senior Vice President, General Counsel and Secretary in writing and such notice by the Holder hereunder shall be deemed duly given or made only upon receipt by the Senior Vice President, General Counsel and Secretary at Barnes Group Inc., 123 Main Street, P. O. Box 489, Bristol, Connecticut 06011-0489, or at such other address as the Company may designate by notice to the Holder. Any notice to the Holder shall be in writing and shall be deemed duly given if delivered to the Holder in person or mailed or otherwise delivered to the Holder at such address as the Holder may have on file with the Company from time to time.

8. Interpretation and Disputes . The Committee shall interpret and construe this Agreement and make all determinations hereunder. Any such interpretation, construction or determination shall be final, binding and conclusive on the Company and the Holder.

Any claim, demand or controversy arising from such interpretation, construction or determination by the Committee shall be submitted first to a mediator in accordance with the rules of the American Arbitration Association (" AAA ") by submitting a mediation request to the Administrator within thirty (30) days of the date of the Committee's interpretation or construction. The mediation process shall conclude upon the earlier of: (i) the resolution of the dispute; (ii) a determination by either the mediator or one or more of the parties that all settlement possibilities have been exhausted and there is no possibility of resolution; or (iii) thirty (30) days have passed since the filing of a request to mediate with the AAA. A party who has previously submitted a dispute to mediation, and which dispute has not

been resolved, may submit such dispute to binding arbitration pursuant to the rules of the AAA. Any arbitration proceeding for such dispute must be initiated within fourteen (14) days from the date that the mediation process has concluded. The prevailing party shall recover its costs and reasonable attorney's fees incurred in such arbitration proceeding. The Holder and the Company specifically understand and agree that the failure of a party to timely initiate a proceeding hereunder shall bar the party from any relief or other proceeding and any such dispute shall be deemed to have been finally and completely resolved. All mediation and arbitration proceedings shall be conducted in Bristol, Connecticut or such other location as the Company may determine and the Holder agrees that no objection shall be made to such jurisdiction or venue, as a *forum non conveniens* or otherwise. The arbitrator's authority shall be limited to resolution of the legal disputes between the parties and the arbitrator shall not have authority to modify or amend this Agreement or the Committee's interpretation or construction thereof, or abridge or enlarge rights available under applicable law. Any court with jurisdiction over the parties may enforce any award made hereunder.

9. General .

(a) Nothing in this Agreement shall confer upon the Holder any right to continue in the employ or other service of the Company or any Subsidiary, or shall limit in any manner the right of the Company, its stockholders or any Subsidiary to terminate the employment or other service of the Holder or adjust the compensation of the Holder. Nothing in this Agreement shall confer upon the Holder any right to receive shares of Common Stock or any right as a shareholder of the Company.

(b) This Agreement shall be binding upon the successors and assigns of the Company and upon the Beneficiary, estate, legal representatives, legatees and heirs of the Holder.

(c) This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the principles of conflicts of laws thereof.

(d) Nothing in this Agreement is intended to be a substitute for, or shall preclude or limit the establishment or continuation of, any plan, practice or arrangement for the payment of compensation or fringe benefits to the Holder or any other employee of the Company or any of its subsidiaries which the Company or any of its subsidiaries now has or may hereafter put into effect, including without limitation any retirement, pension, savings or thrift, insurance, death benefit, stock purchase, incentive compensation or bonus plan.

(e) Any money that is payable pursuant to this Agreement (other than Dividend Equivalents paid on Performance Share Awards that are deemed earned at

the time of a Change in Control pursuant to Section 4(b) or Section 6 of the PSA Agreement) is intended to qualify as "performance- based compensation" within the meaning of Section 162(m)(4)(C) of the Code.

(f) Any amount that may be earned pursuant to this Agreement is intended to qualify as a short-term deferral under Treasury Regulation section 1.409A-1(b)(4), or to meet the requirements of Section 409A(a)(2), (3) and (4) of the Code, so that no amount that may be earned pursuant to this Agreement will be includible in the Holder's federal gross income pursuant to Section 409A(a)(1)(A) of the Code. The Rights and this Agreement shall be administered, interpreted and construed to carry out such intention, and any provision of this Agreement that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any amount that may be earned pursuant to this Agreement will not be includible in the Holder's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, nor does the Company make any other representation, warranty or guaranty to the Holder as to the tax consequences of the Rights or this Agreement. Notwithstanding any provision of this Agreement to the contrary, (i) no "distributions" (within the meaning of Treasury Regulation section 1.409A-1(c)(3)(v)) of deferred compensation that is subject to Section 409A of the Internal Revenue Code of 1986 as amended (the " Code ") may be made pursuant to this Agreement to a "specified employee" (within the meaning of Treasury Regulation section 1.409A-1(i))(" Specified Employee ") due to a separation from service as defined in Treasury Regulation section 1.409A-1(h) (" Separation from Service ") before the date that is six months after the date of such Specified Employee's Separation from Service (or, if earlier than the end of the six month period, the date of his or her death); and (ii) any distribution that, but for the preceding clause (i), would be made before the date that is six months after the date of the Specified Employee's Separation from Service (a " Delayed Payment ") shall be paid on the first day of the seventh month following the date of his or her Separation from Service (or, if earlier, within 14 days after the date of his or her death). For the avoidance of doubt, the preceding sentence shall apply to any payment (and only to any payment) pursuant to this Agreement to which Code Section 409A(a)(2)(B)(i) (relating to Specified Employees)

applies, and shall not apply to any payment that is not subject to Code Section 409A as a result of Treasury Regulation section 1.409A-1(b)(4) (relating to short-term deferrals) or otherwise. Also for the avoidance of doubt, any Delayed Payment shall continue to accrue Dividend Equivalents pursuant to Section 2 until it is paid pursuant to the preceding provisions of this Section 9(f). The Holder's right to any series of payments of Dividend Equivalents that are to be paid pursuant to this Agreement shall be treated as a right to a series of separate payments within the meaning of Treasury Regulation section 1.409A-2(b)(2)(iii), including without limitation for purposes of the short-term deferral rule set forth in Treasury Regulation section 1.409A-1(b)(4).

(g) The Rights are intended to qualify as "Dividend Equivalents" and "Dollar-Denominated Awards" as defined in the Plan, a copy of which has been or is herewith being supplied to the Holder and the terms and conditions of which are hereby incorporated by reference. Anything herein to the contrary notwithstanding, each and every provision of this Agreement shall be subject to the terms and conditions of the Plan.

(h) Except as otherwise provided in Section 10 below, this Agreement may only be amended in a writing signed by the Holder and an officer of the Company (other than the Holder) duly authorized to do so. This Agreement contains the entire agreement of the parties relating to the subject matter of this Agreement and supersedes and replaces all prior agreements and understandings with respect to such subject matter, and the parties have made no agreements, representations or warranties relating to the subject matter of this Agreement which are not set forth herein.

10. Consent to Certain Amendments and Provisions .

(a) By executing the CDER Agreement, the Holder hereby irrevocably (i) authorizes the Committee or the Board of Directors of the Company (the " Board "), on or before December 31, 2008 or such later date(s), if any, to which the December 31, 2008 date set forth in paragraph .01 of section 3 of IRS Notice 2006-79 as modified by section 3.01(B)(1) of IRS Notice 2007-86 is hereafter extended (the " 409A Documentary Compliance Date "), to amend the CDER Agreement and any "Prior Non-Grandfathered Compensation Arrangement" as defined in Section 10(b) below, in any respect that the Committee or the Board determines to be necessary, advisable or expedient to plan for, respond to, comply with or reflect Section 409A of the Code, and (ii) consents in advance to any and all such amendments of the CDER Agreement and any Prior Non-Grandfathered Compensation Arrangement, and (iii) consents in advance to any amendment of the Plan that the Board hereafter adopts on or before the 409A Documentary Compliance Date to plan for, respond to, comply with or reflect Section 409A of the Code, and (iv) agrees that the Holder's consent to any such amendments of the CDER Agreement, any Prior Non-Grandfathered Compensation Arrangement and the Plan shall be as effective as if such amendments were fully set forth herein, and (v) waives any right s/he may have to consent to the amendment in question if for any reason the Holder's consent to any of the aforementioned amendments is not legally effective, and (vi) recognizes and agrees that the Company does not represent, warrant or guarantee that any amendment of the CDER Agreement or any Prior Non-Grandfathered Compensation Arrangement or the Plan that is made pursuant to this Section 10(a), or any Different

Identification Method that the Board or Committee may prescribe or Different Election that the Board or Committee may make in accordance with Section 10(c) below, will have its intended tax effect or will enable compensation to be exempt from or comply with Section 409A of the Code, and that the Company does not make any other representation, warranty or guaranty to the Holder as to the tax consequences of any such amendment, Different Identification Method or Different Election. For the avoidance of doubt, nothing in this Section 10(a) is intended to authorize or constitute the Holder's consent to any amendment that would constitute a modification or extension of a stock option within the meaning of Treasury Regulation section 1.409A-1(b)(5)(v). If and to the extent that, notwithstanding the foregoing, anything herein would be interpreted or construed to authorize or constitute the Holder's consent to any such amendment, then to that extent the authorization or consent is hereby rescinded.

(b) For purposes of Section 10(a) above, a " Prior Non- Grandfathered Compensation Arrangement " means any compensation arrangement between the Company and the Holder that was entered into before the Grant Date (whether or not paid in full before the Grant Date) except to the extent that the compensation payable (or paid) under such arrangement is "grandfathered" from Section 409A of the Code (i.e., is compensation to which Section 409A of the Code does not apply, according to Treasury Regulation section 1.409A-6 or any other applicable Treasury Department guidance). In no event shall an arrangement that is grandfathered from Section 409A in the absence of this Section 10 be deemed to be a Prior Non-Grandfathered Compensation Arrangement within the meaning of
Section 10(a). The Holder recognizes and agrees that Prior Non-Grandfathered Compensation Arrangements include, but may not be limited to, (i) any stock option, restricted stock unit, performance share, performance unit or contingent dividend equivalent award that the Company granted to the Holder after December 31, 2004 under the Plan, (ii) any restricted stock unit, performance-accelerated restricted stock unit, performance share, performance unit or contingent dividend equivalent award that the Company granted to the Holder before December 31, 2004 (whether under the Plan or otherwise) that was outstanding and unvested on that date, and (iii) any non-qualified deferred compensation plan, such as the Company's Retirement Benefit Equalization Plan, Supplemental Executive Retirement Plan and Supplemental Senior Officer Retirement Plan, if and to the extent that the Holder accrued benefits or vested in benefits under such plan after that date.

(c) The Holder agrees that, if at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, the Holder is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code section 416(i)(5)),

the Holder shall be treated as a "Specified Employee" within the meaning of Code Section 409A and Treasury Regulation section 1.409A-1(i) (or other similar or successor provisions)(" Specified Employee ") for purposes of this Agreement and any Prior Non- Grandfathered Compensation Arrangement and any compensation arrangement that may hereafter be adopted by the Company in which the Holder may participate (" Future

Compensation Arrangement ") for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board or Committee hereafter prescribes a different method of identifying service providers who will be subject to the six month delay required by Section 409A(a)(2)(B)(i) of the Code (the " Six Month Delay ")(a " Different Identification Method ") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) and the transition rules and official guidance under Code Section 409A (a " Different Election "), in which case whether the Holder shall be treated as a Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board or Committee. The Holder hereby irrevocably (i) consents to any such Different Identification Method that the Committee or Board may hereafter prescribe and any such Different Election that the Committee or Board may hereafter make in accordance with that Treasury Regulation or otherwise in accordance with Code Section 409A and the transition rules and official guidance thereunder, for purposes of identifying the service providers who will be subject to the Six Month Delay with respect to payments under this Agreement, any Prior Non-Grandfathered Compensation Arrangement and any Future Compensation Arrangement, and (ii) agrees that the Holder's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (iii) waives any right s/he may have to consent to the Different Identification Method or Different Election in question if for any reason the Holder's consent to such Different Identification Method or Different Election is not legally effective.

IN WITNESS WHEREOF, the Company, with the consent of the Holder, has amended and restated the CDER Agreement on the date in 2008 indicated in the first paragraph hereof, effective January 1, 2009.

BARNES GROUP INC. BY:

Senior Vice President – Human Resources

BARNES GROUP INC.

TRUST AGREEMENT FOR SPECIFIED PLANS

This Agreement by and between Barnes Group Inc. (Company) and Webster Bank, N.A. (Trustee), effective as of the date set forth in Section 14 below.

WHEREAS, Company maintains the nonqualified deferred compensation plans listed in Appendix A (the Plans);

WHEREAS, Company has incurred or expects to incur liability under the terms of the Plans with respect to the individuals participating in the Plans;

WHEREAS, Company wishes to establish a trust (the Trust) and to contribute to the Trust assets that shall be held therein, subject to the claims of Company's creditors in the event of Company's Insolvency, as herein defined, until paid to Plan participants and their beneficiaries in such manner and at such times as specified in the Plans, except as otherwise provided in this Agreement;

WHEREAS, it is the intention of the parties that this Trust shall constitute an unfunded arrangement and shall not affect the status of any Plan as an unfunded plan maintained for the purpose of providing deferred compensation for a select group of management or highly compensated employees for purposes of Title I of the Employee Retirement Income Security Act of 1974;

WHEREAS, it is the intention of Company to make contributions to the Trust to provide itself with a source of funds to assist it in the meeting of its liabilities under the Plans;

NOW, THEREFORE, the parties do hereby establish the Trust and agree that the Trust shall be comprised, held and disposed of as follows:

Section 1. Establishment of Trust

(a) Company hereby deposits with Trustee in trust $10,000.00, which shall become the principal of the Trust to be held, administered, and disposed of by Trustee as provided in this Trust Agreement.

(b) Other than in anticipation of or after a Change in Control, the Compensation and Management Committee of the Company's Board of Directors (the CMDC) may, in its discretion, revoke the Trust and reclaim any funds deposited in the Trust, if a past or current participant as of February 10, 2009, in any nonqualified deferred compensation arrangement (whether covering solely one individual or a group of individuals) or anyone claiming under or through such a participant, obtains a judgment of a court of competent jurisdiction ordering the Company to fund the Trust or any similar trust created for the same purpose as this Trust or to increase the funding of the Trust or any similar trust created for the same purpose as this Trust for any reason whatsoever (or to pay damages for not funding, or insufficiently funding, the

Trust or any similar trust created for the same purpose as this Trust). If no such judgment has been obtained and, in all events, upon a Change in Control, neither the CMDC nor anyone else shall have the right to revoke the Trust or reclaim any funds or other assets deposited or otherwise held in the Trust unless specifically provided in paragraph (c) below, in Section 2(a) below, or elsewhere in this Agreement.

(c) Notwithstanding any other provision of this Agreement, the Company, in its sole discretion, may direct the Trustee, and the Trustee shall follow the Company's direction, to pay assets from the Trust to the Company provided that, immediately following such payment, the value of Trust assets is at least equal to 125% of the value of the vested benefits under the Plans, plus 100% of any unpaid obligations of the Company accrued prior to the date of payment and that are payable from the Trust in accordance with Section 8(b) and Section 9 hereof, to the extent the amount of these obligations has been provided to the Company in writing by the Trustee in advance of the payment. Although the Trustee is responsible, pursuant to Section 5(a) hereof, for valuing the assets of the Trust, the Trustee shall not be responsible for ensuring that the 125% standard described herein or the 125% standard described in Section 1(g) is satisfied.

(d) The Trust is intended to be a grantor trust, of which Company is the grantor, within the meaning of subpart E, part I, subchapter J, chapter 1, subtitle A of the Internal Revenue Code of 1986, as amended (the Code), and shall be construed accordingly.

(e) The principal of the Trust, and any earnings thereon shall be held separate and apart from other funds of Company and, except as otherwise provided herein, shall be used exclusively for the uses and purposes of Plan participants and general creditors as herein set forth. Plan participants and their beneficiaries shall have no preferred claim on, or any beneficial ownership interest in, any assets of the Trust. Any rights created under the Plans and this Trust Agreement shall be mere unsecured contractual rights of Plan participants and their beneficiaries against Company. Any assets held by the Trust will be subject to the claims of Company's general creditors under federal and state law in the event of Insolvency, as defined in Section 3(a) herein.

(f) Company, in its sole discretion, may at any time, or from time to time, make additional deposits of cash or other property in trust with Trustee to augment the principal to be held, administered and disposed of by Trustee as provided in this Trust Agreement. Neither Trustee nor any Plan participant or beneficiary shall have any right to compel such additional deposits.

(g) Notwithstanding the foregoing, in anticipation of a Change in Control, or upon a Change in Control, Company shall, as soon as possible, but in no event later than 10 days following the Change in Control, make a contribution to the Trust in an amount that is sufficient to ensure that, immediately after the contribution, the value of Trust assets is at least equal to 125% of the value of the vested benefits under the Plans as of the date on which the Change in Control will occur or did occur, plus 100% of any unpaid obligations of the Company accrued prior to the Change in Control that are payable from the Trust in accordance with Section 8(b) and Section 9 hereof, to the extent the amount of these obligations has been provided to the

Company in writing by the Trustee in advance of the Change in Control or within three business days thereafter. To compute the value of benefits hereunder and under Section 1(c) of this Agreement, the discount rate and other assumptions used shall be those used by the Company to value pension liabilities under the Plans for the financial statements of the Company last disclosed before the computation is made (unless a remeasurement of the pension liabilities has taken place since that time, in which case the remeasurement assumptions shall be used). In no event may this methodology be changed on or after a Change in Control or anticipated Change in Control in a manner that would produce a lower benefits value.

(h) Notwithstanding any other provision of this Agreement, in no event shall any contributions be made to this Trust, or any other actions be taken with respect to this Trust or the Plans, if such contributions or actions would trigger the tax consequences described in Code Section 409A(b) or any successor thereto.

Section 2. Payments to Plan Participants and Their Beneficiaries

(a) At such times and in accordance with such other procedures as may be determined by Company, Mercer (or any successor thereto or, in the Company's discretion, another independent actuarial services firm) shall deliver to the Trustee in writing such information as shall enable the Trustee to fulfill its obligations to pay benefits to which Participants (and any beneficiaries) are entitled under the terms of the Plans. The Trustee shall not, however, be responsible for withholding taxes from benefits or for any other tax-related withholding, reporting, or other obligations imposed by law that may apply with respect to Plan benefits and the company shall indemnify and hold the Trustee harmless with respect thereto. Such procedures and information also may, in the discretion of the Company, include the authority to pay to the Company from the Trust such amounts as the Company, in its discretion, may determine necessary or appropriate to satisfy all or any part of a tax withholding or other tax obligation with respect to any participant's or beneficiary's Plan benefits (including any income tax, Federal Insurance Contributions Act, or other tax obligation). Except as otherwise provided herein, the Trustee shall make payments to the Plan participants and beneficiaries and to the Company in accordance with such procedures and information and shall not be liable for the proper application of the Trust assets if payments are made in accordance with such procedures and information . Further, the Trustee shall not be responsible for the adequacy of the Trust to meet and discharge any and all payments and liabilities under the Plans.

(b) The entitlement of a Plan participant or his or her beneficiaries to benefits under the Plans shall be determined by Company or such party as it shall designate under the Plans.

(c) Company may make payments of benefits directly to Plan participants or their beneficiaries as they become due under the terms of the Plans. Company shall notify Trustee in writing of its decision to make payments of benefits directly prior to the time amounts are payable to participants or their beneficiaries. In addition, if the principal of the Trust, and any earnings thereon, are not sufficient to make payments of benefits in accordance with the terms of the Plans, Company shall make the balance of each such payment as it falls due. Trustee shall notify Company in writing where principal and earnings are not sufficient. In no event shall Company's obligations under the terms of the Plans be limited by the existence or terms of this Trust or to the assets of the Trust.

Section 3. Trustee Responsibility Regarding Payments to Trust Beneficiaries When Company is Insolvent

(a) Trustee shall cease payment of benefits to Plan participants and their beneficiaries if the Company is Insolvent. Company shall be considered "Insolvent" for purposes of this Trust Agreement if (i) Company is unable to pay its debts as they become due, or (ii) Company is subject to a pending proceeding as a debtor under the United States Bankruptcy Code.

(b) At all times during the continuance of this Trust, the principal and income of the Trust shall be subject to claims of general creditors of Company under federal and state law as set forth below.

(1) The Board of Directors and the Chief Executive Officer of Company shall have the duty to inform Trustee in writing of Company's Insolvency. If a person claiming to be a creditor of Company alleges in writing to Trustee that Company has become Insolvent, Trustee, in

consultation with the Company's management and outside counsel, shall determine whether Company is Insolvent and, pending such determination, Trustee shall discontinue payment of benefits to Plan participants or their beneficiaries.

(2) Unless Trustee has actual knowledge of Company's Insolvency, or has received notice from Company or a person claiming to be a creditor alleging that Company is Insolvent, Trustee shall have no duty to inquire whether Company is Insolvent. Trustee may in all events rely on such evidence concerning Company's solvency as may be furnished to Trustee and that provides Trustee with a reasonable basis for making a determination concerning Company's solvency.

(3) If at any time Trustee has determined that Company is Insolvent, Trustee shall discontinue payments to Plan participants or their beneficiaries and shall hold the assets of the Trust for the benefit of Company's general creditors. Nothing in this Trust Agreement shall in any way diminish any rights of Plan participants or their beneficiaries to pursue their rights as general creditors of Company with respect to benefits due under the Plans or otherwise.

(4) Trustee shall resume the payment of benefits to Plan participants or their beneficiaries in accordance with Section 2 of this Trust Agreement only after Trustee has determined that Company is not Insolvent (or is no longer Insolvent).

(c) Provided that there are sufficient assets, if Trustee discontinues the payment of benefits from the Trust pursuant to Section 3(b) hereof and subsequently resumes such payments, the first payment following such discontinuance shall include the aggregate amount of all payments due to Plan participants or their beneficiaries under the terms of the Plans for the

period of such discontinuance, less the aggregate amount of any payments made to Plan participants or their beneficiaries by Company in lieu of the payments provided for hereunder during any such period of discontinuance; provided, however, that the frequency and amount of payments under this paragraph (c) shall

be subject to any recommendation of counsel, selected by Company or, following a Change in Control, by Trustee, on an appropriate course of action to avoid, to the extent possible, any potential adverse tax consequences to participants and beneficiaries under Code Section 409A.

Section 4. Payments to Company

Except as specifically provided herein, Company shall have no right or power to direct Trustee to return to Company or to divert to others any of the Trust assets before all payment of benefits have been made to Plan participants and their beneficiaries pursuant to the terms of the Plans.

Section 5. Investment Authority

(a) Subject to the rules relating to funding nonqualified deferred compensation plans as set forth in Code Section 409A(b) and investment guidelines provided in writing from time to time by the Company to the Trustee, the Trustee shall have exclusive power to invest and reinvest the assets of the Trust in common or preferred stocks, mutual funds, bonds or other securities, general or limited partnership interests or joint vestures, real or personal properties or interests therein, options, warrants or other instruments representing rights to receive, purchase or subscribe for the same, or evidencing or representing any other rights or interests therein, or any other property as the Trustee, in its sole discretion, shall determine and the Trustee shall have the power to do all acts, whether or not expressly authorized, that the Trustee may deem necessary or desirable to protect the assets of the Trust; except that the Trustee is authorized to hold in the Trust uninvested cash awaiting investment and to maintain such additional cash balances as it shall deem reasonable or necessary to meet anticipated distributions from or administrative costs of the Plans or the Trust, without incurring any liability for the payment of interest on such cash. The Trustee shall have no responsibility with respect to the formulation of investment guidelines. The Trustee is expressly authorized in its discretion:

(1) to sell, exchange, convey, transfer or otherwise dispose of any property constituting the Trust by private contract or at public auction, and no person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity, expediency or propriety of any such sale or other disposition;

(2) to enter into contracts for or to make commitments either alone or in company with others to sell at any future date any property acquired for the Trust or to purchase at a future date any property that it may be authorized to acquire under this Agreement;

(3) to invest in a fund consisting of securities issued by corporations and selected and retained solely because of their inclusion in, and in accordance

with, one or more commonly used indices of such securities, with the objective of providing investment results for the fund that approximate the overall performance of such designated Index;

(4) to vote upon any stocks, bonds or other securities, to give general or special proxies or powers of attorney with or without power of substitution; to exercise any conversion privileges, subscription rights or other options and to make any payments incidental thereto; to consent to or otherwise participate in corporate reorganizations or other changes affecting corporate securities and to delegate discretionary powers and to pay any assessments or charges in connection therewith; and generally to exercise any of the powers of any owner with respect

to stocks, bonds, securities or other property held in the Trust;

(5) to register any securities held in the Trust in its own name or in the name of a nominee and to hold any investment in bearer form, and to combine certificates representing such investments with certificates of the same issue held by the Trustee in other fiduciary capacities or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by any other person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or an agency or instrumentality thereof, with a federal reserve bank, but the books and records of the Trustee shall at all times show that all such investments are part of the Trust;

(6) to employ suitable agents, depositories and counsel, and to charge their reasonable expenses and compensation against the Trust if not paid directly by the Company;

(7) to borrow money from any source as may be necessary or advisable to effectuate the purposes of the Trust on such terms and conditions as the Trustee, in its absolute discretion, may deem advisable;

(8) to deposit any assets of the Trust in any interest bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or any other banking institution affiliated with the Trustee

(9) to compromise or otherwise adjust all claims in favor of or against the Trust, other than claims affecting the right of any participant or beneficiary to benefits under the Plans;

(10) to value the assets of the Trust, which valuation shall be conclusive and binding on all persons.

(b) Notwithstanding the provisions of Section 5(a), the Trustee shall not maintain the indicia of ownership of any assets of the Trust outside the jurisdiction outside the United States.

(c) Notwithstanding the provisions of Section 5(a) and 5(b), upon the written direction of the Company, the Trustee shall invest all or part of the assets of the Trust in a commercial annuity, retirement income contract or life insurance policy, with respect to any participant selected by the Company. The Trustee shall have no responsibility for any such investment other than as owner and custodian thereof.

(d) In no event may Trustee invest in securities (including stock or rights to acquire stock) or obligations issued by Company, other than a de minimis

amount held in common investment vehicles in which Trustee invests. All rights associated with assets of the Trust shall be exercised by Trustee or the person designated by Trustee, and shall in no event be exercisable by or rest with Plan participants.

(e) Company shall have the right, at any time and from time to time, in its sole discretion, to substitute assets of equal fair market value for any asset held by the Trust.

Section 6. Disposition of Income

During the term of this Trust, all income received by the Trust, net of expenses and taxes, shall be accumulated and reinvested.

Section 7. Accounting by Trustee

Trustee shall keep accurate and detailed records of all investments, receipts, disbursements, and all other transactions required to be made, including such specific records as shall be agreed upon in writing between Company and Trustee. Within 90 days following the close of each calendar year and within 30 days after the removal or resignation of Trustee, Trustee shall deliver to Company (to the attention of the Company's Vice President, Treasurer) a written account of its administration of the Trust during such year or during the period from the close of the last preceding year to the date of such removal or resignation, setting forth all investments, receipts, disbursements and other transactions effected by it, including a description of all securities and investments purchased and sold with the cost or net proceeds of such purchases or sales (accrued interest paid or receivable being shown separately), and showing all cash, securities and other property held in the Trust at the end of such year or as of the date of such removal or resignation, as the case may be. Upon the expiration of 60 days from the date of delivering such written account, the Trustee shall be forever released and discharged from all liability and accountability to the Company or any other person upon whom the Trustee has served a copy of the account with respect to the accuracy of such accounting and the propriety of all acts (and failures to act) and transactions of the Trustee reflected in such account for which it shall be responsible hereunder, except those as to which the Company or such other person has filed specific written objections with the Trustee within such 60-day period.

Section 8. Responsibility of Trustee

(a) Trustee shall act with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims,

provided, however, that Trustee shall incur no liability to any person for any action taken pursuant to a direction, request or approval given by

Company which is contemplated by, and in conformity with, the terms of the Plans or this Trust and is given in writing by Company. In the event of a dispute between Company and a party, Trustee may apply to a court of competent jurisdiction to resolve the dispute.

(b) If Trustee undertakes or defends any litigation arising in connection with this Trust, Company agrees to indemnify Trustee against Trustee's costs, expenses and liabilities (including, without limitation, attorneys' fees and expenses) relating thereto and to be primarily liable for such payments. If Company does not pay such costs, expenses and liabilities in a reasonably timely manner, Trustee may obtain payment from the Trust. Notwithstanding the foregoing, Trustee shall not be indemnified against or entitled in any other way to costs, expenses and liabilities arising out of or otherwise connected to its gross negligence.

(c) Trustee may consult with legal counsel (who, prior to a Change in Control, may also be counsel for Company) with respect to any of its duties or obligations hereunder.

(d) Trustee may hire agents, accountants, actuaries, investment advisors, financial consultants or other professionals to assist it in performing any of its duties or obligations hereunder.

(e) Trustee shall have, without exclusion, all powers conferred on Trustees by applicable law, unless expressly provided otherwise herein, provided, however, that if an insurance policy is held as an asset of the Trust, Trustee shall have no power to name a beneficiary of the policy other than the Trust, to assign the policy (as distinct from conversion of the policy to a different form) other than to a successor Trustee, or to loan to any person the proceeds of any borrowing against such policy.

(f) However, notwithstanding the provisions of Section 8(e) above, Trustee may loan to Company the proceeds of any borrowing against an insurance policy held as an asset of the Trust.

(g) Notwithstanding any powers granted to Trustee pursuant to this Trust Agreement or to applicable law, Trustee shall not have any power that could give this Trust the objective of carrying on a business and dividing the gains therefrom, within the meaning of section 301.7701 -2 of the Procedure and Administrative Regulations promulgated pursuant to the Internal Revenue Code.

Section 9. Compensation and Expenses of Trustee

Company shall pay all administrative and Trustee's fees and expenses; provided, however, that if not so paid, the fees and expenses shall be paid from the Trust. A description of the Trustee's fees and expenses is set forth in Appendix B.

Section 10. Resignation and Removal of Trustee

(a) Trustee may resign at any time by written notice to Company, which shall be effective 60 days after receipt of such notice unless Company and Trustee agree otherwise.

(b) Trustee may be removed by Company on 60 days notice or upon shorter notice accepted by Trustee.

(c) Notwithstanding (b) immediately above, upon a Change in Control, Trustee may not be removed by Company for two years except with the consent of the Plan participants.

(d) If Trustee resigns within two years after a Change in Control, Company shall apply to a court of competent jurisdiction for the appointment of a successor Trustee or for instructions.

(e) Upon resignation or removal of Trustee and appointment of a successor Trustee, all assets shall subsequently be transferred to the successor Trustee. The transfer shall be completed within 60 days after receipt of notice of resignation, removal or transfer, unless Company extends the time limit.

(f) If Trustee resigns or is removed, a successor shall be appointed, in accordance with Section 11 hereof, by the effective date of resignation or removal under paragraph (a) or (b) of this section. If no such appointment has been made, Trustee may apply to a court of competent jurisdiction for appointment of a successor or for instructions. All expenses of Trustee in connection with the proceeding shall be allowed as administrative expenses of the Trust.

Section 11. Appointment of Successor

(a) If Trustee resigns or is removed in accordance with Section 10(a) or (b) hereof, Company may appoint a third-party bank trust department or other party that may be granted corporate trustee powers under state law and that has a minimum capitalization of $1,000,000,000.00 as a successor to replace Trustee upon resignation or removal. The appointment shall be effective when accepted in writing by the new Trustee, who shall have all of the rights and powers of the former Trustee, including ownership rights in the Trust assets. The former Trustee shall execute any instrument necessary or reasonably requested by Company or the successor Trustee to evidence the transfer.

(b) The successor Trustee need not examine the records and acts of any prior Trustee and may retain or dispose of existing Trust assets, subject to Sections 7 and 8 hereof. The

successor Trustee shall not be responsible for, and Company shall indemnify and defend the successor Trustee from, any claim or liability resulting from any action or inaction of any prior Trustee or from any other past event, or any condition existing at the time it becomes successor Trustee; provided, however, that the successor Trustee shall not be entitled to indemnification or defense from any claim or liability arising out of or otherwise connected to the successor Trustee's gross negligence.

Section 12. Amendment or Termination

(a) This Trust Agreement may be amended by a written instrument executed by Trustee and Company. Notwithstanding the foregoing, no such amendment shall conflict with the terms of the Plans. Further, this Trust Agreement may not be amended upon or after a Change in Control, or in anticipation of such Change in Control, so as to alter the terms of this Trust that apply upon or after a Change in Control or in anticipation of a Change in Control.

(b) The Trust shall not terminate until the date on which Plan participants and their beneficiaries are no longer entitled to benefits pursuant to the terms of the Plans unless sooner revoked in accordance with Section 1 hereof. Upon termination of the Trust, any assets remaining in the Trust shall be returned to Company.

(c) Upon written approval of participants or beneficiaries entitled to payment of benefits pursuant to the terms of the Plans, Company may terminate this Trust prior to the time all benefit payments under the Plans have been made. All assets in the Trust at termination shall be returned to Company.

Section 13. Miscellaneous

(a) Any provision of this Trust Agreement prohibited by law shall be ineffective to the extent of any such prohibition, without invalidating the remaining provisions hereof.

(b) Benefits payable to Plan participants and their beneficiaries under this Trust Agreement may not be anticipated, assigned (either at law or in equity), alienated, pledged, encumbered or subjected to attachment, garnishment, levy, execution or other legal or equitable process, except as may otherwise be provided in the Plans.

(c) This Trust Agreement shall be governed by and construed in accordance with the laws of Connecticut.

(d) For purposes of this Trust, the term "Change in Control" shall have the meaning set forth in Appendix C.

Section 14. Effective Date

The effective date of this Trust Agreement shall be June 30, 2010.

IN WITNESS WHEREOF, the parties have caused this Agreement (including, without limitation, the Appendices that follow this page) to be executed by their duly authorized officers, effective as of the date set forth in Section 14 of this Agreement.

BARNES GROUP INC.

By: /s/ Dawn N. Edwards Dawn N. Edwards

Title: Senior Vice President, Human Resources Date: June 30, 2010

WEBSTER BANK, N.A.

By: /s/ Robert M. LeBreux Robert M. LeBreux

Title: Senior Vice President

Date: 7/21/2010

Appendix A. Plans

For purposes of this Trust, the term "Plans," as of the original effective date of this Agreement, refers to the following arrangements, provided, however, that the term "Plans" includes only the benefits payable under such arrangements to individuals who are actively employed by the Company on or after August 31, 2009, and, provided, further, that the CMDC reserves the right, in its discretion, to treat additional arrangements as "Plans."

Barnes Group Inc. Retirement Benefit Equalization Plan (RBEP) Barnes Group Inc. Supplemental Executive Retirement Plan (SERP)

Barnes Group Inc. Supplemental Senior Officer Retirement Plan (SSORP)

Provisions of any individual severance agreement to the extent (and only to such extent) that these provisions provide for additional vesting credit, or an additional benefit, that affects or complements the benefits provided under the RBEP, SERP or SSORP

Appendix B. Trustee Fees and Expenses

The fees and expenses of the Trustee shall be determined in accordance with the Fee Schedule—Institutional for Trust & Investment Management — Fixed Income Portfolio that is effective January 1, 2010, and that has been provided to the Company's Senior Vice President, Human Resources and to its Vice President, Treasurer.

Appendix C. Definition of "Change in Control"

1. **Change in Control** . A "Change in Control" shall be deemed to have occurred if the event set forth in any one of the following paragraphs shall have occurred:

(a) any Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates) representing 25% or more of the combined voting power of the Company's then outstanding securities, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (i) of paragraph (c) below; or

(b) the following individuals cease for any reason to constitute a majority of the number of directors then serving: individuals who, on the effective date hereof, constitute the Board and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board or nomination for election by the Company's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors on the date hereof or whose appointment, election or nomination for election was previously so approved or recommended; or

(c) there is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other corporation, other than (i) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any subsidiary of the Company, at least 60% of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation, or (ii) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates) representing 25% or more of the combined voting power of the Company's then outstanding securities; or

(d) the shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity, at least 60% of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

2. Definitions . For purposes of this Appendix C, the following terms shall have the following meanings:

(a) "Affiliate" shall have the meaning set forth in Rule 12b-2 promulgated under Section 12 of the Exchange Act.

(b) "Beneficial Owner" shall have the meaning set forth in Rule 13d-3 under the Exchange Act.

(c) "Board" shall mean the Board of Directors of the Company.

(d) "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended from time to time.

(e) "Person" shall have the meaning given in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 14(d) thereof, except that such term shall not include (i) any member of the Barnes family (by blood or marriage) or any entity for the benefit of, or controlled by, a member of the Barnes family (by blood or marriage), (ii) the Company or any of its subsidiaries, (iii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (iv) an underwriter temporarily holding securities pursuant to an offering of such securities, or (v) a corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company.

INCENTIVE COMPENSATION REIMBURSEMENT AGREEMENT

AGREEMENT between (the "Executive") and Barnes Group Inc. (the "Company") effective as of .

WHEREAS , the Company may from time to time grant to the Executive incentive compensation awards, pursuant to which, among other things, amounts payable shall be dependent upon the achievement of one or more specified financial targets, and in consideration of the Company making such awards to the Executive, the Executive has agreed to enter into this Agreement.

NOW, THEREFORE , in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. Reimbursement Obligation . The Executive agrees and acknowledges that, notwithstanding anything else contained in any compensatory plan, agreement, program, policy or arrangement, the Executive shall be responsible for reimbursing the Company for some or all of any amounts paid or received (or to be paid or received) in respect of any annual incentive compensation or any long-term incentive compensation awarded to the Executive after , 20 , whether awarded before or after termination of employment, if (i) payment of such compensation was contingent, in whole or in part, upon the achievement of one or more specified financial targets, and (ii) the Company implements a Mandatory Restatement (as defined in Section 3(a) below). For the avoidance of doubt, this Agreement shall not relate to the gain recognized on any stock option, the compensation received in respect of any restricted stock or restricted stock unit grant, or any other variety of equity-based compensation that has a vesting schedule based on the passage of time and the continued performance of services, and not on the achievement of any performance objectives. Similarly, this Agreement shall not apply to any award that has or had alternative vesting criteria unrelated to the performance objective affected by the Mandatory Restatement (an "Alternative Vesting Award") that have otherwise been satisfied at the time of the Mandatory Restatement.

2. Amount of Required Reimbursement . The amount which the Executive shall be obligated to reimburse the Company shall be the amount, if any, by which the compensation paid or received (or to be paid or received) exceeds the amount that would have been paid or received based on the financial results reported in the restated financial statements, in each case as determined in good faith by the Compensation and Management Development Committee (the "Compensation Committee") of the Company's Board of Directors (the "Board"), as constituted at the time of the relevant action; provided, however, that (i) no repayment will be payable in respect of an Alternative Vesting Award where the alternative vesting criteria have not yet been, but can still be, satisfied and the Compensation Committee has determined in good faith that the likelihood that such criteria will be satisfied is not immaterial; provided that the amount that would otherwise have been repaid to the Company in respect of any portion of such Alternative Vesting Award that does not become vested based on such alternative vesting criteria shall be due and payable promptly after the opportunity to satisfy the alternative vesting criteria has expired; (ii) the amount that the Executive shall be required to reimburse the Company from previously received compensation shall be reduced by the Net Tax Cost (as defined in Section 3(b) below). to the Executive of such compensation and (iii) to the extent that the price of the Company's common stock is or was a component of the performance objectives upon which the compensation was payable, the value of the stock taken into account for purposes of re-determining the level of achievement based on the restated financial results will be determined by reducing the reported stock prices during each accounting year affected by the Mandatory Restatement by an amount per share equal to the product of (A) the average weekly earnings per share multiples at which the Company's common stock traded for the 52-week period for such accounting year multiplied by (B) the amount by which earnings per share for such accounting year was reduced as a result of the Mandatory Restatement. If the Executive concludes that the amount to be repaid to the Company in accordance with subclause (iii) of the immediately preceding sentence is excessive and inequitable, he may petition the Compensation Committee to review that determination. If the Compensation Committee agrees with the

Executive's conclusion, it shall, in its sole discretion, specify an amount to be repaid to the Company that it concludes is equitable and appropriate under the circumstances. If the Compensation Committee does not agree that the formula produces a result that is excessive and inequitable, no adjustment shall be made in the amount to be repaid to the Company. The determinations, conclusions and other actions of the Compensation Committee in accordance with the two immediately preceding sentences shall be final, binding and conclusive on the Company and the Executive, and all persons claiming an interest through either such party.

3. Certain Definitions .

(a) A "Mandatory Restatement" shall mean a restatement of the Company's financial statements for 20 or any year thereafter which, in the good faith opinion of the Company's Independent Registered Public Accounting Firm, is required to be implemented pursuant to generally accepted accounting principles, but excluding any restatement which is required with respect to a particular year as a consequence of a change in generally accepted accounting rules effective after the publication of the financial statements for such year. Notwithstanding the immediately preceding sentence, a Mandatory Restatement shall not include any restatement that (i) occurs more than three years following the first date on which that the Executive is no longer employed by the Company or (ii) in the good faith judgment of the Audit Committee of the Board (the "Audit Committee"), (A) is required due to a change in the manner in which the Company's auditors interpret the application of generally accepted accounting principles (as opposed to a change in a prior accounting conclusion due to a change in the facts upon which such conclusion was

based), or (B) is otherwise required due to events, facts or changes in law or practice that the Audit Committee concludes were beyond the control and responsibility of the Executive and that occurred regardless of the Executive's diligent and thorough performance of his duties and responsibilities. In addition, in determining the amounts, if any, that the Executive shall be required to reimburse the Company pursuant to this Agreement (or that would be payable to the Executive in respect of any then in progress awards), all effects, whether positive or negative, of any change in the manner of reporting any transaction or class of transactions that the Audit Committee shall specifically agree to exclude for this purpose shall be disregarded.

(b) "Net Tax Cost" shall mean the net amount of any federal, foreign, state or local income and employment taxes paid by the Executive in respect of the compensation received that is subject to reimbursement, after taking into account any and all available deductions, credits or other offsets allowable to the Executive (including, without limitation, any deduction permitted under the claim of right doctrine), and regardless of whether the Executive would be required to amend any prior income or other tax returns. The Executive agrees that, to the extent permitted under applicable law, the Company may seek reimbursement of

such amounts from the Executive and may recapture such amounts by retaining the compensation or other amounts that would otherwise be due or payable to the Executive.

4. Non- Waiver of Rights . The failure to enforce at any time the provisions of this Agreement or to require at any time performance by the other party of any of the provisions hereof shall in no way be construed to be a waiver of such provisions or to affect either the validity of this Agreement or any part hereof, or the right of either party to enforce each and every provision in accordance with its terms.

5. Notices . All notices required or permitted under this Agreement shall be in writing and shall be deemed effective upon personal delivery or upon deposit in the United States Post Office, by registered or certified mail, postage prepaid, addressed to the other party at the address shown below, or at such other address or addresses as either party shall designate to the other in accordance with this Section 5.

If to the Company: Barnes Group Inc.

123 Main Street Bristol, Connecticut
ATTN: Senior Vice President, General Counsel and Secretary

If to the Employee:

6. Binding Effect/Assignment . This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, personal representatives, estates, successors (including, without limitation, by way of merger) and permitted assigns. Notwithstanding the provisions of the immediately preceding sentence, the Executive shall not assign all or any portion of this Agreement without the prior written consent of the Company.

7. Agreement to Arbitrate; Injunctive Relief . THE PARTIES HERETO AGREE THAT ANY CLAIM, DEMAND, DISPUTE, ACTION OR CAUSE OF ACTION ARISING UNDER OR RELATING TO THIS AGREEMENT, WHETHER SOUNDING IN CONTRACT OR TORT OR OTHERWISE (COLLECTIVELY, THE "PARTIES' DISPUTES"), SHALL BE DECIDED BY A SINGLE ARBITRATOR PURSUANT TO AN ARBITRATION UNDER THE NATIONAL RULES FOR THE RESOLUTION OF EMPLOYMENT DISPUTES OF THE AMERICAN ARBITRATION ASSOCIATION ("AAA RULES") AS MODIFIED HEREBY, AND THAT ANY PARTY TO THIS AGREEMENT MAY FILE AN ORIGINAL COUNTERPART OR A COPY OF THIS AGREEMENT INCLUDING THIS SECTION WITH THE AMERICAN ARBITRATION ASSOCIATION (THE "AAA") AS WRITTEN EVIDENCE OF THE AGREEMENT OF THE PARTIES TO SO ARBITRATE. THE PARTIES HERETO ACKNOWLEDGE THAT THEY HAVE HAD THE OPPORTUNITY TO CONSULT WITH COUNSEL REGARDING THIS SECTION, THAT THEY FULLY UNDERSTAND ITS TERMS, CONTENT AND EFFECT, AND THAT THEY VOLUNTARILY AND KNOWINGLY AGREE TO THE TERMS OF THIS SECTION AND AGREE TO ARBITRATE ALL PARTIES'
DISPUTES. Any arbitration pursuant to this Agreement shall take place in Hartford, Connecticut (or in such other location as the parties shall mutually agree in writing) before a single arbitrator having no less than ten years experience in employment matters appointed in accordance with the AAA Rules or, if the parties to the arbitration agree, a single retired judge. Notice of any demand for arbitration shall be provided in writing to the other party pursuant to Section 5 hereof and to the AAA (the "Arbitration Notice"). For the purposes of this Agreement, an arbitration shall be deemed to have been commenced at such time as the Arbitration Notice has been delivered to all the other parties pursuant to the provisions of Section 5. The parties shall be entitled to discovery in conjunction with such arbitration (with the scope of discovery to be co-extensive with discovery rights applicable to an equivalent civil action in state court). Any award rendered by the arbitrators (or, if applicable, retired judge) shall be final and binding and may be enforced in the courts of the state in which the arbitration takes place. Each party shall pay half of the fees and expenses of the arbitrator.

8. Entire Agreement . This Agreement sets forth the entire understanding of the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and plans, written or oral between them as to such subject matter.

9. Severability . If any provision of this Agreement, or any application thereof to any circumstances, is invalid, in whole or in part, such provision or application shall to that extent be severable and shall not affect other provisions or applications of this Agreement.

10. Governing Law . This Agreement shall be governed by and construed in accordance with the internal laws of the State of Connecticut, without reference to the principles of conflict of laws.

11. Modifications and Waivers . No provision of this Agreement may be modified, altered or amended except by an instrument in writing executed by the parties hereto. No waiver by either party hereto of any breach by the other party hereto of any provision of this Agreement to be performed by such other party shall be deemed a waiver of similar or dissimilar provisions at the time or at any prior or subsequent time.

12. Headings . The headings contained herein are solely for the purposes of reference, are not part of this Agreement and shall not in any way affect the meaning or interpretation of this Agreement.

13. Counterparts . This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF , the Company has caused this Agreement to be executed by an officer hereunto duly authorized, and the Executive has hereunto set his hand, as of ___, 20 .

BARNES GROUP INC.

By __

Executive:

BARNES GROUP INC.

INDEMNIFICATION AGREEMENT

This Agreement, made and entered into this ___day of ___20 ("Agreement"), by and between Barnes Group Inc., a Delaware corporation ("Corporation"), and ___("Indemnitee"):

WHEREAS, highly competent persons have recently become more reluctant to serve publicly-held corporations as directors, officers or in other capacities, unless they are provided with better protection from the risk of claims and actions against them arising out of their service to and activities on behalf of such corporations; and

WHEREAS, the current difficulty of obtaining adequate insurance and the uncertainties related to indemnification have been increasing the difficulty of attracting and retaining such persons; and

WHEREAS, the Board of Directors of the Corporation (the "Board") has determined that the increasing difficulty in attracting and retaining such persons is detrimental to the best interests of the Corporation's stockholders and that such persons should be assured that they will have better protection in the future; and

WHEREAS, it is reasonable, prudent and necessary for the Corporation to obligate itself contractually to indemnify such persons to the fullest extent permitted by applicable law, so that such persons will serve or continue to serve the Corporation free from undue concern that they will not be adequately indemnified; and

WHEREAS, this Agreement is a supplement and an addition to any rights granted under Article IV of the By-Laws of the Corporation, under the Certificate of Incorporation of the Corporation and under any resolutions adopted pursuant thereto and shall not be deemed to diminish or abrogate any rights of Indemnitee thereunder; and

WHEREAS, Indemnitee is willing to serve, continue to serve and to take on additional service for or on behalf of the Corporation on the condition that he be indemnified according to the terms of this Agreement;

NOW, THEREFORE, in consideration of the premises and the covenants contained herein, the Corporation and Indemnitee do hereby covenant and agree as follows:

Section 1. Definitions . For purposes of this Agreement:

(a) "Change in Control" means a change in control of the Corporation occurring after the Effective Date of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or in response to any similar item on any similar schedule or form) promulgated under the Securities Exchange Act of 1934 (the "Act"), whether or not the Corporation is then subject to such reporting requirement; provided, however, that, without limitation, such a Change in Control shall be deemed to have occurred if after the Effective Date
(i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Act) is or becomes the "beneficial owner" (as defined in Rule 13d-3 under the Act), directly or indirectly, of securities of the Corporation representing 50% or more of the combined voting power of the Corporation's then outstanding securities without the prior approval of at least two-thirds of the members of the Board in office immediately prior to such person attaining such percentage interest; (ii) the Corporation is a party to a merger, consolidation, sale of assets or other reorganization, or a proxy contest, as a consequence of which members of the Board in office immediately prior to

such transaction or event constitute less than a majority of the Board thereafter; or (iii) during any period of two consecutive years, individuals who at the beginning of such period constituted the Board (including for this purpose any new director whose election or nomination for election by the Corporation's stockholders was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of such period) cease for any reason to constitute at least a majority of the Board.

(b) "Corporate Status" means the status of a person who is or was a director, officer, employee, agent or fiduciary of the Corporation or of any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise which such person is or was serving at the request of the Corporation.

(c) "Disinterested Director" means a director of the Corporation who is not and was not a party to the Proceeding in respect of which indemnification is sought by Indemnitee.

(d) "Effective Date" means the date of this Agreement.

(e) "Expenses" means all reasonable attorneys' fees, retainers, court costs, transcript costs, fees of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage delivery service fees, and all other disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, or being or preparing to be a witness in a Proceeding.

(f) "Independent Counsel" means a law firm, or a member of a law firm, that is experienced in matters of corporation law and neither currently is, nor in the past five years has been, retained to represent: (i) the Corporation or Indemnitee in any other matter material to either such party, or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall

not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Corporation or Indemnitee in an action to determine Indemnitee's rights under this Agreement.

(g) "Proceeding" means any action, suit, arbitration, alternate dispute resolution mechanism, investigation, administrative hearing or any other proceeding, whether civil, criminal, administrative or investigative, except one initiated by an Indemnitee pursuant to Section 11 of this Agreement to enforce his rights under this Agreement.

Section 2. Services by Indemnitee . Indemnitee agrees to continue to serve as a director, officer, employee, agent or fiduciary of the Corporation, and, at its request, as a director, officer, employee, agent or fiduciary of certain other corporations and entities. Indemnitee may at any time and for any reason resign from any such position (subject to any other contractual obligation or any obligation imposed by operation of law).

Section 3. Indemnification - General . The Corporation shall indemnify, and advance Expenses to, Indemnitee as provided in this Agreement to the fullest extent permitted by applicable law in effect on the date hereof and to such greater extent as applicable law may thereafter from time to time permit. The rights of Indemnitee provided under the preceding sentence shall include, but shall not be limited to, the rights set forth in the other Sections of this Agreement. This Agreement shall not apply to any claims brought against the Indemnitee based on matters which antedate the effective date of this Agreement.

Section 4. Proceedings Other Than Proceedings by or in the Right of the Corporation . Indemnitee shall be entitled to the rights of indemnification provided in this Section if, by reason of his Corporate Status, he is, or is threatened to be made, a party to any threatened, pending, or completed Proceeding, other than a Proceeding by or in the right of the Corporation.

Pursuant to this Section, Indemnitee shall be indemnified against Expenses, judgments, penalties, fines and amounts paid in settlement actually and reasonably incurred by him or on his behalf in connection with any such Proceeding or any claim, issue or matter therein, if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal Proceeding, had no reasonable cause to believe his conduct was unlawful.

Section 5. Proceedings by or in the Right of the Corporation . Indemnitee shall be entitled to the rights of indemnification provided in this Section if, by reason of his Corporate Status, he is, or is threatened to be made, a party to any threatened, pending or completed Proceeding brought by or in the right of the Corporation to procure a judgment in its favor. Pursuant to this Section, Indemnitee shall be indemnified against Expenses actually and reasonably incurred by him or on his behalf in connection with any such Proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation. Notwithstanding the foregoing, no indemnification against such Expenses shall be made in respect of any claim, issue or matter in any such Proceeding as to which Indemnitee shall have been adjudged to be liable to the Corporation if applicable law prohibits such indemnification; provided, however, that, if applicable law so permits, indemnification against Expenses shall nevertheless be made by the Corporation in such event if, and only to the extent that, the Court of Chancery of the State of Delaware, or the court in which such Proceeding shall have been brought or is pending, shall determine.

Section 6. Indemnification for Expenses of a Party Who is Wholly or Partly Successful . Notwithstanding any other provision of this Agreement, to the extent that Indemnitee is, by reason of his Corporate Status, a party to and is successful, on the merits or otherwise, in

any Proceeding, he shall be indemnified against all Expenses actually and reasonably incurred by him or on his behalf in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful, on the merits or otherwise, as to one or more but less than all claims, issues or matters in such Proceeding, the Corporation shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him or on his behalf in connection with each successfully resolved claim, issue or matter. For the purposes of this Section and without limiting the

foregoing, the termination of any claim, issue or matter in any such Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

Section 7. Indemnification for Expenses of a Witness . Notwithstanding any other provision of this Agreement, to the extent that Indemnitee is, by reason of his Corporate Status, a witness in any Proceeding, he shall be indemnified against all Expenses actually and reasonably incurred by him or on his behalf in connection therewith.

Section 8. Advancement of Expenses . The Corporation shall advance all Expenses incurred by or on behalf of Indemnitee in connection with any Proceeding within twenty days after the receipt by the Corporation of a statement or statements from Indemnitee requesting such advance or advances from time to time, whether prior to or after final disposition of such Proceeding. Such statement or statements shall reasonably evidence the Expenses incurred by Indemnitee and shall include or be preceded or accompanied by an undertaking by or on behalf of Indemnitee to repay any Expenses advanced if it shall ultimately be determined that Indemnitee is not entitled to be indemnified against such Expenses.

Section 9. Procedure for Determination of Entitlement to Indemnification .

(a) To obtain indemnification under this Agreement in connection with any Proceeding, and for the duration thereof, Indemnitee shall submit to

the Corporation a written request, including therein or therewith such documentation and information as is reasonably available to Indemnitee and is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification. The Secretary of the Corporation shall, promptly upon receipt of any such request for indemnification, advise the Board in writing that Indemnitee has requested indemnification.

(b) Upon written request by Indemnitee for indemnification pursuant to Section 9(a) hereof, a determination, if required by applicable law, with respect to Indemnitee's entitlement thereto shall be made in such case: (i) if a Change in Control shall have occurred, by Independent Counsel (unless Indemnitee shall request that such determination be made by the Board or the stockholders, in which case in the manner provided for in clauses (ii) or (iii) of this Section 9(b)) in a written opinion to the Board, a copy of which shall be delivered to Indemnitee; (ii) if a Change of Control shall not have occurred, (A) by the Board by a majority vote of a quorum consisting of Disinterested Directors, or (B) if a quorum of the Board consisting of Disinterested Directors is not obtainable, or even if such quorum is obtainable, if such quorum of Disinterested Directors so directs, either (x) by Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to Indemnitee, or (y) by the stockholders of the Corporation, as determined by such quorum of Disinterested Directors, or a quorum of the Board, as the case may be; or (iii) as provided in Section lO(b) of this Agreement. If it is so determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within ten (10) days after such determination. Indemnitee shall cooperate with the person, persons or entity

making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such person, persons or entity upon reasonable advance request any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to such determination. Any costs or expenses (including attorneys' fees and disbursements) incurred by Indemnitee in so cooperating with the person, persons or entity making such determination shall be borne by the Corporation (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Corporation hereby indemnifies and agrees to hold Indemnitee harmless therefrom.

(c) If required, Independent Counsel shall be selected as follows: (i) if a Change of Control shall not have occurred, Independent Counsel shall be selected by the Board, and the Corporation shall give written notice to Indemnitee advising him of the identity of Independent Counsel so selected; or (ii) if a Change of Control shall have occurred, Independent Counsel shall be selected by Indemnitee (unless Indemnitee shall request that such selection be made by the Board, in which event (i) shall apply), and Indemnitee shall give written notice to the Corporation advising it of the identity of Independent Counsel so selected. In either event, Indemnitee or the Corporation, as the case may be, may, within 7 days after such written notice of selection shall have been given, deliver to the Corporation or to Indemnitee, as the case may be, a written objection to such selection. Such objection may be asserted only on the ground that Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 1 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. If such written objection is made, Independent Counsel so selected may not serve as Independent Counsel unless and until a court has determined that such objection is without merit. If, within 20 days after submission by Indemnitee of a written request for indemnification

pursuant to Section 9(a) hereof, no Independent Counsel shall have been selected and not objected to, either the Corporation or Indemnitee may petition the Court of Chancery of the State of Delaware, or other court of competent jurisdiction, for resolution of any objection which shall have been made by the Corporation or Indemnitee to the other's selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by such court or by such other person as such court shall designate, and the person with respect to whom an objection is so resolved or the person so appointed shall act as Independent Counsel under Section 9(b) hereof. The Corporation shall pay any and all reasonable

fees and expenses of Independent Counsel incurred by such Independent Counsel in connection with its actions pursuant to this Agreement, and the Corporation shall pay all reasonable fees and expenses incident to the procedures of this Section 9(c), regardless of the manner in which such Independent Counsel was selected or appointed. Upon the due commencement date of any judicial proceeding or arbitration pursuant to Section ll(a)(iii) of this Agreement, Independent Counsel shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

Section 10. Presumptions and Effects of Certain Proceedings .

(a) If a Change of Control shall have occurred, in making a determination with respect to entitlement to indemnification hereunder, the person or persons or entity making such determination shall presume that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 9(a) of this Agreement, and the Corporation shall have the burden of proof to overcome that presumption in connection with the making by any person, persons or entity of any determination contrary to that presumption.

(b) If the person, persons or entity empowered or selected under Section 9 of this Agreement to determine whether Indemnitee is entitled to indemnification shall not have made a determination within 60 days after receipt by the Corporation of the request therefor, the requisite determination of entitlement to indemnification shall be deemed to have been made and Indemnitee shall be entitled to such indemnification, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) prohibition of such indemnification under applicable law; provided , however , that such 60-day period may be extended for a reasonable time, not to exceed an additional 30 days, if the person, persons or entity making the determination with respect to entitlement to indemnification in good faith require(s) such additional time for the obtaining or evaluating of documentation and/or information relating thereto; and provided , further , that the foregoing provisions of this Section lO(b) shall not apply (i) if the determination of entitlement to indemnification is to be made by the stockholders pursuant to Section 9(b) of this Agreement and if
(A) within 15 days after receipt by the Corporation of the request for such determination the Board has resolved to submit such determination to the stockholders for their consideration at an annual meeting thereof to be held within 75 days after such receipt and such determination is made thereat, or (B) a special meeting

of stockholders is called within 15 days after such receipt for the purpose of making such determination, such meeting is held for such purpose within 60 days after having been so called and such determination is made thereat, or (ii) if the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 9(b) of this Agreement.

(c) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of *nolo contendere* or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the Corporation or, with respect to any criminal Proceeding, that Indemnitee had reason-able cause to believe that his conduct was unlawful.

Section 11. Remedies of Indemnitee .

(a) In the event that (i) a determination is made pursuant to Section 9 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 8 of this Agreement, (iii) the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 9(b) of this Agreement and such determination shall not have been made and delivered in a written opinion within 90 days after receipt by the Corporation of the request for indemnification, (iv) payment of indemnification is not made pursuant to Section 7 of this Agreement within ten (10) days after receipt by the Corporation of a written request therefor, or (v) payment of indemnification is not made within ten (10) days after a determination has been made that Indemnitee is entitled to indemnification or such determination is deemed to have been made pursuant to Section 9 or 10 of this Agreement, Indemnitee shall be entitled to an adjudication in an appropriate court of the State of Delaware, or in any other court of competent jurisdiction, of his entitlement to such indemnification or advancement of Expenses. Alternatively, Indemnitee, at his option, may seek an award in arbitration to be conducted by a single arbitrator pursuant to the rules of the American Arbitration Association. Indemnitee shall commence such proceeding

seeking an adjudication or an award in arbitration within 180 days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section ll(a). The Corporation shall not oppose Indemnitee's right to seek any such adjudication or award in arbitration.

(b) In the event that a determination shall have been made pursuant to Section 9 of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section shall be conducted in all respects as a *de novo* trial or arbitration on the merits and Indemnitee shall not be prejudiced by reason of that adverse determination. If a Change of Control shall have occurred,

in any judicial proceeding or arbitration commenced pursuant to this Section the Corporation shall have the burden of proving that Indemnitee is not entitled to indemnification or advancement of Expenses, as the case may be.

(c) If a determination shall have been made or deemed to have been made pursuant to Section 9 or 10 of this Agreement that Indemnitee is entitled to indemnification, the Corporation shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) prohibition of such indemnification under applicable law.

(d) The Corporation shall be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Corporation is bound by all the provisions of this Agreement.

(e) In the event that Indemnitee, pursuant to this Section, seeks a judicial adjudication of, or an award in arbitration to enforce, his rights under, or to recover damages for breach of, this Agreement, Indemnitee shall be entitled to recover from the Corporation, and shall be indemnified by the Corporation against, any and all expenses (of the kinds described in the definition of Expenses) actually and reasonably incurred by him in such judicial adjudication or arbitration, but only if he prevails therein. If it shall be determined in such judicial adjudication or arbitration that Indemnitee is entitled to receive part but not all of the indemnification or advancement of expenses sought, the expenses incurred by Indemnitee in connection with such judicial adjudication or arbitration shall be appropriately prorated.

Section 12. Non- Exclusivity; Survival of Rights; Insurance; Subrogation .

(a) The rights of indemnification and to receive advancement of Expenses as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Certificate of Incorporation or By-Laws of the Corporation, any agreement, a vote of stockholders or a resolution of directors, or otherwise. No amendment, alteration or repeal of this Agreement or any provision hereof shall be effective as to any Indemnitee with respect to any action taken or omitted by such Indemnitee in his Corporate Status prior to such amendment, alteration or repeal.

(b) To the extent that the Corporation maintains an insurance policy or policies providing liability insurance for directors, officers, employees, agents or fiduciaries of the Corporation or of any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise which such person serves at the request of the Corporation, Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any such director, officer, employee, agent or fiduciary under such policy or policies.

(c) In the event of any payment under this Agreement, the Corporation shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Corporation to bring suit to enforce such rights.

(d) The Corporation shall not be liable under this Agreement to make any payment of amounts otherwise indemnifiable hereunder if and to the extent that Indemnitee has otherwise actually received such payment under any insurance policy, contract, agreement or otherwise.

Section 13. Duration of Agreement . This Agreement shall continue until and terminate upon the later of: (a) 10 years after the date that Indemnitee shall have ceased to serve as a director, officer, employee, agent or fiduciary of the Corporation or of any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise which Indemnitee served at the request of the Corporation; or (b) the final termination of all pending Proceedings in respect of which Indemnitee is granted rights of indemnification or advancement of Expenses hereunder and of any proceeding commenced by Indemnitee pursuant to Section 11 of this Agreement. This Agreement shall be binding upon the Corporation and its successors and assigns and shall inure to the benefit of Indemnitee and his heirs, executors and administrators.

Section 14. Severability . If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Agreement (including, without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (b) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any Section of this Agreement containing any such

provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

Section 15. Exception to Right of Indemnification or Advancement of Expenses . Except as provided in Section ll(e), Indemnitee shall not be

entitled to indemnification or advancement of Expenses under this Agreement with respect to any Proceeding, or any claim therein, brought or made by him against the Corporation.

Section 16. Identical Counterparts . This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

Section 17. Headings . The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

Section 18. Modification and Waiver . No supplement, modification or amendment of this Agreement shall be binding unless executed in writing by both of the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions hereof (whether or not similar) nor shall such waiver constitute a continuing waiver.

Section 19. Notice by Indemnitee . Indemnitee agrees promptly to notify the Corporation in writing upon being served with any summons, citation, subpoena, complaint, indictment, information or other document relating to any Proceeding or matter which may be subject to indemnification or advancement of Expenses covered hereunder.

Section 20. Notices . All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given if (i) delivered by hand and receipted for by the party to whom such notice or other communication shall have been directed, or (ii)mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed:

(a) If to Indemnitee, to the home address according to the records of the Corporation on the day of the notice.

(b) If to the Corporation to: Barnes Group Inc.
123 Main Street
Bristol, CT 06010 Attention: The Secretary

or to such other address as may have been furnished to Indemnitee by the Corporation or to the Corporation by Indemnitee, as the case may be.

Section 21. Governing Law . The parties agree that this Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware.

Section 22. Miscellaneous . Use of the masculine pronoun shall be deemed to include usage of the feminine pronoun where appropriate.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

BARNES GROUP INC.

By: (Authorized Officer)

Indemnitee 17

BARNES GROUP INC.
STOCK AND INCENTIVE AWARD PLAN
as amended on December 31, 2008

Preamble

The Plan as amended on December 31, 2008, which is set forth below, is intended to apply to Awards that are granted on or after that date as well as to Awards that were granted before that date that are outstanding on that date ("Outstanding Awards"), except for Outstanding Awards that were earned and vested (within the meaning of Treasury Regulation section 1.409A-6(a)(2)) on December 31, 2004 ("Grandfathered Awards"). Unless a Grandfathered Award is amended to incorporate by reference the terms and conditions of the Plan as amended on December 31, 2008, Grandfathered Awards shall continue on and after that date to be subject to the terms and conditions of the Plan as in effect before December 31, 2008, as if the Plan had not been amended on that date.

The Plan as amended on December 31, 2008 is effective on that date. However, any provision of the Plan as so amended to the contrary notwithstanding, if any provision of the Plan as so amended would change the time or form of payment of any amount that is payable under the Plan as in effect before that date, such provision shall "apply only to amounts that would not otherwise be payable in 2008" within the meaning of paragraph .02 of §3 of Notice 2006-79 as modified by Section 3.01(B)(1) of Notice 2007-86, and shall be administered, interpreted and construed accordingly.

1. Purposes. The purposes of this Plan are (a) to provide competitive incentives that will enable the Company to attract, retain, motivate and reward persons who render services that benefit the Company or other enterprises in which the Company has a significant interest, and (b) to align the interests of such persons with the interests of the Company's shareholders generally.

2. Definitions. Unless otherwise required by the context, the following terms, when used in this Plan, shall have the meanings set forth in this Section 2.

(a) "Allied Enterprise" means a business enterprise, other than the Company or a Subsidiary, in which the Committee determines the Company has a significant interest, contingent or otherwise.

(b) "Appreciation-Only Award" means (i) Options and Stock Appreciation Rights the exercise price of which is equal to at least 100% of Fair Market Value on the date on which the Options or Stock Appreciation Rights are granted, and (ii) Linked Stock Appreciation Rights that are granted as an alternative to the related Option after the date of grant of such Option, the exercise price of which Stock Appreciation Rights is equal to at least 100% of Fair Market Value on the date on which such Option was granted.

(c) "Award" means an award granted under this Plan in one of the forms provided for in Section 3(a).

(d) "Beneficiary" means a person or entity (including but not limited to a trust or estate), designated in writing by a Service Provider or other rightful holder of an Award, on such forms and in accordance with such terms and conditions as the Committee may prescribe, to whom such Service Provider's or other rightful holder's rights under the Plan shall pass in the event of the death of such Service Provider or other rightful holder. In the event that the person or entity so designated is not living or in existence at the time of the death of the Service Provider or other rightful holder of the Award, or in the event that no such person or entity has been so designated, the "Beneficiary" shall mean the legal representative of the estate of the Service Provider or other rightful holder, or the person or entity to whom the Service Provider's or other rightful holder's rights with respect to the Award pass by will or the laws of descent and distribution.

(e) "Board" or "Board of Directors" means the Board of Directors of the Company, as constituted from time to time.

(f) "Change in Control" means that any of the following events has occurred:

(i) any Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates) representing 25% or more of the combined voting power of the Company's then outstanding securities, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (A) of paragraph (iii) below; or

(ii) the following individuals cease for any reason to constitute a majority of the number of directors serving on the Board: individuals who, at the beginning of any period of two consecutive years (not including any period prior to the Effective Date), constitute the Board and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board or nomination for election by the Company's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of such period or whose appointment, election or nomination for election was previously so approved or recommended; or

(iii) there is consummated a merger or consolidation of the Company or any Subsidiary with any other corporation, other than (A) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary, at least 60% of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation, or (B) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or

becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates) representing 25% or more of the combined voting power of the Company's then outstanding securities; or

(iv) the shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity, at least 60% of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

For purposes of the foregoing provisions of this Section 2(f),

(A) the term "Affiliate" shall have the meaning set forth in Rule 12b-2 promulgated under Section 12 of the Exchange Act;

(B) the term "Beneficial Owner" shall have the meaning set forth in Rule 13d-3 under the Exchange Act; and

(C) the term "Person" shall have the meaning given in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 14(d) thereof, except that such term shall not include (i) any member of the Barnes family (by blood or marriage) or any entity for the benefit of, or controlled by, a member of the Barnes family (by blood or marriage), (ii) the Company or any of its subsidiaries, (iii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (iv) an underwriter temporarily holding securities pursuant to an offering of such securities, or (v) a corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company.

(g) "Code" means the Internal Revenue Code of 1986, as amended and in effect from time to time. References to a particular section of the Code shall include references to any related Treasury Regulations and to successor provisions of the Code.

(h) "Committee" means the committee appointed by the Board of Directors to administer the Plan pursuant to the provisions of Section 12(a) below.

(i) "Common Stock" means common stock of the Company, par value $.01 per share.

(j) "Company" means Barnes Group Inc., a Delaware corporation, and, except for purposes of determining under Section 2(f) hereof whether or not a Change in Control has occurred, shall include its successors.

(k) "Dividend Equivalents" means a right granted subject to and in accordance with the

provisions of Section 5.III. and the other applicable provisions of the Plan (including, without limitation, Section 9).

(l) "Dollar-Denominated Awards" means Performance Unit Awards and any other Incentive Award the amount of which is based on a specified amount of money (other than an amount of money determined by reference to the Fair Market Value of a specified number of shares of Common Stock). Options and Stock Appreciation Rights are not Dollar-Denominated Awards.

(m) "Effective Date" means the first date (if any) on which the shareholders of the Company approve the Plan either (i) at a duly held stockholders' meeting, or (ii) by the written consent of the holders of a majority of the securities of the Company entitled to vote, in accordance with any applicable provisions of the Delaware General Corporation Law.

(n) "Employee" means any person who is employed by the Company or a Subsidiary on a full-time or part-time basis, including an officer or director if he is so employed.

(o) "Exchange Act" means the Securities Exchange Act of 1934, as amended from time to time.

(p) "Fair Market Value" on a particular date means as follows:

(i) If the principal market for the Common Stock is a national securities exchange or The NASDAQ Stock Market, the mean between

the highest and lowest sale prices per share of Common Stock in trading on such date as reported by Reuters or another source designated by the Committee; or

(ii) If the principal market for the Common Stock is not a national securities exchange or The NASDAQ Stock Market, the mean between the highest and lowest sale prices per share of Common Stock in trading on such date in the over-the-counter market, as reported by the NASDAQ OTC Bulletin Board, the National Quotation Bureau or such other system then providing quotations with regard to trades in the Common Stock or, if on such date the Common Stock is publicly traded but not quoted by any such system, the mean between the highest bid and lowest asked prices per share of Common Stock on such date as furnished by a professional market maker making a market in the Common Stock; or

(iii) If in (i) or (ii) above, as applicable, there were no sales on such date reported as provided above, the mean between the respective prices on the most recent prior day for which sales were so reported.

If the foregoing method of determining fair market value should be inconsistent with Section 422, Section 162(m)(4)(C) or any other provision of the Code, then, with respect to Awards (including in particular but not limited to Incentive Stock Options) and transactions that are intended by the Committee to satisfy Section 422, Section 162(m)(4)(C) or any other provision of the Code, "Fair Market Value" shall be determined by the Committee in a manner consistent with Section 422, Section 162(m)(4)(C) or such other provision of the Code and shall mean the value as so determined.

(q) "General Counsel" means the General Counsel of the Company serving from time to time.

(r) "Incentive Award" means an amount of money that is paid or a number of shares of Common Stock that are issued, or a right to be paid an amount of

money or to be issued a number of shares of Common Stock that is granted, subject to and in accordance with Section 5 and the other applicable provisions of the Plan (including, without limitation, Section 4 and Section 9). The term "Incentive Award" does not include Options or Stock Appreciation Rights.

(s) "Incentive Stock Option" means an option, including an Option as the context may require, intended to meet the requirements of Section 422 of the Code.

(t) "Linked Stock Appreciation Rights" means Stock Appreciation Rights that are linked to all or any part of an Option, subject to and in accordance with Section 8(a), 8(b) and the other applicable provisions of the Plan (including, without limitation, Section 9).

(u) "Non-Statutory Stock Option" means an option, including an Option as the context may require, which is not intended to be an Incentive Stock Option.

(v) "Option" means an option granted under this Plan to purchase shares of Common Stock. Options may be Incentive Stock Options or Non-Statutory Stock Options.

(w) "Performance-Based Compensation" means compensation that satisfies the requirements applicable to "performance-based compensation" under Code Section 162(m)(4)(C).

(x) "Performance Share Award" means a right granted subject to and in accordance with Section 5 and the other applicable provisions of the Plan (including, without limitation, Section 5.II., 5.II.(d), 6(e) and Section 9) to receive a specified number of shares of Common Stock, and/or an amount of money determined by reference to the Fair Market Value of a specified number of shares of Common Stock, at a future time or times if a specified performance goal is attained and any other terms and conditions set forth in the written instrument documenting the Performance Share Award are satisfied.

(y) "Performance Unit Award" means a right granted subject to and in accordance with Section 5 and the other applicable provisions of the Plan (including, without limitation, Section 5.II., 5.II.(d), 6(e) and Section 9) to receive a specified amount of money (other than an amount of money determined by reference to the Fair Market Value of a specified number of shares of Common Stock), or shares of Common Stock having a Fair Market Value equal to such specified amount of money, at a future time or times if a specified performance goal is attained and any other terms and conditions set forth in the written instrument documenting the Performance Unit Award are satisfied.

(z) "Plan" means the Barnes Group Inc. Stock and Incentive Award Plan set forth in these pages, as amended from time to time.

(aa) "Prior Plan" means the 1991 Barnes Group Stock Incentive Plan approved by stockholders of the Company at the 1991 Annual Meeting of Stockholders, as amended and in effect from time to time.

(bb) "Prior Program" means the Barnes Group Inc. Employee Stock and Ownership Program approved by stockholders of the Company at the 2000 Annual Meeting of Stockholders, as amended and in effect from time to time.

(cc) "Reloaded Option" means a Non-Statutory Stock Option that the Committee provides is to be granted pursuant to Section 7(g) below on the terms and subject to the conditions therein set forth.

(dd) "Restricted Stock Award" means shares of Common Stock which are issued to a Service Provider in accordance with Section 5.I. and the other applicable provisions of the Plan (including, without limitation, Section 9) subject to restrictions and/or forfeiture provisions specified by the Committee that will cease to apply at a future time or times if continued employment conditions and/or other terms and conditions set forth in the written instrument documenting the Restricted Stock Award are satisfied.

(ee) "Restricted Stock Unit Award" means shares of Common Stock that will be issued to a Service Provider at a future time or times subject to and in accordance with Section 5.I. below and the other applicable provisions of the Plan (including, without limitation, Section 9) if continued employment conditions and/or other terms and conditions set forth in the written instrument documenting the Restricted Stock Unit Award are satisfied.

(ff) "SEC Rule 16b-3" means Rule 16b-3 of the Securities and Exchange Commission promulgated under the Exchange Act, as such rule or any successor rule may be in effect from time to time.

(gg) "Section 16 Person" means a person subject to potential liability under Section 16(b) of the Exchange Act with respect to transactions involving equity securities of the Company.

(hh) "Service Provider" means a person who renders, has rendered or who the Committee expects to render services that benefit or will benefit the Company or a Subsidiary or an Allied Enterprise, in the capacity of employee, director, independent contractor, agent, advisor, consultant, representative or otherwise, and includes but is not limited to (i) Employees, (ii) personal service corporations, limited liability companies and similar entities through which any such person renders, has rendered or is expected to render such services, and (iii) members of the Board who are not Employees.

(ii) "Stock Appreciation Right" means a right granted subject to and in accordance with Section 8 and the other applicable provisions of the Plan (including, without limitation, Section 9).

(jj) "Subsidiary" means a corporation or other form of business association of which

shares (or other ownership interests) having more than 50% of the voting power are owned or controlled, directly or indirectly, by the Company; provided, however, that in the case of an Incentive Stock Option, the term "Subsidiary" shall mean a Subsidiary (as defined by the preceding clause) which is also a "subsidiary corporation" as defined in Section 424(f) of the Code.

3. **Grants of Awards**

(a) Subject to the provisions of the Plan, the Committee may at any time, and from time to time, grant the following types of awards to any Service Provider:

(i) Incentive Awards, which may but need not be in the form of Dividend Equivalents, Performance Share Awards, Performance Unit Awards, Restricted Stock Awards, or Restricted Stock Unit Awards;

(ii) Options; and

(iii) Stock Appreciation Rights.

Any provision above of this Section 3(a) to the contrary notwithstanding, the Committee may grant Incentive Stock Options only to Service Providers who are Employees.

(b) After an Award has been granted,

(i) the Committee may waive any term or condition thereof that could have been excluded from such Award when it was granted, and

(ii) with the written consent of the affected participant, may amend any Award after it has been granted to include (or exclude) any provision which could have been included in (or excluded from) such Award when it was granted unless this Plan indicates when such provision may be included in (or excluded from) such Award, in which case such Award may be amended to include (or exclude) such provision only when this Plan indicates such provision may be included in (or excluded from) such Award,

and no additional consideration need be received by the Company in exchange for such waiver or amendment; provided that, notwithstanding the foregoing, the Committee may not waive any term or condition pursuant to clause (i) above or include (or exclude) any provision pursuant to clause (ii) above if doing so would — (A) be inconsistent with any other provision of this Plan, or (B) cause an Option or Stock Appreciation Right that the Committee intends when it grants the Option or Stock Appreciation Right to qualify as an Option or Stock Appreciation Right that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) or 1.409A-1(b)(5)(i)(B), to

fail to qualify as such, or (C) constitute an acceleration or deferral of compensation that violates Section 409A of the Code, or would otherwise violate Section 409A of the Code, or (D) cause an Award that is intended to qualify for an exclusion from Section 409A of the Code to fail to so qualify, or (E) cause an Award which is intended to qualify as performance-based compensation within the meaning of Section 162(m) of the Code to fail to qualify as such.

(c) The Committee may (but need not) grant any Award linked to another Award, including, without limitation, Options linked to Stock Appreciation Rights, Dividend Equivalents linked to Options or Stock Appreciation Rights, and Dividend Equivalents linked to other Incentive Awards. Linked Awards may be granted as either alternatives or supplements to one another. The terms and conditions of any such linked Awards shall be determined by the Committee, subject to the provisions of the Plan.

(d) No Service Provider may exercise any rights in or to or with respect to any Award unless and until a written instrument (in paper or electronic form) approved by a duly authorized officer of the Company and setting forth the terms and conditions of the Award is delivered or made available to the Service Provider by the Company and is returned to the designated Company representative subscribed by the Service Provider within the time, if any, prescribed therefor by the Committee or its delegate. Any such instrument shall be consistent with this Plan and incorporate it by reference. The foregoing provisions of this Section 3(d) are intended to impose a condition governing the exercise of an Award, and not a condition on the granting of the Award (within the meaning of Treasury Regulation sections 1.409A-1(b)(5)(vi)(B)(2) & (3) and 1.421- 1(c)(2) & (3)). Subscribing such instrument and returning it to the Company, or accepting any benefits under the Award, shall constitute the Service Provider's irrevocable agreement to and acceptance of the terms and conditions of the Award set forth in such instrument and the terms and conditions of the Plan applicable to such Award.

(e) [LEFT BLANK INTENTIONALLY]

(f) The Committee may grant Awards that qualify as Performance-Based Compensation, as well as Awards that do not qualify as Performance-Based Compensation. Any provision of the Plan to the contrary notwithstanding, the Plan shall be interpreted, administered and construed to permit the Committee to grant Awards that qualify as Performance-Based Compensation as well as Awards that do not so qualify, and any provision of the Plan that cannot be so interpreted, administered or construed shall to that extent be disregarded.

(g) The Plan is intended to enable the Committee to grant Options that qualify for the tax treatment applicable to incentive stock options under Section 422 of the Code, as well as Options and other Awards that do not qualify for such tax treatment. Any provision of the Plan to the contrary notwithstanding, the Plan shall be interpreted, administered and construed to enable the Committee to grant Options that qualify for the tax treatment applicable to incentive stock options under Section 422 of the Code as well as Options and other Awards that do not qualify for such tax treatment, and any provision of the Plan that cannot be so interpreted, administered or construed shall to that extent be disregarded.

4. **Stock Subject to this Plan; Award Limits**

(a) Subject to the provisions below of Sections 4(c) and 4(d) and Section 10,

(i) the maximum aggregate number of shares of Common Stock which may be

issued pursuant to Awards is 950,000 shares of Common Stock, plus (A) the number of shares of Common Stock, if any, that remain available on the Effective Date for grants of awards under the Prior Plan, plus (B) the number of shares of Common Stock, if any, that remain available on the Effective Date for grants of awards under the Prior Program, plus (C) the number of shares of Common Stock that become available after the Effective Date for grants of awards under either the Prior Plan or the Prior Program pursuant to the terms of the Prior Plan or the Prior Program, less (D) the number of shares of Common Stock necessary to satisfy any awards that the Company is obligated to grant under either the Prior Plan or the Prior Program after the Effective Date pursuant to agreements in force prior to the Effective Date which are not amended to provide for the awards to be granted under the Plan. Not more than 50% of such maximum aggregate number of shares may be issued pursuant to Awards that are not Appreciation-Only Awards, and not more than 475,000 of such maximum aggregate number of shares may be issued pursuant to Options that are Incentive Stock Options; and

(ii) the maximum number of shares of Common Stock with respect to which Options or Stock Appreciation Rights may be granted during any calendar year to any Employee or other Service Provider is 500,000 shares of Common Stock; and

(iii) the maximum number of shares of Common Stock with respect to which any and all Awards other than Appreciation-Only Awards and Dollar-Denominated Awards may be granted in any one calendar year to any Employee or other Service Provider is 250,000 shares of Common Stock; and

(iv) no Employee or other Service Provider may receive more than seven million dollars (or the equivalent thereof in shares of Common Stock, based on Fair Market Value on the date as of which the number of shares is determined) in payment of Dollar-Denominated Awards that are granted to such Employee or other Service Provider in any one calendar year.

If, after any Award is earned or exercised, the issuance or transfer of shares of Common Stock or payment of money is deferred, any amounts equivalent to dividends or other earnings during the deferral period (including shares which may be distributed in payment of any such amounts) shall be disregarded in applying the per Employee or other Service Provider limitations set forth above in clauses (ii), (iii) and (iv) of this Section 4(a). If, in connection with an acquisition of another company or all or part of the assets of another company by the Company or a Subsidiary, or in connection with a merger or other combination of another company with the Company or a Subsidiary, the Company either
(A) assumes stock options or other stock incentive obligations of such other company, or (B) grants stock options or other stock incentives in substitution for stock options or other stock incentive obligations of such other company, then the stock options or other stock incentive obligations so assumed or granted in substitution by the Company shall not be granted (or be deemed granted) under the Plan and therefore none of the shares of Common Stock that are issuable or transferable pursuant to such stock options or other stock incentives that are assumed or granted in substitution by the Company shall be charged against the limitations set forth in this Section 4(a) above.

(b) Shares which may be issued pursuant to Awards may be authorized but unissued shares of Common Stock, shares of Common Stock held in the treasury, whether acquired by the Company specifically for use under this Plan or otherwise, or shares issued or transferred to, or otherwise acquired by, a trust or other legal entity pursuant to Section 13(d) below, as the Committee may from time to time determine, provided, however, that any shares acquired or held by the Company for the purposes of this Plan shall, unless and until issued or transferred to a trust or other legal entity pursuant to Section 13(d) below or to a Service Provider or other rightful holder of an Award in accordance with the terms and conditions of such Award, be and at all times remain treasury shares of the Company, irrespective of whether such shares are entered in a special account for purposes of this Plan, and shall be available for any corporate purpose.

(c) Subject to Section 4(e) below, the maximum aggregate number of shares set forth in Section 4(a)(i) above shall be charged only for the number of shares which are actually issued under the Plan; if any shares of Common Stock subject to an Award shall not be issued to a Service Provider and shall cease to be issuable to a Service Provider because of the termination, expiration, forfeiture or cancellation, in whole or in part, of such Award or the settlement of such Award in cash or for any other reason, or if any such shares shall, after issuance, be reacquired by the Company because of a Service Provider's failure to comply with the terms and conditions of an Award, the shares not so issued, or the shares so reacquired by the Company, as the case may be, shall no longer be charged against the limitations provided for in Section 4(a)(i) above and may again be made subject to Awards.

(d) Subject to Section 4(e) below, if the purchase price of shares subject to an Option is paid in shares of Common Stock in accordance with the provisions of clause (iv) of Section 7(b) below, or if shares of Common Stock that are issued or issuable pursuant to an Award are withheld by the Company in accordance with Section 13(f) below in full or partial satisfaction of withholding taxes due in respect of the Award or due in respect of the grant, exercise, vesting, distribution or payment of the Award, the number of shares surrendered to the Company in payment of the purchase price of the shares subject to the Option, or the number of shares that are withheld by the Company in payment of such withholding taxes, shall be added back to the maximum aggregate number of shares which may be issued pursuant to Awards under Section 4(a)(i) above, so that the maximum aggregate number of shares which may be issued pursuant to Awards under Section 4(a)(i) above shall have been charged only for the net number of shares that were issued by the Company pursuant to the Option exercise or the Award.

(e) If and to the extent that the General Counsel determines that Section 4(c) or Section 4(d) above or Section 8(f) below shall cause the Company or the Plan to fail to satisfy the rules or listing standards of the New York Stock Exchange as in effect from time to time, or shall prevent Incentive Stock Options granted under the Plan from qualifying as Incentive Stock Options under Code Section 422, then to that extent (and only to that extent) Section 4(c), Section 4(d) or Section 8(f) shall be disregarded. For example, if the General Counsel determines that one or more of the aforementioned Sections of the Plan will prevent Incentive Stock Options granted under the Plan from qualifying as Incentive Stock Options under Code Section 422 if such Sections of the Plan are applied in determining the number of shares of Common Stock that are available from time to time

to be issued pursuant to Options that are Incentive Stock Options, and determines that such Sections of the Plan will not prevent Incentive Stock Options granted

under the Plan from qualifying as Incentive Stock Options under Code Section 422 if such Sections of the Plan are applied in determining the number of shares of Common Stock that are available from time to time to be issued pursuant to Options that are Non-Statutory Stock Options or other Awards that are not Incentive Stock Options, then such Sections of the Plan shall be disregarded for purposes of determining the number of shares of Common Stock that are available from time to time to be issued pursuant to Options that are Incentive Stock Options, but not for purposes of determining the number of shares of Common Stock that are available from time to time to be issued pursuant to Options that are Non-Statutory Stock Options or other Awards that are not Incentive Stock Options.

5. **Incentive Awards**

I. Generally . Except as otherwise provided in Section 13(e), Incentive Awards shall be subject to the following provisions:

(a) Incentive Awards may be granted in lieu of, or as a supplement to, any other compensation that may have been earned by the Service Provider prior to the date on which the Incentive Award is granted. The amount of an Incentive Award may be based upon (i) a

specified number of shares of Common Stock or the Fair Market Value of a specified number of shares of Common Stock, or (ii) an amount of money not determined by reference to the Fair Market Value of a specified number of shares of Common Stock. Any Incentive Award may be paid in the form of money or shares of Common Stock valued at their Fair Market Value on the payment date, or a combination of money and such shares, as the Committee may provide. Dividend Equivalents, Performance Share Awards, Performance Unit Awards, Restricted Stock Awards and Restricted Stock Unit Awards are specific forms of Incentive Awards, but are not the only forms in which Incentive Awards may be made.

(b) Any shares of Common Stock that are to be issued pursuant to an Incentive Award, and any money to be paid in respect of an Incentive Award, may be issued or paid to the Service Provider at the time such Award is granted, or at any time subsequent thereto, or in installments from time to time, as the Committee shall determine when it grants the Award or at such other time as complies with
Section 409A of the Code (if applicable). In the event that any such issuance or payment shall not be made to the Service Provider at the time an Incentive Award is granted, the Committee may but need not grant Dividend Equivalents in respect of the Award, or may provide that, until such shares are issued or money is paid in respect of the Award or until the Award is forfeited, and subject to such terms and conditions as the Committee may impose, the Award shall earn amounts equivalent to interest or another investment return specified by the Committee, which amounts may be paid as earned or deferred and reinvested, and which amounts may be paid either in money or shares of Common Stock, all as the Committee may provide when it grants the Award or at such other time as complies with Section 409A of the Code (if applicable).

(c) Incentive Awards shall be subject to such terms and conditions, including, without limitation, restrictions on the sale or other disposition of the shares issued or transferred pursuant to such Award, and conditions calling for forfeiture of the Award or the shares issued

pursuant thereto in designated circumstances, as the Committee may determine when it grants the Award or at such other time as complies with Section 409A of the Code (if applicable); provided, however, that upon the issuance of shares pursuant to any such Award, the recipient shall, with respect to such shares, be and become a shareholder of the Company fully entitled to receive dividends, to vote and to exercise all other rights of a shareholder except to the extent otherwise provided in the Award. In the case of a Restricted Stock Award, the recipient shall pay the par value of the shares to be issued pursuant to the Award unless such payment is not required by applicable law.

II.**Performance Share Awards and Performance Unit Awards**

(a) Subject to the terms and conditions of the Plan, the Committee may grant any Service Provider a Performance Share Award and/or a Performance Unit Award. The Committee may but need not provide that a specified portion of the Performance Share Award or Performance Unit Award will be earned if the specified performance goal applicable to the Award is partially attained.

(b) Subject to Section 6(b) below, the specified performance goal applicable to a Performance Share Award or Performance Unit Award may but need not consist, without limitation, of any one or more of the following: completion of a specified period of employment with or other service that benefits the Company or a Subsidiary or an Allied Enterprise, achievement of financial or operational goals, and/or the occurrence of a specified circumstance or event. The performance goal applicable to Performance Share Awards and Performance Unit Awards, and the other terms and conditions of such awards, need not be the same for each award or each Service Provider to whom an award is granted. A Service Provider may (but need not) be granted Performance Share Awards and Performance Unit Awards each year, and the performance period applicable to any such Award may overlap with one or more years included in the performance period applicable to any earlier- or later-granted Award. Subject to Section 6(d) below, the Committee may retain discretion to adjust the determinations of the degree of attainment of the performance objectives applicable to Performance Share Awards and Performance Unit Awards.

(c) Subject to Section 6(e) below, when it grants the Award or at such other time as complies with Section 409A of the Code (if applicable) the Committee may but need not provide that, if the Service Provider’s death or disability or another circumstance or event specified by the Committee occurs before the performance goal applicable to a Performance Share Award or Performance Unit Award is attained, and irrespective of whether the performance goal is thereafter attained, the Performance Share Award or Performance Unit Award will be earned in whole or in part (as the Committee may specify).

(d) The Committee may but need not provide for a Service Provider’s Performance Share Award or Performance Unit Award to be forfeited in whole or in part if such Participant’s employment by or other service that benefits the Company, a Subsidiary or an Allied Enterprise terminates for any reason before shares are issued or money is paid (as applicable) in full settlement of such Performance Share Award or Performance Unit Award.

(e) Except as otherwise provided in the instrument evidencing a Performance Share Award or Performance Unit Award, Performance Share Awards and Performance Unit Awards may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution or to a Beneficiary.

III. Dividend Equivalents. The Committee may grant any Service Provider the right to be paid, subject to such terms and conditions as the Committee

may specify when it grants the right or at such other time as complies with Section 409A of the Code (if applicable), an amount of

money equal to the dividends paid from time to time on a specified number of shares of Common Stock (which may but need not be based on the number of shares that are subject to another Award, including without limitation an Option or Stock Appreciation Rights, and whether or not such other Award is vested or exercisable). When it grants the right or at such other time as complies with Section 409A of the Code (if applicable), the Committee may provide for such amount of money to be paid on each date on which such dividends are paid or at a subsequent future time or times. If it is not paid on each such date, then, if so provided by the Committee when it grants the right or at such other time as complies with Section 409A of the Code (if applicable), and subject to such terms and conditions as the Committee may impose, until such money is paid or forfeited, it shall be credited to the Service Provider on the books of the Company and may earn amounts equivalent to interest or another investment return specified by the Committee, or may earn amounts equivalent to the dividends that would be paid on a number of shares of Common Stock having a Fair Market Value on its dividend payment date equal to such amount. Any such equivalent amounts may be paid as earned or may be deferred and reinvested until a future date or dates, as the Committee may specify when it grants the right or at such other time as complies with Section 409A of the Code (if applicable), provided that any dividends deemed reinvested in shares of Common Stock shall be deemed reinvested at Fair Market Value on the applicable dividend payment date. Dividend Equivalents may be paid in the form of money or shares of Common Stock based on their Fair Market Value on the payment date, or in a combination of money and such shares, as the Committee may provide. Any shares of Common Stock issued in payment of Dividend Equivalents shall be charged against the maximum aggregate number of shares which may be issued pursuant to Awards under Section 4(a)(i) above.

6. **Performance Measures and Other Provisions Applicable to Performance-Based Compensation Awards**

(a) Awards that the Committee intends to qualify as Performance-Based Compensation shall be granted and administered in a manner that will enable such Awards to qualify as Performance-Based Compensation.

(b) The performance goal applicable to any Award (other than an Appreciation-Only Award) that the Committee intends to qualify as Performance-Based Compensation shall be based on targeted levels of, targeted levels of return on, or targeted levels of growth for, any one or more of the following performance measures on a consolidated Company, consolidated Group, business unit or divisional level, as the Committee may specify: earnings per share, net income, operating income, performance profit (operating income minus an allocated charge approximating the Company's cost of capital, before or after tax), gross margin, revenue, working capital, total assets, net assets,

stockholders' equity, or cash flow. When it grants the Award or at such other time as complies with Section 162(m) and, if applicable, Section 409A of the Code, the Committee shall select the performance measure or measures on which the performance goal applicable to any such Award shall be based and shall establish the levels of performance at which such Award is to be earned in whole or in part. Any such performance measure or combination of such performance measures may apply to the Service Provider's Award in its entirety or to any designated portion or portions of the Award, as the Committee may specify. The foregoing performance measures shall be determined in accordance with generally accepted accounting principles ("GAAPs") to the extent that GAAPs define such performance measures, and otherwise shall be determined in accordance with any customary and reasonable definition the Committee approves. However, notwithstanding the preceding sentence, unless the Committee determines otherwise prior to payment of an Award to which this Section 6(b) applies, and subject to any exercise of "negative discretion" by the Committee, extraordinary, unusual or non-recurring items; discontinued operations; effects of accounting changes; effects of currency fluctuations; effects of financing activities (by way of example, without limitation, effect on earnings per share of issuing convertible debt securities); expenses for restructuring or productivity initiatives; non-operating items; effects of acquisitions and acquisition expenses; and effects of divestitures and divestiture expenses, any of which affect any performance goal applicable to such Award (including, without limitation, earnings per share) shall be automatically excluded or included in determining the extent to which the performance goal has been achieved, whichever will produce the higher Award.

(c) Any provision of the Plan to the contrary notwithstanding, but subject to Section 6(e), Section 9 and Section 10 below, Awards to which Section 6(b) above applies shall (i) "be paid solely on account of the attainment of one or more preestablished, objective performance goals" (within the meaning of Treasury Regulation 1.162-27(e)(2) or its successor) over a period of one year or longer, which performance goals shall be based upon one or more of the performance measures set forth in Section 6(b) above, and (ii) be subject to such other terms and conditions as the Committee may impose when it grants the Award or at such other time as complies with Section 162(m) and, if applicable, Section 409A of the Code.

(d) The terms of the performance goal applicable to any Award to which Section 6(b) above applies shall preclude discretion to increase the amount of compensation that would otherwise be due upon attainment of the goal.

(e) An Award to which Section 6(b) above applies may be earned in whole or in part if the Service Provider's death or disability or a Change in Control or another circumstance or event specified by the Committee occurs before the performance goal applicable to the Award is attained, and irrespective of whether the performance goal applicable to the Award is thereafter attained, but only if and to the extent that (i) the Committee so provides with respect to such Award when it grants the Award or at such other time as complies with Section 162(m) and, if applicable, Section 409A of the Code, and (ii) the Award will nevertheless qualify as Performance-Based Compensation if the performance goal applicable to such Award is attained and the Service Provider's death or disability, a Change in Control or any such other circumstance or event specified by the Committee does not occur.

7. Options. Except as otherwise provided in Section 13(e), Options shall be subject to the following provisions and such other terms and conditions, consistent with the following provisions, as the Committee may provide in the instrument evidencing the Options:

(a) Subject to the provisions of Section 10, the purchase price per share shall be, in the case of an Incentive Stock Option, not less than 100% of the Fair

Market Value of a share of Common Stock on the date the Incentive Stock Option is granted (or in the case of any optionee who, at the time such Incentive Stock Option is granted, owns stock possessing more than 10 percent of the total combined voting power of all classes of stock of his employer corporation or of its parent or subsidiary corporation, not less than 110% of the Fair Market Value of a share of Common Stock on the date the Incentive Stock Option is granted) and, in the case of a Non-Statutory Stock Option, not less than the par value of a share of Common Stock on the date the Non-Statutory Stock Option is granted. Subject to the foregoing limitations, the purchase price per share may, if the Committee so provides at the time of grant of an Option, be indexed to the increase or decrease in an index specified by the Committee. Notwithstanding any provision of the Plan to the contrary, in the case of any Option that the Committee intends when it grants the Option to be an option that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A), the exercise price shall never be less than 100% of the Fair Market Value of the underlying stock (disregarding lapse restrictions as defined in Treasury Regulation section 1.83-3(i)) on the date the Option is granted within the meaning of Treasury Regulation section 1.409A-1(b)(vi)(B), and the number of shares subject to the Option shall be fixed on the original date of grant of the Option.

(b) The purchase price of shares subject to an Option may be paid in whole or in part (i) in money, (ii) by bank-certified, cashier's or personal check subject to collection, (iii) if so provided in the Option and subject to Section 402 of the Sarbanes-Oxley Act of 2002 as amended from time to time and subject to such terms and conditions as the Committee may impose, by delivering to the Company a properly executed exercise notice together with a copy of irrevocable instructions to a stockbroker to sell immediately some or all of the shares acquired by exercise of the option and to deliver promptly to the Company an amount of sale proceeds (or, in lieu of or pending a sale, loan proceeds) sufficient to pay the purchase price, (iv) if so provided in the Option and subject to such terms and conditions as may be specified in the Option, in shares of Common Stock which have been owned by the optionee for at least six months or which were acquired on the open market and which are surrendered to the Company actually or by attestation, or (v) if so provided in the Option and subject to such terms and conditions as may be specified in the Option, by electing to have the Company retain some of the shares of Common Stock that would otherwise be issued pursuant to the Option exercise. Any shares of Common Stock thus surrendered to or retained by the Company shall be valued at their Fair Market Value on the date of exercise. If so provided in the Option and subject to such terms and conditions as are specified in the Option, in lieu of the foregoing methods of payment, any portion of the purchase price of the shares to be issued may be paid by a promissory note secured by a pledge of the purchased shares in such form and containing such provisions (which may but need not provide for interest and for payment of the note at the election of the Service Provider in money or in shares of Common Stock or other property surrendered to the Company) as the Committee may approve; provided that (A) payment by promissory note may be made only if and to the extent that the General Counsel determines that it is permissible under the Delaware

General Corporation Law and Section 402 of the Sarbanes-Oxley Act of 2002 as amended from time to time, and (B) if the Committee permits any such note to be paid by surrender of shares of Common Stock, such shares shall be valued at their Fair Market Value on the date of such surrender, and (C) if the Committee permits any such note to be paid by surrender of other property, such other property shall be valued at its fair market value on any reasonable basis established or approved by the Committee, and (D) in the case of an Incentive Stock Option and any Option that the Committee intends when it grants the Option to be an option that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A), any such note shall bear interest at the minimum rate required to avoid imputation of interest under federal income tax laws applicable at the time of exercise and (E) any such note shall mature in ten years or such lesser period as may be specified by the Committee.

(c) Options may be granted for such lawful consideration, including but not limited to money or other property, tangible or intangible, or labor or services received or to be received by the Company, as the Committee may determine when the Option is granted. Property for purposes of the preceding sentence shall include an obligation of the Company unless prohibited by applicable law. Subject to the foregoing and the other provisions of this Section 7, each Option may be exercisable in full at the time of grant or may become exercisable in one or more installments and at such time or times and subject to such terms and conditions, as the Committee may determine when it grants the Option or at such other time as may be permissible under Section 409A of the Code (if applicable). Without limiting the foregoing, an Option may (but need not) provide by its terms that it will become exercisable in whole or in part upon the completion of specified periods of service or earlier achievement of one or more performance objectives specified therein, or that it will become exercisable only if one or more performance goals specified therein are achieved. The Committee may at any time accelerate the date on which an Option that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) becomes exercisable, and no additional consideration need be received by the Company in exchange for such acceleration. Unless otherwise provided in the instrument evidencing the Option, an Option, to the extent it becomes exercisable, may be exercised at any time in whole or in part until the expiration or termination of the Option.

(d) Subject to Section 13(a) below, each Option shall be exercisable during the life of the optionee only by him or his guardian or legal

representative, and after death only by his Beneficiary. Notwithstanding any other provision of this Plan, (i) no Option shall be exercisable after the tenth anniversary of the date on which the Option was granted, and (ii) no Incentive Stock Option which is granted to any optionee who, at the time such Option is granted, owns stock possessing more than 10 percent of the total combined voting power of all classes of stock of his employer corporation or of its parent or subsidiary corporation, shall be exercisable after the expiration of five (5) years from the date such Option is granted. If an Option is granted for a term of less than ten years, the Committee may, at any time prior to the expiration of the Option, extend its term for a period ending not later than on the tenth anniversary of the date on which the Option was granted, and no additional consideration need be received by the Company in exchange for such extension; provided that the Committee may not extend the term of an Option pursuant to this sentence if doing so would constitute an "extension" of the Option within the meaning of Treasury Regulation section 1.409A-1(b)(5)(v)(C). Subject to the foregoing provisions of this Section 7(d) and any applicable provisions of Section 409A of the Code, the Committee may but need not provide for an Option to be exercisable after termination of the Service Provider's employment or other service for any period and subject to any terms and conditions that the Committee may determine.

(e) An Option may, but need not, be an Incentive Stock Option; provided that the aggregate Fair Market Value (determined as of the time the option is granted) of the stock with respect to which Incentive Stock Options may be exercisable for the first time by any Employee during any calendar year (under all plans, including this Plan, of his employer corporation and its parent and subsidiary corporations) shall not exceed

$100,000 unless the Code is amended to allow a higher dollar amount.

(f) Shares purchased pursuant to the exercise of an Option shall be issued to the person exercising the Option when the Option is properly exercised. No person exercising an Option shall acquire any rights of a shareholder unless and until the shares purchased pursuant to the exercise of the Option are issued to him. If so provided in the instrument evidencing the Option, the shares issued pursuant to the exercise of the Option may be non-transferable and forfeitable to the Company in designated circumstances and for specified periods of time.

(g) The Committee may (but need not) provide, at the time of grant of an Incentive Stock Option or a Non-Statutory Stock Option (the "First Generation Option"), that the Service Provider to whom such First Generation Option is granted shall be granted a Non-Statutory Stock Option (a "Reloaded Option") if and when (i) such Service Provider exercises all or part of the First Generation Option or a Reloaded Option granted after and descended from the First Generation Option (such First Generation Option or Reloaded Option being hereafter referred to as an "Original Option") by surrendering shares of Common Stock already owned by him in full or partial payment of the option price under such Original Option and/or (ii) shares of Common Stock are withheld to satisfy tax obligations incident to the exercise of such Original Option. All Reloaded Options are subject to the availability of shares of Common Stock under the Plan at the time of such exercise. A Reloaded Option shall cover a number of shares of Common Stock not greater than the number of shares of Common Stock surrendered in payment of the option price under such Original Option and/or used to satisfy any tax obligation incident to the exercise of such Original Option. Each Reloaded Option shall have an option price equal to the Fair Market Value of the Common Stock on the date of grant of the Reloaded Option and shall expire on the stated expiration date of the Original Option. The date of grant of a Reloaded Option shall be the date on which the exercise of the Original Option results in the grant of such Reloaded Option. A Reloaded Option shall be exercisable at any time and from time to time from or after the date of grant of the Reloaded Option (or as the Committee in its sole discretion shall otherwise specify in the written instrument evidencing the Reloaded Option). The written instrument evidencing the Original Option or the Reloaded Option may contain such other terms and conditions as the Committee may in its discretion impose, which, without limitation, may (but need not) (A) make the grant or exercise of Reloaded Options contingent on the achievement of specified levels of stock appreciation on the Original Option or otherwise, (B) limit the number of Reloaded Options that may be granted or the intervals at which Reloaded Options may be granted, and (C) include a restriction on the transferability of the Common Stock received upon the exercise of the Original Option or any Reloaded Option.

(h) The Committee shall not have the authority to reduce the purchase price of shares under outstanding Options, except as permitted by Section 10 below (relating to adjustments for changes in capitalization and similar adjustments). If the Committee grants an Option under which the purchase price of the optioned shares is indexed to the increase or decrease in a specified index, as permitted by Section 7(a) above, a reduction in the purchase price resulting from a decrease in the index shall not be deemed to violate the first sentence of this Section 7(h).

(i) No Employee shall make any elective contribution or employee contribution to the Plan (within the meaning of Treasury Regulation Section 1.401(k)-1(d)(2)(iv)(B)(4) or a successor thereto) during the six months after the Employee's receipt of a hardship distribution from a plan of the Company or a related party within the provisions of Code Sections 414(b), (c), (m) or (o) containing a cash or deferred arrangement under Section 401(k) of the Code. The preceding sentence shall not apply if and to the extent that the General Counsel determines it is not necessary to qualify any such plan as a cash or deferred arrangement under Section 401(k) of the Code.

(j) No option shall be exercisable unless and until the Company (i) obtains the approval of all regulatory bodies whose approval the General Counsel may deem necessary or desirable, and (ii) complies with all legal requirements deemed applicable by the General Counsel.

(k) An Option shall be considered exercised if and when written notice, signed by the person exercising the Option and stating the number of shares with respect to which the Option is being exercised, is received by the designated representative of the Company on a properly completed

form approved for this purpose by the Committee, accompanied by full payment of the Option exercise price in one or more of the forms authorized in the instrument evidencing such Option and described in Section 7(b) above for the number of shares to be purchased. No Option may at any time be exercised with respect to a fractional share unless the instrument evidencing such Option expressly provides otherwise.

8. Stock Appreciation Rights. Stock Appreciation Rights shall be subject to such terms and conditions, not inconsistent with the Plan, as shall from time to time be determined by the Committee and to the following terms and conditions:

(a) Stock Appreciation Rights that are granted under the Plan may be linked to all or any part of an Option ("Linked Stock Appreciation Rights"), or may be granted without any linkage to an Option ("Free-Standing Stock Appreciation Rights"). Linked Stock Appreciation Rights may be granted on the date of grant of the related Option or on any date thereafter, as the Committee may determine. The exercise price of Stock Appreciation Rights, the number of Stock Appreciation Rights granted, and, in the case of Linked Stock Appreciation Rights, whether the Stock Appreciation Rights are being granted as an alternative or a supplement to the Option to which they are linked, shall be determined on the date of grant of the Stock Appreciation Rights (within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B).

(b) Linked Stock Appreciation Rights may be granted either as an alternative or a supplement to the Option to which they are linked (the "related" Option), provided that Linked Stock

Appreciation Rights may not be granted as a supplement to an Option that the Committee intends when it grants the Option to be an option that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A). Linked Stock Appreciation Rights that are granted as an alternative to the related Option may only be exercised when the related Option is exercisable, and at no time may a number of such Linked Stock Appreciation Rights be exercised that exceeds the number of shares with respect to which the related Option is then exercisable. Upon exercise of Linked Stock Appreciation Rights that are granted as an alternative to an Option, the holder shall be entitled to receive the amount determined pursuant to Section 8(e) below. Exercise of

each such Linked Stock Appreciation Right shall cancel the related Option with respect to one share of Common Stock purchaseable under the Option. Linked Stock Appreciation Rights that are granted as a supplement to the related Option shall entitle the holder to receive the amount determined pursuant to Section 8(e) below if and when the holder purchases shares under the related Option or at any subsequent time specified in the instrument evidencing such Stock Appreciation Rights.

(c) Stock Appreciation Rights may be granted for such lawful consideration, including but not limited to money or other property, tangible or intangible, or labor or services received or to be received by the Company, as the Committee may determine when the Stock Appreciation Rights are granted. Property for purposes of the preceding sentence shall include an obligation of the Company unless prohibited by applicable law. Subject to the foregoing and the other provisions of this Section 8, Stock Appreciation Rights may be exercisable in full at the time of grant or may become exercisable in one or more installments and at such time or times and subject to such terms and conditions, as the Committee may determine when it grants the Stock Appreciation Rights or at such other time as may be permissible under Section 409A of the Code (if applicable). Without limiting the foregoing, Stock Appreciation Rights may (but need not) provide by their terms that they will become exercisable in whole or in part upon the completion of specified periods of service or earlier achievement of one or more specified performance objectives, or that they will become exercisable only if one or more specified performance goals are achieved. The Committee may at any time accelerate the date on which Stock Appreciation Rights that 'do not provide for a deferral of compensation' within the meaning of Treasury Regulation section 1.409A- 1(b)(5)(i)(B) become exercisable, and no additional consideration need be received by the Company in exchange for such acceleration. Unless otherwise provided in the Plan or the instrument evidencing the Stock Appreciation Rights, Stock Appreciation Rights, to the extent they become exercisable, may be exercised at any time in whole or in part until they expire or terminate.

(d) No Free-Standing Stock Appreciation Rights or Linked Stock Appreciation Rights that are granted as a supplement to the related Option shall be exercisable after the tenth anniversary of the date on which the Stock Appreciation Rights were granted, and no Linked Stock Appreciation Rights that are granted as an alternative to the related Option shall be exercisable after the related Option ceases to be exercisable. If the Committee grants Stock Appreciation Rights for a lesser term than that permitted by the preceding sentence, the Committee may, at any time prior to expiration of the Stock Appreciation Rights, extend their term to the maximum term permitted by the preceding sentence, and no additional consideration need be received by the Company in exchange for such extension; provided that the Committee may not extend the term of Stock Appreciation Rights pursuant to this sentence if doing so would constitute an "extension" of the Stock Appreciation

Rights within the meaning of Treasury Regulation section 1.409A-1(b)(5)(v)(C). Subject to the foregoing provisions of this Section 8(d) and any applicable provisions of Section 409A of the Code, the Committee may but need not provide for Stock Appreciation Rights to be exercisable after termination of the Service Provider's employment or other service for any period and subject to any terms and conditions that the Committee may determine.

(e) Upon exercise of Stock Appreciation Rights, the holder thereof shall be entitled to receive an amount of money, or a number shares of Common Stock that have a Fair Market Value on the date of exercise of such Stock Appreciation Rights, or a combination of money and shares valued at Fair Market Value on such date, as the Committee may determine, equal to the amount by which the Fair Market Value of a share of

Common Stock on the date of such exercise exceeds the Exercise Price (as hereafter defined) of the Stock Appreciation Rights, multiplied by the number of Stock Appreciation Rights exercised; provided that in no event shall a fractional share be issued unless the instrument evidencing such Stock Appreciation Rights expressly provides otherwise. In the case of Linked Stock Appreciation Rights that are granted as an alternative to the related Option, the Exercise Price shall be the price at which shares may be purchased under the related Option; provided that, in the case of any such Stock Appreciation Rights that the Committee intends when it grants the Stock Appreciation Rights to be stock appreciation rights that 'do not provide for a deferral of compensation' within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B), the Exercise Price shall never be less than the fair market value of the underlying stock (disregarding lapse restrictions as defined in Treasury Regulation section 1.83-3(i)) on the date the rights are granted, within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B)(2). In the case of Linked Stock Appreciation Rights that are granted as a supplement to the related Option, and in the case of Free-Standing Stock Appreciation Rights, the Exercise Price shall be the Fair Market Value of a share of Common Stock on the date the Stock Appreciation Rights are granted, unless the Committee specifies a different price when the Stock Appreciation Rights are granted (which shall not be less than the par value of the Common Stock and which may be indexed to the increase or decrease in an index specified by the Committee); provided that, in the case of any such Stock Appreciation Rights that the Committee intends when it grants the Stock Appreciation Rights to be stock appreciation rights that 'do not provide for a deferral of compensation' within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B), the Exercise Price shall never be less than the fair market value of the underlying stock (disregarding lapse restrictions as defined in Treasury Regulation section 1.83-3(i)) on the date the rights are granted, within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B)(2). When the Committee grants Stock Appreciation Rights other than Stock Appreciation Rights that the Committee intends to be stock appreciation rights that 'do not provide for a deferral of compensation' within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B), the Committee may provide that, notwithstanding the foregoing, upon exercise of the Stock Appreciation Rights at any time during a period commencing on the third business day following the date of release for publication of any annual or quarterly summary statements of the Company's sales and earnings and ending on the twelfth business day following such date (a "Window Period"), or during the thirty-day period following a Change in Control (a "Change in Control Period"), including, without limitation, upon exercise of Stock Appreciation Rights which expire before the end of the Window Period or Change in Control Period in which they are exercised ("Expiring Stock Appreciation Rights"), the amount of money or shares which a Section 16 Person shall be entitled to receive in settlement of such exercise shall equal the amount by which the highest

Fair Market Value of Common Stock during such Window Period or such Change in Control Period (or, in the case of Expiring Stock Appreciation Rights, the highest Fair Market Value of Common Stock during the portion of such Window Period or Change in Control Period that precedes the expiration of such Stock Appreciation Rights) exceeds the Exercise Price of the Stock Appreciation Rights multiplied by the number of Stock Appreciation Rights exercised but, in the case of Stock Appreciation Rights that relate to an Incentive Stock Option, not in excess of the maximum amount that may be paid under Code Section 422 without disqualifying such Option as an incentive stock option as defined in that Code section. For the avoidance of doubt, the preceding sentence shall not apply

to Stock Appreciation Rights that the Committee intends when it grants the Stock Appreciation Rights to be stock appreciation rights that 'do not provide for a deferral of compensation' within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B).

(f) Subject to Section 4(e) above, (i) the limitations set forth in Section 4(a)(i) above shall be charged only for the number of shares which are actually issued in settlement of Stock Appreciation Rights; and (ii) in the case of an exercise of Linked Stock Appreciation Rights that were granted as an alternative to the related Option, if the number of shares of Common Stock previously charged against such limitations on account of the portion of the Option that is cancelled in connection with such exercise in accordance with Section 8(b) exceeds the number of shares (if any) actually issued pursuant to such exercise, the excess may be added back to the maximum aggregate number of shares available for issuance under the Plan.

(g) Subject to Section 13(a) below, Stock Appreciation Rights shall be exercisable during the life of the Service Provider only by him or his guardian or legal representative, and after death only by his Beneficiary.

(h) The Committee shall not have the authority to reduce the exercise price of outstanding Stock Appreciation Rights, except as permitted by Section 10 below (relating to adjustments for changes in capitalization and similar adjustments). If the Committee grants Stock Appreciation Rights the exercise price of which is indexed to the increase or decrease in a specified index, as permitted by Section 8(e) above, a reduction in the exercise price resulting from a decrease in the index shall not be deemed to violate the first sentence of this Section 8(h).

9. **Certain Change in Control, Termination of Service, Death and Disability Provisions.**

(a) Notwithstanding any provision of the Plan to the contrary, unless the instrument evidencing an Award provides otherwise, (i) any Award which is outstanding but not yet fully exercisable, vested, earned or payable at the time of a Change in Control shall become fully exercisable, vested, earned and payable at that time; provided that (A) in lieu of becoming exercisable or payable at the time of a Change in Control in accordance with the preceding provisions of this clause (i), any such Award that constitutes deferred compensation that is subject to Section 409A of the Code shall become exercisable or payable when a "change in control event" occurs with respect to the participant (within the meaning of Treasury Regulation section 1.409A-3(i)(5)(i) & (ii)) on or after the date on which a Change in Control occurs, and (B) if such Change in Control occurs less than six months after the date on which such Award was granted and if the consideration for which such Award was granted consisted in whole or in part of future services,

then (I) if such Award does not constitute deferred compensation that is subject to Section 409A of the Code, such Award shall become fully exercisable, vested, earned and payable at the time of such Change in Control only if the participant agrees in writing (if requested to do so by the Committee in writing before such Change in Control) to remain in the employment or other applicable service that benefits the Company or a Subsidiary or an Allied Enterprise, at least through the date which is six months after the date such Award was granted, with substantially the same title, duties, authority, reporting relationships, compensation and indemnification as on the day immediately preceding the Change in Control, and
(II) if such Award constitutes deferred compensation that is subject to Section 409A of the Code, such Award shall become vested and earned at the time of such Change in Control only if the participant agrees in writing (if requested to do so by the Committee in writing before such Change in Control) to remain in the employment or other applicable service that benefits the Company or a Subsidiary or an Allied Enterprise, at least through the date which is six months after the date such Award was granted, with substantially the same title, duties, authority, reporting relationships, compensation and indemnification as on the day immediately preceding the Change in Control; and (ii) any Option or Stock Appreciation Right that does not provide for a deferral of compensation within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) or
(B) and which is outstanding at the time of a Change in Control shall remain exercisable for the full balance of its 10 year (or lesser) term, irrespective of any provision that would otherwise cause such Option or Stock Appreciation Right to terminate sooner.

(b) Subject to Section 9(a) above, the Committee may at any time, and subject to such terms and conditions as it may impose:

(i) authorize the holder of an Option or Stock Appreciation Rights to exercise the Option or Stock Appreciation Rights following the termination of the participant's employment or other applicable service that benefits the Company or a Subsidiary or an Allied Enterprise, or following the participant's death or disability, whether or not the Option or Stock Appreciation Rights would otherwise be exercisable following such event, provided that in no event may an Option or Stock Appreciation Rights be exercised after the expiration of their term;

(ii) grant Options and Stock Appreciation Rights which become exercisable only in the event of a Change in Control;

(iii) provide for Stock Appreciation Rights to be exercised automatically and only for money in the event of a Change in Control;

(iv) authorize any Award to become non-forfeitable, fully earned and payable following (A) the termination of the Service Provider's employment with or other applicable service that benefits the Company or a Subsidiary or an Allied Enterprise, or (B) the Service Provider's death or disability, whether or not the Award would otherwise become non-forfeitable, fully earned and payable following such event;

(v) grant Awards which become non-forfeitable, fully earned and payable only in the event of a Change in Control; and

(vi) provide in advance or at the time of a Change in Control for money to be paid in settlement of any Award in the event of a Change in Control, either at the election of the participant or at the election of the Committee;

provided that the authority conferred upon the Committee by the foregoing provisions of this Section 9(b) may not be exercised (A) with respect to an Option or Stock Appreciation Right that the Committee intends when the Option or Stock Appreciation Right is granted to qualify as an Option or Stock Appreciation Right that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A- 1(b)(5)(i)(A) or 1.409A-1(b)(5)(i)(B), if and to the extent that such exercise of authority would cause the Option or Stock Appreciation Right to fail to qualify as such, or (B) if such exercise of authority would constitute an acceleration or deferral of compensation that violates Section 409A of the Code or would otherwise violate Section 409A of the Code, or (C) with

respect to any Award that is intended to qualify for an exclusion from Section 409A of the Code, if the exercise of such authority would prevent the Award from so qualifying.

10. Adjustment Provisions. In the event that any recapitalization, or reclassification, split-up, reverse split, or consolidation of shares of Common Stock shall be effected, or the outstanding shares of Common Stock shall be, in connection with a merger or consolidation of the Company or a sale by the Company of all or a part of its assets, exchanged for a different number or class of shares of stock or other securities or property of the Company or any other entity or person, or a spin-off or a record date for determination of holders of Common Stock entitled to receive a dividend or other distribution payable in Common Stock or other property (other than normal cash dividends) shall occur, (a) the maximum aggregate number and class of shares or other securities or property that may be issued in accordance with Section 4(a)(i) above pursuant to (i) Awards thereafter granted, and (ii) Awards thereafter granted that are not Appreciation-Only Awards, (b) the maximum number and class of shares or other securities or property with respect to which Options or Stock Appreciation Rights, or Awards other than Appreciation-Only Awards and Dollar- Denominated Awards, may be granted during any calendar year to any Employee or other Service Provider pursuant to Section 4(a)(ii) or 4(a)(iii) above, (c) the number and class of shares or other securities or property that may be issued under outstanding Awards, (d) the exercise price or purchase price to be paid per share under outstanding and future Awards, and (e) the price to be paid per share by the Company or a Subsidiary for shares or other securities or property issued pursuant to Awards which are subject to a right of the Company or a Subsidiary to reacquire such shares or other securities or property, shall in each case be equitably adjusted; provided that with respect to Incentive Stock Options any such adjustments shall comply with Sections 422 and 424 of the Code, and, provided further, that no such adjustments may be made to an Option or Stock Appreciation Right that the Committee intends when it grants the Option or Stock Appreciation Right to qualify as an Option or Stock Appreciation Right that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) or 1.409A-1(b)(5)(i)(B), that would cause the Option or Stock Appreciation Right to fail to qualify as such, and, provided further, that no such

adjustments may be made to an Award that would prevent any amount payable thereunder that constitutes deferred compensation that is subject to Section 409A of the Code or that is intended to qualify as a short-term deferral under Treasury Regulation section 1.409A-1(b)(4) from being objectively determinable under a nondiscretionary formula for purposes of Treasury Regulation section 1.409A-2(b)(2)(i) and, if applicable, Treasury Regulation section 1.409A-3(i)(1).

11. Effective Date and Duration of Plan; Effect on Prior Plans. The Plan shall become effective on the Effective Date. No awards shall be granted under the Prior Plan or the Prior Program on or after the Effective Date, except for awards, if any, that the Company is contractually obligated to grant under the Prior Plan or the Prior Program on or after the Effective Date pursuant to agreements in force prior to the Effective Date which are not amended to provide for the awards to be granted under the Plan. If the Plan is not approved by shareholders of the Company, the Plan (including the preceding sentence) shall be null, void and of no force or effect. If the Plan is approved by shareholders of the Company, Awards may be granted within ten years after the Effective Date, but not thereafter. In no event shall an Incentive Stock Option be granted under the Plan more than ten (10) years from the date the Plan is adopted by the Board, or the date the Plan is approved by the shareholders of the Company, whichever is earlier.

12. **Administration.**

(a) The Plan shall be administered by a committee of the Board consisting of two or more directors appointed from time to time by the Board. No person shall be appointed to or shall serve as a member of such committee unless at the time of such appointment and service he shall be an "independent director" as defined in applicable rules or listing standards of the New York Stock Exchange and a "non-employee director" as defined in SEC Rule 16b-3. Unless the Board determines otherwise, such committee shall also be comprised solely of "outside directors" within the meaning of Section 162(m)(4)(C)(i) of the Code and Treasury Regulation Section 1.162-27(e)(3). Notwithstanding the foregoing, if and to the maximum extent permissible under applicable laws and regulations, including in particular but not limited to Sections 141(c) and 157(c) of the General Corporation Law of Delaware, and applicable rules or listing standards of the New York Stock Exchange, any or all of the authority and responsibility of the Committee under the Plan may be exercised with respect to Service Providers who at the time any such authority or responsibility is exercised are not and have never been (i) Section 16 Persons, or (ii) "covered employees" within the meaning of Section 162(m)(3) of the Code, by (A) another committee of the Board to which the Board delegates such authority or responsibility, the members of which committee may be officers or employees of the Company and need not be "independent directors", "non-employee directors" or "outside directors" referred to above, or (B) a Chief Executive Officer of the Company and/or a chairperson of the Committee to whom the Board or the Committee delegates such authority or responsibility. To the extent that the Board or the Committee (as applicable) delegates the authority and responsibility of the Committee pursuant to the foregoing, all references to the Committee in the Plan shall be deemed to refer to the committee to which, or the person to whom, such authority and responsibility is so delegated.

(b) The Committee may establish such rules and regulations, not inconsistent with the provisions of the Plan, as it may deem necessary for the proper administration of the Plan, and may amend or revoke any rule or regulation so established. The Committee shall, subject to the provisions of the Plan, have full power and discretion to interpret, administer and construe the Plan and full authority to make all determinations and decisions thereunder including without limitation the authority and discretion to (i) determine the persons who are Service Providers and select the Service Providers who are to participate in the Plan, (ii) determine when Awards shall be granted,

(iii) determine the number of shares and/or amount of money to be made subject to each Award, (iv) determine the type of Award to grant, (v) determine the terms and conditions of each Award, including the exercise price, in the case of an Option or Stock Appreciation Rights, and whether specific Awards shall be linked to one another and if so whether they shall be alternative to or supplement one another, (vi) make any adjustments pursuant to Section 10 of the Plan, and (vii) determine whether or not a specific Award is intended to qualify as Performance-Based Compensation. Without limiting the generality of the foregoing, the Committee shall have the authority to establish and administer performance goals applicable to Awards, and the authority to certify that such performance goals are attained, within the meaning of Treasury Regulation Section 1.162-27(c)(4). The interpretation by the Committee of the terms and provisions of the Plan and any instrument issued thereunder, and its administration thereof, and all action taken by the Committee, shall be final, binding and

conclusive on the Company, its stockholders, Subsidiaries, Allied Enterprises, all participants and Service Providers, and upon their respective Beneficiaries, successors and assigns, and upon all other persons claiming under or through any of them.

(c) Members of the Board of Directors and members of the Committee acting under this Plan shall be fully protected in relying in good faith upon the advice of counsel and shall incur no liability except for gross or willful misconduct in the performance of their duties.

13. **General Provisions.**

(a) No Award, including without limitation any Option or Stock Appreciation Rights, shall be transferable by the Service Provider or other rightful holder of such Award other than by will or the laws of descent and distribution or to a Beneficiary. The preceding sentence and any other provision of the Plan to the contrary notwithstanding, the Committee may (but need not) permit a Service Provider to transfer any Non-Statutory

Stock Option or Stock Appreciation Right that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) or 1.409A-1(b)(5)(i)(B), other than a Non-Statutory Stock Option or Stock Appreciation Right that is linked to an Incentive Stock Option, during his lifetime to such other persons and such entities and on such terms and subject to such conditions as the Committee may provide in the written instrument documenting such Non-Statutory Stock Option or Stock Appreciation Right; provided that such transfer would not cause such Non-Statutory Stock Option or Stock Appreciation Right to fail to qualify as a Non-Statutory Stock Option or Stock Appreciation Right that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) or 1.409A-1(b)(5)(i)(B).

(b) Nothing in this Plan or in any instrument executed pursuant hereto shall confer upon any person any right to continue in the employment or other service of the Company or a Subsidiary or an Allied Enterprise, or shall affect the right of the Company or a Subsidiary or any Allied Enterprise to terminate the employment or other service of any person at any time with or without cause or assigning a reason therefor.

(c) No shares of Common Stock shall be issued or transferred pursuant to an Award unless and until all legal requirements applicable to the issuance or transfer of such shares have, in the opinion of the General Counsel, been satisfied. Any such issuance or transfer shall be contingent upon the person acquiring the shares giving the Company any assurances the General Counsel may deem necessary or desirable to assure compliance with all applicable legal requirements.

(d) No person (individually or as a member of a group) and no Beneficiary or other person claiming under or through him, shall have any right, title or interest in or to any shares of Common Stock (i) issued or transferred to, or acquired by, a trust or other legal entity pursuant to the next sentence of this Section 13(d), (ii) allocated, or (iii) reserved for the purposes of this Plan, or subject to any Award, except as to such shares of Common Stock, if any, as shall have been issued to him. The Committee may (but need not) provide at any time or from time to time (including without limitation upon or in contemplation of a Change in Control) for a number of shares of Common Stock, equal to the number of such shares subject to Awards then outstanding, to be issued or transferred to, or acquired by, a trust (which may but need not be a grantor trust) or other legal entity for the purpose of satisfying the Company's obligations under such Awards, and, unless prohibited by applicable law, such shares held in trust or in such other legal entity shall be considered authorized and issued shares with full dividend and voting rights, notwithstanding that the Awards to which such shares relate shall not have been exercised or may not be exercisable or vested at that time.

(e) In the event the laws of a foreign country, in which the Company or a Subsidiary or any Allied Enterprise has Service Providers, prescribe certain requirements for stock incentives to qualify for advantageous tax treatment under the laws of that country (including, without limitation, laws establishing options analogous to Incentive Stock Options), the Board of Directors, may restate, in whole or in part, this Plan and may include in such restatement additional provisions for the purpose of qualifying the restated plan and stock incentives granted thereunder under such laws; provided, however, that (i) the terms and conditions of a stock incentive granted under such restated plan may not be more favorable to the recipient than would be permitted if such stock incentive had been granted under the Plan as herein set forth, (ii) all shares allocated to or utilized for the purposes of such restated plan shall be subject to the limitations of Section 4, and (iii) the provisions of the restated plan may give the Board less but not more discretion to amend or terminate such restated plan than is provided with respect to this Plan by the provisions of Section 14 hereof.

(f) The Company and its Subsidiaries and any Allied Enterprises may make such provisions as they may deem appropriate for the withholding of any taxes which they determine they are required to withhold in connection with any Award. Without limiting the foregoing, the Committee may, subject to such terms and conditions as it may impose, permit or require any withholding tax obligation arising in connection with any Award or the grant, exercise, vesting, distribution or payment of any Award, up to the minimum required federal, state and local withholding taxes, including payroll taxes, to be satisfied in whole or in part, with or without the consent of the Service Provider or other rightful holder of the Award, by having the Company withhold all or any part of the shares of Common Stock that vest or would otherwise be issued or distributed at such time. Any shares so withheld shall be valued at their Fair Market Value on the date of such withholding.

(g) Nothing in this Plan is intended to be a substitute for, or shall preclude or limit the establishment or continuation of, any other plan, practice or arrangement for the payment of

compensation or fringe benefits to directors, officers, employees, consultants or Service Providers generally, or to any class or group of such persons, which the Company or any Subsidiary now has or may hereafter lawfully put into effect, including, without limitation, any incentive compensation, retirement, pension, group insurance, stock purchase, stock bonus or stock option plan. A Service Provider may be granted an Award whether or not he is eligible to receive similar or dissimilar incentive compensation under any other plan or arrangement of the Company.

(h) The Company's obligation to issue shares of Common Stock or to pay money in respect of any Award shall be subject to the condition that such issuance or payment would not impair the Company's capital or constitute a breach of or cause the Company to be in violation of any covenant, warranty or

representation made by the Company in any credit agreement to which the Company is a party before the date of grant of such Award.

(i) By accepting any benefits under the Plan, each Service Provider, and each person claiming under or through him, shall be conclusively deemed to have indicated his acceptance and ratification of, and consent to, all provisions of the Plan and any action or decision under the Plan by the Company, its agents and employees, and the Board of Directors and the Committee.

(j) The validity, construction, interpretation and administration of the Plan and of any determinations or decisions made thereunder, and the rights of all persons having or claiming to have any interest therein or thereunder, shall be governed by, and determined exclusively in accordance with, the laws of the State of Delaware, but without giving effect to the principles of conflicts of laws thereof. Without limiting the generality of the foregoing, the period within which any action arising under or in connection with the Plan must be commenced, shall be governed by the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof, irrespective of the place where the act or omission complained of took place and of the residence of any party to such action and irrespective of the place where the action may be brought. A Service Provider's acceptance of any Award shall constitute his irrevocable and unconditional waiver of the right to a jury trial in any action or proceeding concerning the Award, the Plan or any rights or obligations of the Service Provider or the Company under or with respect to the Award or the Plan.

(k) The use of the masculine gender shall also include within its meaning the feminine. The use of the singular shall include within its meaning the plural and vice versa.

14. Amendment and Termination. Subject to any applicable shareholder approval requirements of Delaware or federal law, the New York Stock Exchange or the Code, the Plan may be amended by the Board of Directors at any time and in any respect, including without limitation to permit or facilitate qualification of Options theretofore or thereafter granted (a) as Incentive Stock Options under the Code, or (b) for such other special tax treatment as may be enacted on or after the date on which the Plan is approved by the Board, provided that, without stockholder approval, no amendment shall increase the aggregate number of shares which may be issued under the Plan, or shall permit the exercise price of outstanding Options or Stock Appreciation Rights to be reduced, except as permitted by Section 7(h), Section 8(h) and Section 10 hereof. The Plan may also be terminated at any time by the Board of Directors. No amendment or termination of this Plan shall adversely affect any Award granted prior to the date of such amendment or termination without the written consent of the holder of such Award.

15. **Code Section 409A Provisions.**

(a) Notwithstanding any provision of this Plan to the contrary, (i) no "distributions" (within the meaning of Treasury Regulation section 1.409A-1(c)(3)(v)) of deferred compensation that is subject to Section 409A of the Code may be made pursuant to this Plan to a "specified employee" (within the meaning of Treasury Regulation section 1.409A-1(i))(" Specified Employee ") due to a separation from service as defined in Treasury Regulation section 1.409A-1(h) (" Separation from Service ") before the date that is six months after the date of such Specified Employee's Separation from Service (or, if earlier than the end of the six month period, the date of his or her death); and (ii) any distribution that, but for the preceding clause (i), would be made before the date that is six months after the date of the Specified Employee's Separation from Service shall be paid on the first day of the seventh month following the date of his or her Separation from Service (or, if earlier, within 14 days after the date of his or her death). For the avoidance of doubt, the preceding sentence shall apply to any amount or benefit (and only to any amount or benefit) to be paid or provided pursuant to this Plan to which Code Section 409A(a)(2)(B)(i) (relating to Specified Employees) applies, and shall not apply to any amount or benefit to be paid or provided pursuant to this Plan if and to the extent that such amount or benefit is not subject to Section 409A of the Code for any reason, including, without limitation, Treasury Regulation section 1.409A-1(a)(5) (relating to welfare benefit plans), Treasury Regulation section 1.409A-1(b)(4) (relating to short-term deferrals), Treasury Regulation section 1.409A-1(b)(9) (relating to separation pay plans), or the "grandfather" rules incorporated in Treasury Regulation section 1.409A-6.

(b) If at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, a person who participates in or has any legally binding right, contingent or otherwise, under this Plan (a " Participant "), is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code section 416(i)(5)), then the Participant shall be treated as a Specified Employee for purposes of Section 15(a) above for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board of Directors or the Committee at any time prescribes a different method of identifying service providers who will be subject to the six month delay required by Section 409A(a)(2)(B)(i) of the Code (the " Six Month Delay ") in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a " Different Identification Method ") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a " Different Election "), in which case whether the Participant shall be treated as a Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board or Committee. By participating or continuing to participate in this Plan or accepting any legally binding right under this Plan, the Participant irrevocably (i) consents to any such Different Identification Method that the Board or Committee may prescribe at any time and any such Different Election that the Board or Committee may make at any time for purposes of

identifying the service providers who will be subject to the Six Month Delay with respect to payments under this Plan, and (ii) agrees that the Participant's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (iii) waives any right he or she may have to consent to the Different Identification Method or Different Election in question if for any reason the Participant's consent to such Different Identification Method or Different Election is not legally effective.

(c) If a Participant has any right under this Plan to "a series of installment payments that is not a life annuity" (within the meaning of Treasury Regulation section 1.409A-2(b)(2)(iii)), then such right shall be treated as a right to a series of separate payments within the meaning of Treasury Regulation section 1.409A-2(b)(2)(iii), in order to maximize the payments (if any) that may be excluded from Section 409A of the Code pursuant to Treasury Regulation

section 1.409A-1(b)(4) (relating to short-term deferrals) or Treasury Regulation section 1.409A-1(b)(9)(iii) (relating to payments due to involuntary separation from service or participation in a window program).

(d) Any compensation that may be paid or provided pursuant to this Plan is intended to qualify for an exclusion from Section 409A of the Code or to comply with Section 409A of the Code, so that none of such compensation will be includible in the Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code. This Plan shall be administered, interpreted and construed to carry out such intention, and any provision of this Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any compensation that may be paid or provided pursuant to this Plan will not be includible in the Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, nor does the Company make any other representation, warranty or guaranty to the Participant as to the tax consequences of this Plan or of participation in this Plan.

BARNES GROUP INC.
STOCK AND INCENTIVE AWARD PLAN
as amended on March 15, 2010

Preamble

The Plan, as amended on March 15, 2010, which is set forth below, is intended to apply to Awards that are granted on or after that date as well as to Awards that were granted before that date that are outstanding on that date ("Outstanding Awards"), except for Outstanding Awards that were earned and vested (within the meaning of Treasury Regulation section 1.409A-6(a)(2)) on December 31, 2004 ("Grandfathered Awards"). Unless a Grandfathered Award is amended to incorporate by reference the terms and conditions of the Plan as amended on and after December 31, 2008, Grandfathered Awards shall continue on and after that date to be subject to the terms and conditions of the Plan as in effect before December 31, 2008, as if the Plan had not been amended on that date.

The Plan as amended on March 15, 2010 is effective on that date. However, any provision of the Plan as so amended to the contrary notwithstanding, if any provision of the Plan as so amended would change the time or form of payment of any amount that is payable under the Plan as in effect before that date, such provision shall "apply only to amounts that would not otherwise be payable in 2008" within the meaning of paragraph .02 of §3 of Notice 2006-79 as modified by Section 3.01(B)(1) of Notice 2007-86, and shall be administered, interpreted and construed accordingly.

1. Purposes. The purposes of this Plan are (a) to provide competitive incentives that will enable the Company to attract, retain, motivate and reward persons who render services that benefit the Company or other enterprises in which the Company has

a significant interest, and (b) to align the interests of such persons with the interests of the Company's shareholders generally.

2. Definitions. Unless otherwise required by the context, the following terms, when used in this Plan, shall have the meanings set forth in this Section 2.

(a) "Allied Enterprise" means a business enterprise, other than the Company or a Subsidiary, in which the Committee determines the Company has a significant interest, contingent or otherwise.

(b) "Appreciation-Only Award" means (i) Options and Stock Appreciation Rights the exercise price of which is equal to at least 100% of Fair Market Value on the date on which the Options or Stock Appreciation Rights are granted, and (ii) Linked Stock Appreciation Rights that are granted as an alternative to the related Option after the date of grant of such Option, the exercise price of which Stock Appreciation Rights is equal to at least 100% of Fair Market Value on the date on which such Option was granted.

(c) “Award” means an award granted under this Plan in one of the forms provided for in Section 3(a).

(d) “Beneficiary” means a person or entity (including but not limited to a trust or estate), designated in writing by a Service Provider or other rightful holder of an Award, on such forms and in accordance with such terms and conditions as the Committee may prescribe, to whom such Service Provider’s or other rightful holder’s rights under the Plan shall pass in the event of the death of such Service Provider or other rightful holder. In the event that the person or entity so designated is not living or in existence at the time of the death of the Service Provider or other rightful holder of the Award, or in the

event that no such person or entity has been so designated, the “Beneficiary” shall mean the legal representative of the estate of the Service Provider or other rightful holder, or the person or entity to whom the Service Provider’s or other rightful holder’s rights with respect to the Award pass by will or the laws of descent and distribution.

(e) “Board” or “Board of Directors” means the Board of Directors of the Company, as constituted from time to time.

(f) “Change in Control” means that any of the following events has occurred:

(i) any Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates) representing 25% or more of the combined voting power of the Company’s then outstanding securities, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (A) of paragraph (iii) below; or

(ii) the following individuals cease for any reason to constitute a majority of the number of directors serving on the Board: individuals who, at the beginning of any period of two consecutive years (not including any period prior to the Effective Date), constitute the Board and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board or nomination for election by the Company’s shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of such period or whose appointment, election or nomination for election was previously so approved or recommended; or

(iii) there is consummated a merger or consolidation of the Company or any Subsidiary with any other corporation, other than (A) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary, at least 60% of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation, or (B) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates) representing 25% or more of the combined voting power of the Company's then outstanding securities; or

(iv) the shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company’s assets, other than a sale or disposition by the Company of all or substantially all of the Company’s assets to an entity, at least 60% of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

For purposes of the foregoing provisions of this Section 2(f),

(A) the term “Affiliate” shall have the meaning set forth in Rule 12b-2 promulgated under Section 12 of the Exchange Act;

(B) the term “Beneficial Owner” shall have the meaning set forth in Rule 13d-3 under the Exchange Act; and

(C) the term “Person” shall have the meaning given in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 14(d) thereof, except that such term shall not include (i) any member of the Barnes family (by blood or marriage) or any entity for the benefit of, or controlled by, a member of the Barnes family (by blood or marriage), (ii) the Company or any of its subsidiaries, (iii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (iv) an underwriter temporarily holding securities pursuant to an offering of such securities, or (v) a corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company.

(g) “Code” means the Internal Revenue Code of 1986, as amended and in effect from time to time. References to a particular section of the Code shall include references to any related Treasury Regulations and to successor provisions of the Code.

(h) “Committee” means the committee appointed by the Board of Directors to administer the Plan pursuant to the provisions of Section

12(a) below.

(i) “Common Stock” means common stock of the Company, par value $.01 per share.

(j) “Company” means Barnes Group Inc., a Delaware corporation, and, except for purposes of determining under Section 2(f) hereof whether or not a Change in Control has occurred, shall include its successors.

(k) “Dividend Equivalents” means a right granted subject to and in accordance with the provisions of Section 5.III. and the other applicable provisions of the Plan (including, without limitation, Section 9).

(l) “Dollar-Denominated Awards” means Performance Unit Awards and any other Incentive Award the amount of which is based on a specified amount of money (other than an amount of money determined by reference to the Fair Market Value of a specified number of shares of Common Stock). Options and Stock Appreciation Rights are not Dollar-Denominated Awards.

(m) “Effective Date” means the first date (if any) on which the shareholders of the Company approve the Plan either (i) at a duly held stockholders’ meeting, or (ii) by the written consent of the holders of a majority of the securities of the Company entitled to vote, in accordance with any applicable provisions of the Delaware General Corporation Law.

(n) “Employee” means any person who is employed by the Company or a Subsidiary on a full-time or part-time basis, including an officer or director if he is so employed.

(o) “Exchange Act” means the Securities Exchange Act of 1934, as amended from time to time.

(p) “Fair Market Value” on a particular date means as follows:

(i) If the principal market for the Common Stock is a national securities exchange or The NASDAQ Stock Market, the mean between the highest and lowest sale prices per share of Common Stock in trading on such date as reported by Reuters or another source designated by the Committee; or

(ii) If the principal market for the Common Stock is not a national securities exchange or The NASDAQ Stock Market, the mean between the highest and lowest sale prices per share of Common Stock in trading on such date in the over-the-counter market, as reported by the NASDAQ OTC Bulletin Board, the National Quotation Bureau or such other system then providing quotations with regard to trades in the Common Stock or, if on such date the Common Stock is

publicly traded but not quoted by any such system, the mean between the highest bid and lowest asked prices per share of Common Stock on such date as furnished by a professional market maker making a market in the Common Stock; or

(iii) If in (i) or (ii) above, as applicable, there were no sales on such date reported as provided above, the mean between the respective prices on the most recent prior day for which sales were so reported.

If the foregoing method of determining fair market value should be inconsistent with Section 422, Section 162(m)(4)(C) or any other provision of the Code, then, with respect to Awards (including in particular but not limited to Incentive Stock Options) and transactions that are intended by the Committee to satisfy Section 422, Section 162(m)(4)(C) or any other provision of the Code, “Fair Market Value” shall be determined by the Committee in a manner consistent with Section 422, Section 162(m)(4)(C) or such other provision of the Code and shall mean the value as so determined.

(q) “General Counsel” means the General Counsel of the Company serving from time to time.

(r) “Incentive Award” means an amount of money that is paid or a number of shares of Common Stock that are issued, or a right to be paid an amount of money or to be issued a number of shares of Common Stock that is granted, subject to and in accordance with Section 5 and the other applicable provisions of the Plan (including, without limitation, Section 4 and Section 9). The term “Incentive Award” does not include Options or Stock Appreciation Rights.

(s) “Incentive Stock Option” means an option, including an Option as the context may require, intended to meet the requirements of Section 422 of the Code.

(t) “Linked Stock Appreciation Rights” means Stock Appreciation Rights that are linked to all or any part of an Option, subject to and in accordance with Section 8(a), 8(b) and the other applicable provisions of the Plan (including, without limitation, Section 9).

(u) “Non-Statutory Stock Option” means an option, including an Option as the context may require, which is not intended to be an Incentive Stock Option.

(v) “Option” means an option granted under this Plan to purchase shares of Common Stock. Options may be Incentive Stock Options or Non-Statutory Stock Options.

(w) “Performance-Based Compensation” means compensation that satisfies the requirements applicable to “performance- based compensation” under Code Section 162(m)(4)(C).

(x) “Performance Share Award” means a right granted subject to and in accordance with Section 5 and the other applicable provisions of the Plan (including, without limitation, Section 5.II., 5.II.(d), 6(e) and Section 9) to receive a specified number of shares of Common Stock, and/or an amount of money determined by reference to the Fair Market Value of a specified number of shares of Common Stock, at a future time or times if a specified performance goal is attained and any other terms and conditions set forth in the written instrument documenting the Performance Share Award are satisfied.

(y) “Performance Unit Award” means a right granted subject to and in accordance with Section 5 and the other applicable provisions of the Plan (including, without limitation, Section 5.II., 5.II.(d), 6(e) and Section 9) to receive a specified amount of money (other than an amount of money determined by reference to the Fair Market Value of a specified number of shares of Common Stock), or shares of Common Stock having a Fair Market Value equal to such specified amount of money, at a future time or times if a specified performance goal is attained and any other terms and conditions set forth in the written instrument documenting the Performance Unit Award are satisfied.

time.

(z) “Plan” means the Barnes Group Inc. Stock and Incentive Award Plan set forth in these pages, as amended from time to

(aa) “Prior Plan” means the 1991 Barnes Group Stock Incentive Plan approved by stockholders of the Company at the 1991 Annual Meeting of Stockholders, as amended and in effect from time to time.

(bb) “Prior Program” means the Barnes Group Inc. Employee Stock and Ownership Program approved by stockholders of the Company at the 2000 Annual Meeting of Stockholders, as amended and in effect from time to time.

(cc) [RESERVED]

(dd) “Restricted Stock Award” means shares of Common Stock which are issued to a Service Provider in accordance with Section 5.I. and the other applicable provisions of the Plan (including, without limitation, Section 9) subject to restrictions and/or

forfeiture provisions specified by the Committee that will cease to apply at a future time or times if continued employment conditions and/or other terms and conditions set forth in the written instrument documenting the Restricted Stock Award are satisfied.

(ee) “Restricted Stock Unit Award” means shares of Common Stock that will be issued to a Service Provider at a future time or times subject to and in accordance with Section 5.I. below and the other applicable provisions of the Plan (including, without limitation, Section 9) if continued employment conditions and/or other terms and conditions set forth in the written instrument documenting the Restricted Stock Unit Award are satisfied.

(ff) “SEC Rule 16b-3” means Rule 16b-3 of the Securities and Exchange Commission promulgated under the Exchange Act, as such rule or any successor rule may be in effect from time to time.

(gg) “Section 16 Person” means a person subject to potential liability under Section 16(b) of the Exchange Act with respect to transactions involving equity securities of the Company.

(hh) “Service Provider” means a person who renders, has rendered or who the Committee expects to render services that benefit or will benefit the Company or a Subsidiary or an Allied Enterprise, in the capacity of employee, director, independent contractor, agent, advisor, consultant, representative or otherwise, and includes but is not limited to (i) Employees, (ii) personal service corporations, limited liability companies and similar entities through which any such person renders, has rendered or is expected to render such services, and (iii) members of the Board who are not Employees.

(ii) “Stock Appreciation Right” means a right granted subject to and in accordance with Section 8 and the other applicable provisions of the Plan (including, without limitation, Section 9).

(jj) “Subsidiary” means a corporation or other form of business association of which shares (or other ownership interests) having more than 50% of the voting power are owned or controlled, directly or indirectly, by the Company; provided, however, that in the case of an Incentive Stock Option, the term “Subsidiary” shall mean a Subsidiary (as defined by the preceding clause) which is also a “subsidiary corporation” as defined in Section 424(f) of the Code.

3. **Grants of Awards**

(a) Subject to the provisions of the Plan, the Committee may at any time, and from time to time, grant the following types of awards to any

Service Provider:

(i) Incentive Awards, which may but need not be in the form of Dividend Equivalents, Performance Share Awards, Performance Unit Awards, Restricted Stock Awards, or Restricted Stock Unit Awards;

(ii) Options; and

(iii) Stock Appreciation Rights.

Any provision above of this Section 3(a) to the contrary notwithstanding, the Committee may grant Incentive Stock Options only to Service Providers who are Employees.

(b) After an Award has been granted,

(i) the Committee may waive any term or condition thereof that could have been excluded from such Award when it was granted, and

(ii) with the written consent of the affected participant, may amend any Award after it has been granted to include (or exclude) any provision which could have been included in (or excluded from) such Award when it was granted unless this Plan indicates when such provision may be included in (or excluded from) such Award, in which case such Award may be amended to include (or exclude) such provision only when this Plan indicates such provision may be included in (or excluded from) such Award,

and no additional consideration need be received by the Company in exchange for such waiver or amendment; provided that, notwithstanding the foregoing, the Committee may not waive any term or condition pursuant to clause (i) above or include (or exclude) any provision pursuant to clause (ii) above if doing so would—(A) be inconsistent with any other provision of this Plan, or
(B) cause an Option or Stock Appreciation Right that the Committee intends when it grants the Option or Stock Appreciation Right to qualify as an Option or Stock Appreciation Right that "does not provide for a deferral of compensation" within the meaning of

Treasury Regulation section 1.409A-1(b)(5)(i)(A) or 1.409A-1(b)(5)(i)(B), to fail to qualify as such, or (C) constitute an acceleration or deferral of compensation that violates Section 409A of the Code, or would otherwise violate Section 409A of the Code, or
(D) cause an Award that is intended to qualify for an exclusion from Section 409A of the Code to fail to so qualify, or (E) cause an Award which is intended to qualify as performance-based compensation within the meaning of Section 162(m) of the Code to fail to qualify as such.

(c) The Committee may (but need not) grant any Award linked to another Award, including, without limitation, Options linked to Stock Appreciation Rights, Dividend Equivalents linked to Options or Stock Appreciation Rights, and Dividend Equivalents linked to other Incentive Awards. Linked Awards may be granted as either alternatives or supplements to one another. The terms and conditions of any such linked Awards shall be determined by the Committee, subject to the provisions of the Plan.

(d) No Service Provider may exercise any rights in or to or with respect to any Award unless and until a written instrument (in paper or electronic form) approved by a duly authorized officer of the Company and setting forth the terms and conditions of the Award is delivered or made available to the Service Provider by the Company and is returned to the designated Company representative subscribed by the Service Provider within the time, if any, prescribed therefor by the Committee or its delegate. Any such instrument shall be consistent with this Plan and incorporate it by reference. The foregoing provisions of this Section 3(d) are intended to impose a condition governing the exercise of an Award, and not a condition on the granting of the Award (within the meaning of Treasury Regulation sections 1.409A-1(b)(5)(vi)(B)(2) & (3) and 1.421-1(c)(2) & (3)). Subscribing such instrument and returning it to the Company, or accepting any benefits under the Award, shall constitute the Service Provider's irrevocable agreement to and acceptance of the terms and conditions of the Award set forth in such instrument and the terms and conditions of the Plan applicable to such Award.

(e) [RESERVED]

(f) The Committee may grant Awards that qualify as Performance-Based Compensation, as well as Awards that do not qualify as Performance-Based Compensation. Any provision of the Plan to the

contrary notwithstanding, the Plan shall be interpreted, administered and construed to permit the Committee to grant Awards that qualify as Performance-Based Compensation as well as Awards that do not so qualify, and any provision of the Plan that cannot be so interpreted, administered or construed shall to that extent be disregarded.

(g) The Plan is intended to enable the Committee to grant Options that qualify for the tax treatment applicable to incentive stock options under Section 422 of the Code, as well as Options and other Awards that do not qualify for such tax treatment. Any provision of the Plan to the contrary notwithstanding, the Plan shall be interpreted, administered and construed to enable the Committee to grant Options that qualify for the tax treatment applicable to incentive stock options under Section 422 of the Code as well as Options and other Awards that do not qualify for such tax

treatment, and any provision of the Plan that cannot be so interpreted, administered or construed shall to that extent be disregarded.

4. **Stock Subject to this Plan; Award Limits**

(a) Subject to the provisions below of Sections 4(c) and 4(d) and Section 10,

(i) the maximum aggregate number of shares of Common Stock which may be issued pursuant to Awards is 5,700,000 shares of Common Stock, plus (A) the number of shares of Common Stock, if any, that remain available on the Effective Date for grants of awards under the Prior Plan, plus (B) the number of shares of Common Stock, if any, that remain available on the Effective Date for grants of awards under the Prior Program, plus (C) the number of shares of Common Stock that become available after the Effective Date for grants of awards under either the Prior Plan or the Prior Program pursuant to the terms of the Prior Plan or the Prior Program, less (D) the number of shares of Common Stock necessary to satisfy any awards that the Company is obligated to grant under either the Prior Plan or the Prior Program after the Effective Date pursuant to agreements in force prior to the Effective Date which are not amended to provide for the awards to be granted under the Plan. Not more than 50% of such maximum aggregate number of shares may be issued pursuant to Awards that are not Appreciation-Only Awards, and not more than 950,000 of such maximum aggregate number of shares may be issued pursuant to Options that are Incentive Stock Options; and

(ii) the maximum number of shares of Common Stock with respect to which Options or Stock Appreciation Rights may be granted during any calendar year to any Employee or other Service Provider is 1,000,000 shares of Common Stock; and

(iii) the maximum number of shares of Common Stock with respect to which any and all Awards other than Appreciation-

Only Awards and Dollar-Denominated Awards may be granted in any one calendar year to any Employee or other Service Provider is 500,000 shares of Common Stock; and

(iv) no Employee or other Service Provider may receive more than seven million dollars (or the equivalent thereof in shares of Common Stock, based on Fair Market Value on the date as of which the number of shares is determined) in payment of Dollar-Denominated Awards that are granted to such Employee or other Service Provider in any one calendar year.

If, after any Award is earned or exercised, the issuance or transfer of shares of Common Stock or payment of money is deferred, any amounts equivalent to dividends or other earnings during the deferral period (including shares which may be distributed in payment of any such amounts) shall be disregarded in applying the per Employee or other Service Provider limitations set forth above in clauses (ii), (iii) and (iv) of this Section 4(a).

If, in connection with an acquisition of another company or all or part of the assets of another company by the Company or a Subsidiary, or in connection with a merger or other combination of another

company with the Company or a Subsidiary, the Company either (A) assumes stock options or other stock incentive obligations of such other company, or (B) grants stock options or other stock incentives in substitution for stock options or other stock incentive obligations of such other company, then the stock options or other stock incentive obligations so assumed or granted in substitution by the Company shall not be granted (or be deemed granted) under the Plan and therefore none of the shares of Common Stock that are issuable or transferable pursuant to such stock options or other stock incentives that are assumed or granted in substitution by the Company shall be charged against the limitations set forth in this Section 4(a) above.

(b) Shares which may be issued pursuant to Awards may be authorized but unissued shares of Common Stock, shares of Common Stock held in the treasury, whether acquired by the Company specifically for use under this Plan or otherwise, or shares issued or transferred to, or otherwise acquired by, a trust or other legal entity pursuant to Section 13(d) below, as the Committee may from time to time determine, provided, however, that any shares acquired or held by the Company for the purposes of this Plan shall, unless and until issued or transferred to a trust or other legal entity pursuant to Section 13(d) below or to a Service Provider or other rightful holder of an Award in accordance with the terms and conditions of such Award, be and at all times remain treasury shares of the Company, irrespective of whether such shares are entered in a special account for purposes of this Plan, and shall be available for any corporate purpose.

(c) Subject to Section 4(e) below, the maximum aggregate number of shares set forth in Section 4(a)(i) above shall be charged only for the number of shares which are actually issued under the Plan; if any shares of Common Stock subject to an Award shall not be issued to a Service Provider and shall cease to be issuable to a Service Provider because of the termination, expiration, forfeiture or cancellation, in whole or in part, of such Award or the settlement of such Award in cash or for any other reason, or if any such shares shall, after issuance, be reacquired by the Company because of a Service Provider's failure to comply with the terms and conditions of an Award, the shares not so issued, or the shares so reacquired by the Company, as the case may be, shall no longer be charged against the limitations provided for in Section 4(a)(i) above and may again be made subject to Awards.

(d) Subject to Section 4(e) below, if the purchase price of shares subject to an Option is paid in shares of Common Stock in accordance with the provisions of clause (iv) of Section 7(b) below, or if shares of Common Stock that are issued or issuable pursuant to an Award are withheld by the Company in accordance with Section 13(f) below in full or partial satisfaction of withholding taxes due in respect of the Award or due in respect of the grant, exercise, vesting, distribution or payment of the Award, the number of shares surrendered to the Company in payment of the purchase price of the shares subject to the Option, or the number of shares that are withheld by the Company in payment of such withholding

taxes, shall be added back to the maximum aggregate number of shares which may be issued pursuant to Awards under Section 4(a)(i) above, so that the maximum aggregate number of shares which may be issued pursuant to Awards under Section 4(a)(i) above shall have been charged only for the net number of shares that were issued by the Company pursuant to the Option exercise or the Award.

(e) If and to the extent that the General Counsel determines that Section 4(c) or Section 4(d) above or Section 8(f) below shall cause the Company or the Plan to fail to satisfy the rules or listing standards of the New York Stock Exchange as in effect from time to time, or shall prevent Incentive Stock Options granted under the Plan from qualifying as Incentive Stock Options under Code Section 422, then to that extent (and only to that extent) Section 4(c), Section 4(d) or Section 8(f) shall be disregarded. For example, if the General Counsel determines that one or more of the aforementioned Sections of the Plan will prevent Incentive Stock Options granted under the Plan from qualifying as Incentive Stock Options under Code Section 422 if such Sections of the

Plan are applied in determining the number of shares of Common Stock that are available from time to time to be issued

pursuant to Options that are Incentive Stock Options, and determines that such Sections of the Plan will not prevent Incentive Stock Options granted under the Plan from qualifying as Incentive Stock Options under Code Section 422 if such Sections of the Plan are applied in determining the number of shares of Common Stock that are available from time to time to be issued pursuant to Options that are Non-Statutory Stock Options or other Awards that are not Incentive Stock Options, then such Sections of the Plan shall be disregarded for purposes of determining the number of shares of Common Stock that are available from time to time to be issued pursuant to Options that are Incentive Stock Options, but not for purposes of determining the number of shares of Common Stock that are available from time to time to be issued pursuant to Options that are Non-Statutory Stock Options or other Awards that are not Incentive Stock Options.

5. **Incentive Awards**

I. Generally . Except as otherwise provided in Section 13(e), Incentive Awards shall be subject to the following provisions:

(a) Incentive Awards may be granted in lieu of, or as a supplement to, any other compensation that may have been earned by the Service Provider prior to the date on which the Incentive Award is granted. The amount of an Incentive Award may be based upon (i) a specified number of shares of Common Stock or the Fair Market Value of a specified number of shares of Common Stock, or (ii) an amount of money not determined by reference to the Fair Market Value of a specified number of shares of Common Stock. Any Incentive Award may be paid in the form of money or shares of Common Stock valued at their Fair Market Value on the payment date, or a combination of money and such shares, as the Committee may provide. Dividend Equivalents, Performance Share Awards, Performance Unit Awards, Restricted Stock Awards and Restricted Stock Unit Awards are specific forms of Incentive Awards, but are not the only forms in which Incentive Awards may be made.

(b) Any shares of Common Stock that are to be issued pursuant to an Incentive Award, and any money to be paid in respect of an Incentive Award, may be issued or paid to the Service Provider at the time such Award is granted, or at any time subsequent thereto, or in installments from time to time, as the Committee shall determine when it grants the Award or at such other time as complies with Section 409A of the Code (if applicable). In the event that any such issuance or payment shall not be made to the Service Provider at the time an Incentive Award is granted, the Committee may but need not grant Dividend Equivalents in respect of the Award, or may provide that, until such shares are issued or money is paid in respect of the Award or until the Award is forfeited, and subject to such terms and conditions as the Committee may impose, the Award shall earn amounts equivalent to interest or another investment return specified by the Committee, which amounts may be paid as earned or deferred and reinvested, and which amounts may be paid either in money or shares of Common Stock, all as the Committee may provide when it grants the Award or at such other time as complies with Section 409A of the Code (if applicable).

(c) Incentive Awards shall be subject to such terms and conditions, including, without limitation, restrictions on the sale or other disposition of the shares issued or transferred pursuant to such Award, and conditions calling for forfeiture of the Award or the shares issued pursuant thereto in designated circumstances, as the Committee may determine when it grants the Award or at such other time as complies with Section 409A of the Code (if applicable); provided, however, that upon the issuance of shares pursuant to any such Award, the recipient shall, with respect to such shares, be and become a shareholder of the Company fully entitled to receive dividends, to vote and to exercise all other rights of a shareholder except to the extent otherwise provided in the Award. In the case of a Restricted Stock Award, the recipient shall pay the par value of the shares to be issued pursuant to the Award unless such payment is not required by applicable law.

II. Performance Share Awards and Performance Unit Awards

(a) Subject to the terms and conditions of the Plan, the Committee may grant any Service Provider a Performance Share Award and/or a Performance Unit Award. The Committee may but need not provide that a specified portion of the Performance Share Award or Performance Unit Award will be earned if the specified performance goal applicable to the Award is partially attained.

(b) Subject to Section 6(b) below, the specified performance goal applicable to a Performance Share Award or Performance Unit Award may but need not consist, without limitation, of any one or more of the following: completion of a specified period of employment with or other service that benefits the Company or a Subsidiary or an Allied Enterprise, achievement of financial or operational goals, and/or the occurrence of a specified circumstance or event. The performance goal applicable to Performance Share Awards and Performance Unit Awards, and the other terms and conditions of such awards, need not be the same for each award or each Service Provider to whom an award is granted. A Service Provider may (but need not) be granted Performance Share Awards and Performance Unit Awards each year, and the performance period applicable to any such Award may overlap with one or more years included in the performance period applicable to any earlier- or later-granted Award. Subject to Section 6(d) below, the Committee may retain discretion to adjust the determinations of the degree of attainment of the performance objectives applicable to Performance Share Awards and Performance Unit Awards.

(c) Subject to Section 6(e) below, when it grants the Award or at such other time as complies with Section 409A of the Code (if applicable) the Committee may but need not provide that, if the Service Provider's death or disability or another circumstance or event specified by the Committee occurs before the performance goal applicable to a Performance Share Award or Performance Unit Award is attained, and irrespective of whether the performance goal is thereafter attained, the Performance Share Award or Performance Unit Award will be earned in whole or in part (as the Committee may specify).

(d) The Committee may but need not provide for a Service Provider's Performance Share Award or Performance Unit Award to be forfeited in whole or in part if such Participant's employment by or other service that benefits the Company, a Subsidiary or an Allied Enterprise terminates for any reason before shares are issued or money is paid (as applicable) in full settlement of such Performance Share Award or Performance Unit Award.

(e) Except as otherwise provided in the instrument evidencing a Performance Share Award or Performance Unit Award, Performance Share Awards and Performance Unit Awards may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution or to a Beneficiary.

III. Dividend Equivalents. The Committee may grant any Service Provider the right to be paid, subject to such terms and conditions as the Committee may specify when it grants the right or at such other time as complies with Section 409A of the Code (if applicable), an amount of money equal to the dividends paid from time to time on a specified number of shares of Common Stock (which may but need not be based on the number of shares that are subject to another Award, including without limitation an Option or Stock Appreciation Rights, and whether or not such other Award is vested or exercisable). When it grants the right or at such other time as complies with Section 409A of the Code (if applicable), the Committee may provide for such amount of money to be paid on each date on which such dividends are paid or at a subsequent future time or times. If it is not paid on each such date, then, if so provided by the Committee when it grants the right or at such other time as complies with Section 409A of the Code (if applicable), and subject to such terms and conditions as the Committee may impose, until such money is paid or forfeited, it shall be credited to the Service Provider on the books of the Company and may earn amounts equivalent to interest or another investment return specified by the Committee, or may earn amounts equivalent to the dividends that would be paid on a

number of shares of Common Stock having a Fair Market Value on its dividend payment date equal to such amount. Any such equivalent amounts may be paid as earned or may be deferred and reinvested until a future date or dates, as the Committee may specify when it grants the right or at such other time as complies with Section 409A of the Code (if applicable), provided that any dividends deemed reinvested in shares of Common Stock shall be deemed reinvested at Fair Market Value on the applicable dividend payment date. Dividend Equivalents may be paid in the form of money or shares of Common Stock based on their Fair Market Value on the payment date, or in a combination of money and such shares, as the Committee may provide. Any shares of Common Stock issued in payment of Dividend Equivalents shall be charged against the maximum aggregate number of shares which may be issued pursuant to Awards under Section 4(a)(i) above.

6. **Performance Measures and Other Provisions Applicable to Performance-Based Compensation Awards**

(a) Awards that the Committee intends to qualify as Performance-Based Compensation shall be granted and administered in a manner that will enable such Awards to qualify as Performance-Based Compensation.

(b) The performance goal applicable to any Award (other than an Appreciation-Only Award) that the Committee intends to qualify as Performance-Based Compensation shall be based on a relative comparison of entity performance to the performance of a comparator group, index or other external measure, targeted levels of, targeted levels of return on, or targeted levels of growth for, without limitation, any one or more of the following performance measures on a consolidated Company, consolidated group, Subsidiary, segment, business unit or divisional level, as the Committee may specify: earnings per share; earnings before taxes;

earnings before interest and taxes; earnings before interest, taxes, depreciation and amortization; net income; operating income; performance profit (operating income minus an allocated charge approximating the Company's cost of capital, before or after tax); gross margin; operating margin; improvement in or attainment of expense levels; cost reduction; debt reduction; revenue; working capital; total assets; net assets; stockholders' equity; debt to capital; cash flow; return on equity; return on capital; ratio of operating earnings to capital spending; internal rate of return; liquidity measurements; leverage; financing and other capital raising transactions; cost of capital; customer satisfaction; employee satisfaction; customer growth; attainment of strategic or operating initiatives; operating efficiencies; comparison with various stock market indices; stock price; market share; and total shareholder return. When it grants the Award or at such other time as complies with Section 162(m) and, if applicable, Section 409A of the Code, the Committee shall select the performance measure or measures on which the performance goal

applicable to any such Award shall be based and shall establish the levels of performance at which such Award is to be earned in whole or in part. Any such performance measure or combination of such performance measures may apply to the Service Provider's Award in its entirety or to any designated portion or portions of the Award, as the Committee may specify.

Prior to the end of the applicable time for establishing performance goals for an Award to which this Subsection 6(b) applies, the Committee, in its sole discretion, may specify that the foregoing performance goals shall (i) be determined in accordance with generally accepted accounting principles ("GAAP") or on a non-GAAP basis; (ii) measure the performance of the Company as a whole or any Subsidiary, business unit, division, or segment of the Company, or any combination thereof; (iii) reflect absolute entity performance or a relative comparison of entity performance to the performance of a peer group, index, or other external measure; and (iv) include or exclude (or be adjusted to include or exclude) extraordinary items, the impact of charges for restructurings or productivity initiatives, non-operating items, discontinued operations and other unusual and non-recurring items, the effects of currency fluctuations, the effects of financing activities (by way of example, without limitation, the effect on earnings per share of issuing convertible debt securities), the effects of acquisitions and acquisition

expenses, the effects of divesture and divesture expenses, and the effects of tax or accounting changes. However, notwithstanding the preceding sentence, unless the Committee determines otherwise either at the time it establishes the performance goals for an Award or prior to the payment of an Award, if any of the items referenced in clause (iv) of the preceding sentence occurs, then such item shall be automatically excluded or included in determining the extent to which the performance goal has been achieved, whichever will produce the higher Award (subject to any exercise of "negative discretion" by the Committee).

(c) Any provision of the Plan to the contrary notwithstanding, but subject to Section 6(e), Section 9 and Section 10 below, Awards to which Section 6(b) above applies shall (i) "be paid solely on account of the attainment of one or more preestablished, objective performance goals" (within the meaning of Treasury Regulation 1.162-27(e)(2) or its successor) over a period of one year or longer, which performance goals shall be based upon one or more of the performance measures set forth in Section 6(b) above, and (ii) be subject to such other terms and conditions as the Committee may impose when it grants the Award or at such other time as complies with Section 162(m) and, if applicable, Section 409A of the Code.

(d) The terms of the performance goal applicable to any Award to which Section 6(b) above applies shall preclude discretion to increase the amount of compensation that would otherwise be due upon attainment of the goal.

(e) An Award to which Section 6(b) above applies may be earned in whole or in part if the Service Provider's death or disability or a Change in Control or another circumstance or event specified by the Committee occurs before the performance goal applicable to the Award is attained, and irrespective of whether the performance goal applicable to the Award is thereafter attained, but only if and to the extent that (i) the Committee so provides with respect to such Award when it grants the Award or at such other time as complies with Section 162(m) and, if applicable, Section 409A of the Code, and (ii) the Award will nevertheless qualify as Performance-Based Compensation if the performance goal applicable to such Award is attained and the Service Provider's death or disability, a Change in Control or any such other circumstance or event specified by the Committee does not occur.

7. Options. Except as otherwise provided in Section 13(e), Options shall be subject to the following provisions and such other terms and conditions, consistent with the following provisions, as the Committee may provide in the instrument evidencing the Options:

(a) Subject to the provisions of Section 10, the purchase price per share shall be, in the case of an Incentive Stock Option, not less than 100% of the Fair Market Value of a share of Common Stock on the date the Incentive Stock Option is granted (or in the case of any optionee who, at the time such Incentive Stock Option is granted, owns stock possessing more than 10 percent of the total combined voting power of all classes of stock of his employer corporation or of its parent or subsidiary corporation, not less than 110% of the Fair Market Value of a share of Common Stock on the date the Incentive

Stock Option is granted) and, in the case of a Non-Statutory Stock Option, not less than the par value of a share of Common Stock on the date the Non-Statutory Stock Option is granted. Subject to the foregoing limitations, the purchase price per share may, if the Committee so provides at the time of grant of an Option, be indexed to the increase or decrease in an index specified by the Committee. Notwithstanding any provision of the Plan to the contrary, in the case of any Option that the Committee intends when it grants the Option to be an option that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A), the exercise price shall never be less than 100% of the Fair Market Value of the underlying stock (disregarding lapse restrictions as defined in Treasury Regulation section 1.83-3(i)) on the date the Option is granted within the meaning of Treasury Regulation section 1.409A-1(b)(vi)(B), and the number of shares subject to the Option shall be fixed on the original date of grant of the Option.

(b) The purchase price of shares subject to an Option may be paid in whole or in part (i) in money, (ii) by bank-certified, cashier's or personal check subject to collection, (iii) if so provided in the Option and subject to Section 402 of the Sarbanes- Oxley Act of 2002 as amended

from time to time and subject to such terms and conditions as the Committee may impose, by delivering to the Company a properly executed exercise notice together with a copy of irrevocable instructions to a stockbroker to sell immediately some or all of the shares acquired by exercise of the option and to deliver promptly to the Company an amount of sale proceeds (or, in lieu of or pending a sale, loan proceeds) sufficient to pay the purchase price, (iv) if so provided in the Option and subject to such terms and conditions as may be specified in the Option, in shares of Common Stock which have been owned by the optionee for at least six months or which were acquired on the open market and which are surrendered to the Company actually or by attestation, or (v) if so provided in the Option and subject to such terms and conditions as may be specified in the Option, by electing to have the Company retain some of the shares of Common Stock that would otherwise be issued pursuant to the Option exercise. Any shares of Common Stock thus surrendered to or retained by the Company shall be valued at their Fair Market Value on the date of exercise. If so provided in the Option and subject to such terms and conditions as are specified in the Option, in lieu of the foregoing methods of payment, any portion of the purchase price of the shares to be issued may be paid by a promissory note secured by a pledge of the purchased shares in such form and containing such provisions (which may but need not provide for interest and for payment of the note at the election of the Service Provider in money or in shares of Common Stock or other property surrendered to the Company) as the Committee may approve; provided that (A) payment by promissory note may be made only if and to the extent that the General Counsel determines that it is permissible under the Delaware General Corporation Law and Section 402 of the Sarbanes-Oxley Act of 2002 as amended from time to time, and (B) if the Committee permits any such note to be paid by surrender of shares of Common Stock, such shares shall be valued at their Fair Market Value on the date of such surrender, and (C) if the Committee permits any such note to be paid by surrender of other property, such other property shall be valued at its fair market value on any reasonable basis established or approved by the Committee, and (D) in the case of an Incentive Stock Option and any Option that the Committee intends when it grants the Option to be an option that “does not provide for a deferral of compensation” within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A), any such note shall bear interest at the minimum rate required to avoid imputation of interest under federal income tax laws applicable at the time of exercise and (E) any such note shall mature in ten years or such lesser period as may be specified by the Committee.

(c) Options may be granted for such lawful consideration, including but not limited to money or other property, tangible or intangible, or labor or services received or to be received by the Company, as the Committee may determine when the Option is granted. Property for purposes of the preceding sentence shall include an obligation of the Company unless prohibited by applicable law. Subject to the foregoing and the other provisions of this Section 7, each Option may be exercisable in full at the time of grant or may become exercisable in one or more installments and at such time or times and subject to such terms and conditions, as the Committee may determine when it grants the Option or at such other time as may be permissible under Section 409A of the Code (if applicable). Without limiting the foregoing, an Option may (but need not) provide by its terms that it will become exercisable in whole or in part upon the completion of specified periods of service or earlier achievement of one or more performance objectives specified therein, or that it will become exercisable only if one or more performance goals specified therein are achieved. The Committee may at any time accelerate the date on which an Option that “does not provide for a deferral of compensation” within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) becomes exercisable, and no additional consideration need be received by the Company in exchange for such acceleration. Unless otherwise provided in the instrument evidencing the Option, an Option, to the extent it becomes exercisable, may be exercised at any time in whole or in part until the expiration or termination of the Option.

(d) Subject to Section 13(a) below, each Option shall be exercisable during the life of the optionee only by him or his guardian or legal representative, and after death only by his Beneficiary. Notwithstanding any other provision of this Plan,
(i) no Option shall be exercisable after the tenth anniversary of the date on which the Option was granted, and (ii) no Incentive Stock Option which is granted to any optionee who, at the time such Option is granted, owns stock possessing more than 10 percent of the total combined voting power of all classes of stock of his employer corporation or of its parent or subsidiary corporation, shall be exercisable after the expiration of five (5) years from the date such Option is granted. If an Option is granted for a term of less than ten years, the Committee may, at any time prior to the expiration of the Option, extend its term for a period ending not later than on the tenth anniversary of the date on which the Option was granted, and no additional consideration need be received by the Company in exchange for such extension; provided that the Committee may not extend the term of an Option pursuant to this sentence if doing so would constitute an “extension” of the Option within the meaning of Treasury Regulation section 1.409A-1(b)(5)(v)(C). Subject to the foregoing provisions of this
Section 7(d) and any applicable provisions of Section 409A of the Code, the Committee may but need not provide for an Option to be exercisable after termination of the Service Provider’s employment or other service for any period and subject to any terms and conditions that the Committee may determine.

(e) An Option may, but need not, be an Incentive Stock Option; provided that the aggregate Fair Market Value (determined as of the time the option is granted) of the stock with respect to which Incentive Stock Options may be exercisable for the first time by any Employee during any calendar year (under all plans, including this Plan, of his employer corporation and its parent and subsidiary corporations) shall not exceed $100,000 unless the Code is amended to allow a higher dollar amount.

(f) Shares purchased pursuant to the exercise of an Option shall be issued to the person exercising the Option when the Option is properly exercised. No person exercising an Option shall acquire any rights of a shareholder unless and until the shares purchased pursuant to the exercise of the Option are issued to him. If so provided in the instrument evidencing the Option, the shares issued pursuant to the exercise of the Option may be non-transferable and forfeitable to the Company in designated circumstances and for specified periods of time.

(g) [RESERVED]

(h) The Committee shall not have the authority to reduce the purchase price of shares under outstanding Options, except as permitted by Section 10 below (relating to adjustments for changes in capitalization and similar adjustments). If the Committee grants an Option under which the purchase price of the optioned shares is indexed to the increase or decrease in a specified index, as permitted by Section 7(a) above, a reduction in the purchase price resulting from a decrease in the index shall not be deemed to violate the first sentence of this Section 7(h).

(i) No Employee shall make any elective contribution or employee contribution to the Plan (within the meaning of Treasury Regulation

Section 1.401(k)-1(d)(2)(iv)(B)(4) or a successor thereto) during the six months after the Employee's receipt of a hardship distribution from a plan of the Company or a related party within the provisions of Code Sections 414(b), (c), (m) or (o) containing a cash or deferred arrangement under Section 401(k) of the Code. The preceding sentence shall not apply if and to the extent that the General Counsel determines it is not necessary to qualify any such plan as a cash or deferred arrangement under Section 401(k) of the Code.

(j) No option shall be exercisable unless and until the Company (i) obtains the approval of all regulatory bodies whose approval the General Counsel may deem necessary or desirable, and (ii) complies with all legal requirements deemed applicable by the General Counsel.

(k) An Option shall be considered exercised if and when written notice, signed by the person exercising the Option and stating the number of shares with respect to which the Option is being exercised, is received by the designated representative of the Company on a properly completed form approved for this purpose by the Committee, accompanied by full payment of the Option exercise price in one or more of the forms authorized in the instrument evidencing such Option and described in Section 7(b) above for the number of shares to be purchased. No Option may at any time be exercised with respect to a fractional share unless the instrument evidencing such Option expressly provides otherwise.

8. Stock Appreciation Rights. Stock Appreciation Rights shall be subject to such terms and conditions, not inconsistent with the Plan, as shall from time to time be determined by the Committee and to the following terms and conditions:

(a) Stock Appreciation Rights that are granted under the Plan may be linked to all or any part of an Option ("Linked Stock Appreciation Rights"), or may be granted without any linkage to an Option ("Free-Standing Stock Appreciation Rights"). Linked Stock Appreciation Rights may be granted on the date of grant of the related Option or on any date thereafter, as the Committee may determine. The exercise price of Stock Appreciation Rights, the number of Stock Appreciation Rights granted, and, in the case of Linked Stock Appreciation Rights, whether the Stock Appreciation Rights are being granted as an alternative or a supplement to the Option to which they are linked, shall be determined on the date of grant of the Stock Appreciation Rights (within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B).

(b) Linked Stock Appreciation Rights may be granted either as an alternative or a supplement to the Option to which they are linked (the "related" Option), provided that Linked Stock Appreciation Rights may not be granted as a supplement to an Option that the Committee intends when it grants the Option to be an option that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A). Linked Stock Appreciation Rights that are granted as an alternative to the related Option may only be exercised when the related Option is exercisable, and at no time may a number of such Linked Stock Appreciation Rights be exercised that exceeds the number of shares with respect to which the related Option is then exercisable. Upon exercise of Linked Stock Appreciation Rights that are granted as an alternative to an Option, the holder shall be entitled to receive the amount determined pursuant to Section 8(e) below. Exercise of each such Linked Stock Appreciation Right shall cancel the related Option with respect to one share of Common Stock purchaseable under the Option. Linked Stock Appreciation Rights that are granted as a supplement to the related Option shall entitle the holder to receive the amount determined pursuant to Section 8(e) below if and when the holder purchases shares under the related Option or at any subsequent time specified in the instrument evidencing such Stock Appreciation Rights.

(c) Stock Appreciation Rights may be granted for such lawful consideration, including but not limited to money or other property, tangible or intangible, or labor or services received or to be received by the Company, as the Committee may determine when the Stock Appreciation Rights are granted. Property for purposes of the preceding sentence shall include an obligation of the Company unless prohibited by applicable law. Subject to the foregoing and the other provisions of this Section 8, Stock Appreciation Rights may be exercisable in full at the time of grant or may become exercisable in one or more installments and at such time or times and subject to such terms and conditions, as the Committee may determine when it grants the Stock Appreciation Rights or at such other time as may be permissible under Section 409A of the Code (if applicable). Without limiting the foregoing, Stock Appreciation Rights may (but need not) provide by their terms that they will become exercisable in whole or in part upon the completion of specified periods of service or earlier achievement of one or more specified performance objectives, or that they will become exercisable only if one or more specified performance goals are achieved. The Committee may at any time accelerate the date on which Stock Appreciation Rights that 'do not

provide for a deferral of compensation' within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B) become exercisable, and no additional consideration need be received by the Company in exchange for such acceleration. Unless otherwise provided in the Plan or the instrument evidencing the Stock Appreciation Rights, Stock Appreciation Rights, to the extent they become exercisable, may be exercised at any time in whole or in part until they expire or terminate.

(d) No Free-Standing Stock Appreciation Rights or Linked Stock Appreciation Rights that are granted as a supplement to the related Option shall be exercisable after the tenth anniversary of the date on which the Stock Appreciation Rights were granted, and no Linked Stock Appreciation Rights that are granted as an alternative to the related Option shall be exercisable after the related Option ceases to be exercisable. If the Committee grants Stock Appreciation Rights for a lesser term than that permitted by the preceding sentence, the Committee may, at any time prior to expiration of the Stock Appreciation Rights, extend their term to the maximum term permitted by the preceding sentence, and no additional

consideration need be received by the Company in exchange for such extension; provided that the Committee may not extend the term of Stock Appreciation Rights pursuant to this sentence if doing so would constitute an "extension" of the Stock Appreciation Rights within the meaning of Treasury Regulation section 1.409A-1(b)(5)(v)(C). Subject to the foregoing provisions of this
Section 8(d) and any applicable provisions of Section 409A of the Code, the Committee may but need not provide for Stock Appreciation Rights to be exercisable after termination of the Service Provider's employment or other service for any period and subject to any terms and conditions that the Committee may determine.

(e) Upon exercise of Stock Appreciation Rights, the holder thereof shall be entitled to receive an amount of money, or a number shares of Common Stock that have a Fair Market Value on the date of exercise of such Stock Appreciation Rights, or a combination of money and shares valued at Fair Market Value on such date, as the Committee may determine, equal to the amount by which the Fair Market Value of a share of Common Stock on the date of such exercise exceeds the Exercise Price (as hereafter defined) of the Stock Appreciation Rights, multiplied by the number of Stock Appreciation Rights exercised; provided that in no event shall a fractional share be issued unless the instrument evidencing such Stock Appreciation Rights

expressly provides otherwise. In the case of Linked Stock Appreciation Rights that are granted as an alternative to the related Option, the Exercise Price shall be the price at which shares may be purchased under the related Option; provided that, in the case of any such Stock Appreciation Rights that the Committee intends when it grants the Stock Appreciation Rights to be stock appreciation rights that 'do not provide for a deferral of compensation' within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B), the Exercise Price shall never be less than the fair market value of the underlying stock (disregarding lapse restrictions as defined in Treasury Regulation section 1.83-3(i)) on the date the rights are granted, within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B)(2). In the case of Linked Stock Appreciation Rights that are granted as a supplement to the related Option, and in the case of Free-Standing Stock Appreciation Rights, the Exercise Price shall be the Fair Market Value of a share of Common Stock on the date the Stock Appreciation Rights are granted, unless the Committee specifies a different price when the Stock Appreciation Rights are granted (which shall not be less than the par value of the Common Stock and which may be indexed to the increase or decrease in an index specified by the Committee); provided that, in the case of any such Stock Appreciation Rights that the Committee intends when it grants the Stock Appreciation Rights to be stock appreciation rights that 'do not provide for a deferral of compensation' within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B), the Exercise Price shall never be less than the fair market value of the underlying stock (disregarding lapse restrictions as defined in Treasury Regulation section 1.83-3(i)) on the date the rights are granted, within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B)(2). When the Committee grants Stock Appreciation Rights other than Stock Appreciation Rights that the Committee intends to be stock appreciation rights that 'do not

provide for a deferral of compensation' within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B), the Committee may provide that, notwithstanding the foregoing, upon exercise of the Stock Appreciation Rights at any time during a period commencing on the third business day following the date of release for publication of any annual or quarterly summary statements of the Company's sales and earnings and ending on the twelfth business day following such date (a "Window Period"), or during the thirty-day period following a Change in Control (a "Change in Control Period"), including, without limitation, upon exercise of Stock Appreciation Rights which expire before the end of the Window Period or Change in Control Period in which they are exercised ("Expiring Stock Appreciation Rights"), the amount of money or shares which a Section 16 Person shall be entitled to receive in settlement of such exercise shall equal the amount by which the highest Fair Market Value of Common Stock during such Window Period or such Change in Control Period (or, in the case of Expiring Stock Appreciation Rights, the highest Fair Market Value of Common Stock during the portion of such Window Period or Change in Control Period that precedes the expiration of such Stock Appreciation Rights) exceeds the Exercise Price of the Stock Appreciation Rights multiplied by the number of Stock Appreciation Rights exercised but, in the case of Stock Appreciation Rights that relate to an Incentive Stock Option, not in excess of the maximum amount that may be paid under Code
Section 422 without disqualifying such Option as an incentive stock option as defined in that Code section. For the avoidance of doubt, the preceding sentence shall not apply to Stock Appreciation Rights that the Committee intends when it grants the Stock Appreciation Rights to be stock appreciation rights that 'do not provide for a deferral of compensation' within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(B).

(f) Subject to Section 4(e) above, (i) the limitations set forth in Section 4(a)(i) above shall be charged only for the number of shares which are actually issued in settlement of Stock Appreciation Rights; and (ii) in the case of an exercise of Linked Stock Appreciation Rights that were granted as an alternative to the related Option, if the number of shares of Common Stock previously charged against such limitations on account of the portion of the Option that is cancelled in connection with such exercise in accordance with Section 8(b) exceeds the number of shares (if any) actually issued pursuant to such exercise, the excess may be added back to the maximum aggregate number of shares available for issuance under the Plan.

(g) Subject to Section 13(a) below, Stock Appreciation Rights shall be exercisable during the life of the Service Provider only by him or his guardian or legal representative, and after death only by his Beneficiary.

(h) The Committee shall not have the authority to reduce the exercise price of outstanding Stock Appreciation Rights, except as permitted by Section 10 below (relating to adjustments for changes in capitalization and similar adjustments). If the Committee grants Stock Appreciation Rights the exercise price of which is indexed to the increase or decrease in a specified index, as permitted by Section 8(e) above, a reduction in the exercise price resulting from a decrease in the index shall not be deemed to violate the first sentence of this Section 8(h).

9. **Certain Change in Control, Termination of Service, Death and Disability Provisions.**

(a) Notwithstanding any provision of the Plan to the contrary, unless the instrument evidencing an Award provides otherwise, (i) any Award which is outstanding but not yet fully exercisable, vested, earned or payable at the time of a Change in Control shall become fully exercisable, vested, earned and payable at that time; provided that (A) in lieu of becoming exercisable or payable at

the time of a Change in Control in accordance with the preceding provisions of this clause (i), any such Award that constitutes deferred compensation that is subject to Section 409A of the Code shall become exercisable or payable when a "change in control event" occurs with respect to the participant (within the meaning of Treasury Regulation section 1.409A-3(i)(5)(i) & (ii)) on or after the date on which a Change in Control occurs, and (B) if such Change in Control occurs less than six months after the date

on which such Award was granted and if the consideration for which such Award was granted consisted in whole or in part of future services, then (I) if such Award does not constitute deferred compensation that is subject to Section 409A of the Code, such Award shall become fully exercisable, vested, earned and payable at the time of such Change in Control only if the participant agrees in writing (if requested to do so by the Committee in writing before such Change in Control) to remain in the employment or other applicable service that benefits the Company or a Subsidiary or an Allied Enterprise, at least through the date which is six months after the date such Award was granted, with substantially the same title, duties, authority, reporting relationships, compensation and indemnification as on the day immediately preceding the Change in Control, and (II) if such Award constitutes deferred compensation that is subject to Section 409A of the Code, such Award shall become vested and earned at the time of such Change in Control only if the participant agrees in writing (if requested to do so by the Committee in writing before such Change in Control) to remain in the employment or other applicable service that benefits the Company or a Subsidiary or an Allied Enterprise, at least through the date which is six months after the date such Award was granted, with substantially the same title, duties, authority, reporting relationships, compensation and indemnification as on the day immediately preceding the Change in Control; and (ii) any Option or Stock Appreciation Right that does not provide for a deferral of compensation within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) or (B) and which is outstanding at the time of a Change in Control shall remain exercisable for the full balance of its 10 year (or lesser) term, irrespective of any provision that would otherwise cause such Option or Stock Appreciation Right to terminate sooner.

(b) Subject to Section 9(a) above, the Committee may at any time, and subject to such terms and conditions as it may impose:

(i) authorize the holder of an Option or Stock Appreciation Rights to exercise the Option or Stock Appreciation Rights following the termination of the participant's employment or other applicable service that benefits the Company or a Subsidiary or an Allied Enterprise, or following the participant's death or disability, whether or not the Option or Stock Appreciation Rights would otherwise be exercisable following such event, provided that in no event may an Option or Stock Appreciation Rights be exercised after the expiration of their term;

(ii) grant Options and Stock Appreciation Rights which become exercisable only in the event of a Change in Control;

(iii) provide for Stock Appreciation Rights to be exercised automatically and only for money in the event of a Change in Control;

(iv) authorize any Award to become non-forfeitable, fully earned and payable following (A) the termination of the Service Provider's employment with or other applicable service that benefits the Company or a Subsidiary or an Allied Enterprise, or (B) the Service Provider's death or disability, whether or not the Award would otherwise become non-forfeitable, fully earned and payable following such event;

(v) grant Awards which become non-forfeitable, fully earned and payable only in the event of a Change in Control; and

(vi) provide in advance or at the time of a Change in Control for money to be paid in settlement of any Award in the event of a Change in Control, either at the election of the participant or at the election of the Committee;

provided that the authority conferred upon the Committee by the foregoing provisions of this Section 9(b) may not be exercised (A) with respect to an Option or Stock Appreciation Right that the Committee intends when the Option or Stock Appreciation Right is granted to qualify as an Option or Stock Appreciation Right that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) or 1.409A-1(b)(5)(i)(B), if and to the extent that such

exercise of authority would cause the Option or Stock Appreciation Right to fail to qualify as such, or (B) if such exercise of authority would constitute an acceleration or deferral of compensation that violates Section 409A of the Code or would otherwise

violate Section 409A of the Code, or (C) with respect to any Award that is intended to qualify for an exclusion from Section 409A of the Code, if the exercise of such authority would prevent the Award from so qualifying.

10. Adjustment Provisions. In the event that any recapitalization, or reclassification, split-up, reverse split, or consolidation of shares of Common Stock shall be effected, or the outstanding shares of Common Stock shall be, in connection with a merger or consolidation of the

Company or a sale by the Company of all or a part of its assets, exchanged for a different number or class of shares of stock or other securities or property of the Company or any other entity or person, or a spin-off or a record date for determination of holders of Common Stock entitled to receive a dividend or other distribution payable in Common Stock or other property (other than normal cash dividends) shall occur, (a) the maximum aggregate number and class of shares or other securities or property that may be issued in accordance with Section 4(a)(i) above pursuant to (i) Awards thereafter granted, and (ii) Awards thereafter granted that are not Appreciation-Only Awards, (b) the maximum number and class of shares or other securities or property with respect to which Options or Stock Appreciation Rights, or Awards other than Appreciation-Only Awards and Dollar- Denominated Awards, may be granted during any calendar year to any Employee or other Service Provider pursuant to Section 4(a)(ii) or 4(a)(iii) above, (c) the number and class of shares or other securities or property that may be issued under outstanding Awards, (d) the exercise price or purchase price to be paid per share under outstanding and future Awards, and (e) the price to be paid per share by the Company or a Subsidiary for shares or other securities or property issued pursuant to Awards which are subject to a right of the Company or a Subsidiary to reacquire such shares or other securities or property, shall in each case be equitably adjusted; provided that with respect to Incentive Stock Options any such adjustments shall comply with Sections 422 and 424 of the Code, and, provided further, that no such adjustments may be made to an Option or Stock Appreciation Right that the Committee intends when it grants the Option or Stock Appreciation Right to qualify as an Option or Stock Appreciation Right that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) or 1.409A-1(b)(5)(i)(B), that would cause the Option or Stock Appreciation Right to fail to qualify as such, and, provided further, that no such adjustments may be made to an Award that would prevent any amount payable thereunder that constitutes deferred compensation that is subject to Section 409A of the Code or that is intended to qualify as a short-term deferral under Treasury Regulation section 1.409A-1(b)(4) from being objectively determinable under a nondiscretionary formula for purposes of Treasury Regulation section 1.409A-2(b)(2)(i) and, if applicable, Treasury Regulation section 1.409A-3(i)(1).

11. Effective Date and Duration of Plan; Effect on Prior Plans. The Plan shall become effective on the Effective Date. No awards shall be granted under the Prior Plan or the Prior Program on or after the Effective Date, except for awards, if any, that the Company is contractually obligated to grant under the Prior Plan or the Prior Program on or after the Effective Date pursuant to agreements in force prior to the Effective Date which are not amended to provide for the awards to be granted under the Plan. If the Plan is not approved by shareholders of the Company, the Plan (including the preceding sentence) shall be null, void and of no force or effect. If the Plan is approved by shareholders of the Company, Awards may be granted within ten years after the Effective Date, but not thereafter. In no event shall an Incentive Stock Option be granted under the Plan more than ten (10) years from the date the Plan is adopted by the Board, or the date the Plan is approved by the shareholders of the Company, whichever is earlier.

12. **Administration.**

(a) The Plan shall be administered by a committee of the Board consisting of two or more directors appointed from time to time by the Board. No person shall be appointed to or shall serve as a member of such committee unless at the time of such appointment and service he shall be an "independent director" as defined in applicable rules or listing standards of the New York Stock Exchange and a "non-employee director" as defined in SEC Rule 16b-3. Unless the Board determines otherwise, such committee shall also be comprised solely of "outside directors" within the meaning of Section 162(m)(4)(C)(i) of the Code and Treasury Regulation Section 1.162-27(e)(3). Notwithstanding the foregoing, if and to the maximum extent permissible under applicable laws and regulations, including in particular but not limited to Sections 141(c) and 157(c) of the General Corporation Law of Delaware, and applicable rules or listing standards of the New York Stock Exchange, any or all of the authority and responsibility of the Committee under the Plan may be exercised with respect to Service Providers who at the time any such authority or responsibility is exercised are not and have never been (i) Section 16 Persons, or (ii) "covered employees" within the meaning of Section 162(m)(3) of the Code, by (A) another committee of the Board to which the Board delegates such authority or responsibility, the members of which committee may be officers or employees of the Company and need not be "independent directors", "non-employee directors" or "outside directors" referred to above, or (B) a Chief Executive Officer of the Company and/or a chairperson of the Committee to whom the Board or the Committee delegates such authority or responsibility. To the extent that the Board or the Committee (as applicable) delegates the authority and responsibility of the Committee pursuant to the foregoing, all references to the Committee in the Plan shall be deemed to refer to the committee to which, or the person to whom, such authority and responsibility is so delegated.

(b) The Committee may establish such rules and regulations, not inconsistent with the provisions of the Plan, as it may deem necessary for the proper administration of the Plan, and may amend or revoke any rule or regulation so established. The Committee shall, subject to the provisions of the Plan, have full power and discretion to interpret, administer and construe the Plan and full authority to make all determinations and decisions thereunder including without limitation the authority and discretion to
(i) determine the persons who are Service Providers and select the Service Providers who are to participate in the Plan,
(ii) determine when Awards shall be granted, (iii) determine the number of shares and/or amount of money to be made subject to each Award, (iv) determine the type of Award to grant, (v) determine the terms and conditions of each Award, including the exercise price, in the case of an Option or Stock Appreciation Rights, and whether specific Awards shall be linked to one another and if so whether they shall be alternative to or supplement one another, (vi) make any adjustments pursuant to Section 10 of the Plan, and (vii) determine whether or not a specific Award is intended to qualify as Performance-Based Compensation. Without limiting the generality of the foregoing, the Committee shall have the authority to establish and administer performance goals applicable to Awards, and the authority to certify that such performance goals are attained, within the meaning of Treasury Regulation Section 1.162-27(c)(4). The interpretation by the Committee of the terms and provisions of the Plan and any instrument issued thereunder, and its administration thereof, and all action taken by the Committee, shall be final, binding and conclusive on the Company, its stockholders, Subsidiaries, Allied Enterprises, all participants and Service Providers, and upon their respective Beneficiaries,

successors and assigns, and upon all other persons claiming under or through any of them.

(c) Members of the Board of Directors and members of the Committee acting under this Plan shall be fully protected in relying in good faith upon the advice of counsel and shall incur no liability except for gross or willful misconduct in the performance of their duties.

13. **General Provisions.**

(a) No Award, including without limitation any Option or Stock Appreciation Rights, shall be transferable by the Service Provider or other rightful holder of such Award other than by will or the laws of descent and distribution or to a Beneficiary. The preceding sentence and any other provision of the Plan to the contrary notwithstanding, the Committee may (but need not) permit a Service Provider to transfer any Non-Statutory Stock Option or Stock Appreciation Right that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) or 1.409A-1(b)(5)(i)(B), other than a Non- Statutory Stock Option or Stock Appreciation Right that is linked to an Incentive Stock Option, during his lifetime to such other persons and such entities and on such terms and subject to such conditions as the Committee may provide in the written instrument documenting such Non-Statutory Stock Option or Stock Appreciation Right; provided that such transfer would not cause such Non-Statutory Stock Option or Stock Appreciation Right to fail to qualify as a Non-Statutory Stock Option or Stock Appreciation Right that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A) or 1.409A-1(b)(5)(i)(B).

(b) Nothing in this Plan or in any instrument executed pursuant hereto shall confer upon any person any right to continue in the employment or other service of the Company or a Subsidiary or an Allied Enterprise, or shall affect the right of the Company or a Subsidiary or any Allied Enterprise to terminate the employment or other service of any person at any time with or without cause or assigning a reason therefor.

(c) No shares of Common Stock shall be issued or transferred pursuant to an Award unless and until all legal requirements applicable to the issuance or transfer of such shares have, in the opinion of the General Counsel, been satisfied. Any such issuance or transfer shall be contingent upon the person acquiring the shares giving the Company any assurances the General Counsel may deem necessary or desirable to assure compliance with all applicable legal requirements.

(d) No person (individually or as a member of a group) and no Beneficiary or other person claiming under or through him, shall have any right, title or interest in or to any shares of Common Stock (i) issued or transferred to, or acquired by, a trust or other legal entity pursuant to the next sentence of this Section 13(d), (ii) allocated, or (iii) reserved for the purposes of this Plan, or subject to any Award, except as to such shares of Common Stock, if any, as shall have been issued to him. The Committee may (but need not) provide at any time or from time to time (including without limitation upon or in contemplation of a Change in Control) for a number of shares of Common Stock, equal to the number of such shares subject to Awards then outstanding, to be issued or transferred to, or acquired by, a trust (which may but need not be a grantor trust) or other legal entity for the purpose of satisfying the Company's obligations under such Awards, and, unless prohibited by applicable law, such shares held in trust or in such other legal entity shall be considered authorized and issued shares with full dividend and voting rights, notwithstanding that the Awards to which such shares relate shall not have been exercised or may not be exercisable or vested at that time.

(e) In the event the laws of a foreign country, in which the Company or a Subsidiary or any Allied Enterprise has Service Providers, prescribe certain requirements for stock incentives to qualify for advantageous tax treatment under the laws of that country (including, without limitation, laws establishing options analogous to Incentive Stock Options), the Board of Directors, may restate, in whole or in part, this Plan and may include in such restatement additional provisions for the purpose of qualifying the restated plan and stock incentives granted thereunder under such laws; provided, however, that (i) the terms and conditions of a stock incentive granted under such restated plan may not be more favorable to the recipient than would be permitted if such stock incentive had been granted under the Plan as herein set forth, (ii) all shares allocated to or utilized for the purposes of

such restated plan shall be subject to the limitations of Section 4, and (iii) the provisions of the restated plan may give the Board less but not more discretion to amend or terminate such restated plan than is provided with respect to this Plan by the provisions of Section 14 hereof.

(f) The Company and its Subsidiaries and any Allied Enterprises may make such provisions as they may deem appropriate for the withholding of any taxes which they determine they are required to withhold in connection with any Award. Without limiting the foregoing, the Committee may, subject to such terms and conditions as it may impose, permit or require any withholding tax obligation arising in connection with any Award or the grant, exercise, vesting, distribution or payment of any Award, up to the minimum required federal, state and local withholding taxes, including payroll taxes, to be satisfied in whole or in part, with or without the consent of the Service Provider or other rightful holder of the Award, by having the Company withhold all or any part of the shares of Common Stock that vest or would otherwise be issued or distributed at such time. Any shares so withheld shall be valued at their Fair Market Value on the date of such withholding.

(g) Nothing in this Plan is intended to be a substitute for, or shall preclude or limit the establishment or continuation of, any other plan,

practice or arrangement for the payment of compensation or fringe benefits to directors, officers, employees, consultants or Service Providers generally, or to any class or group of such persons, which the Company or any Subsidiary now has or may hereafter lawfully put into effect, including, without limitation, any incentive compensation, retirement, pension, group insurance, stock purchase, stock bonus or stock option plan. A Service Provider may be granted an Award whether or not he is eligible to receive similar or dissimilar incentive compensation under any other plan or arrangement of the Company.

(h) The Company's obligation to issue shares of Common Stock or to pay money in respect of any Award shall be subject to the condition that such issuance or payment would not impair the Company's capital or constitute a breach of or cause the Company to be in violation of any covenant, warranty or representation made by the Company in any credit agreement to which the Company is a party before the date of grant of such Award.

(i) By accepting any benefits under the Plan, each Service Provider, and each person claiming under or through him, shall be conclusively deemed to have indicated his acceptance and ratification of, and consent to, all provisions of the Plan and any action or decision under the Plan by the Company, its agents and employees, and the Board of Directors and the Committee.

(j) The validity, construction, interpretation and administration of the Plan and of any determinations or decisions made thereunder, and the rights of all persons having or claiming to have any interest therein or thereunder, shall be governed by, and determined exclusively in accordance with, the laws of the State of Delaware, but without giving effect to the principles of conflicts of laws thereof. Without limiting the generality of the foregoing, the period within which any action arising under or in connection with the Plan must be commenced, shall be governed by the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof, irrespective of the place where the act or omission complained of took place and of the residence of any party to such action and irrespective of the place where the action may be brought. A Service Provider's acceptance of any Award shall constitute his irrevocable and unconditional waiver of the right to a jury trial in any action or proceeding concerning the Award, the Plan or any rights or obligations of the Service Provider or the Company under or with respect to the Award or the Plan.

(k) The use of the masculine gender shall also include within its meaning the feminine. The use of the singular shall include within its meaning the plural and vice versa.

14. Amendment and Termination. Subject to any applicable shareholder approval requirements of Delaware or federal law,

the New York Stock Exchange or the Code, the Plan may be amended by the Board of Directors at any time and in any respect, including without limitation to permit or facilitate qualification of Options theretofore or thereafter granted (a) as Incentive Stock Options under the Code, or (b) for such other special tax treatment as may be enacted on or after the date on which the Plan is approved by the Board, provided that, without stockholder approval, no amendment shall increase the aggregate number of shares which may be issued under the Plan, or shall permit the exercise price of outstanding Options or Stock Appreciation Rights to be reduced, except as permitted by Section 7(h), Section 8(h) and Section 10 hereof. The Plan may also be terminated at any time by the Board of Directors. No amendment or termination of this Plan shall adversely affect any Award granted prior to the date of such amendment or termination without the written consent of the holder of such Award.

15. **Code Section 409A Provisions.**

(a) Notwithstanding any provision of this Plan to the contrary, (i) no "distributions" (within the meaning of Treasury Regulation section 1.409A-1(c)(3)(v)) of deferred compensation that is subject to Section 409A of the Code may be made pursuant to this Plan to a "specified employee" (within the meaning of Treasury Regulation section 1.409A-1(i)) (" Specified Employee ") due to a separation from service as defined in Treasury Regulation section 1.409A-1(h) (" Separation from Service ") before the date that is six months after the date of such Specified Employee's Separation from Service (or, if earlier than the end of the six month period, the date of his or her death); and (ii) any distribution that, but for the preceding clause (i), would be made before the date that is six months after the date of the Specified Employee's Separation from Service shall be paid on the first day of the seventh month following the date of his or her Separation from Service (or, if earlier, within 14 days after the date of his or her death). For the avoidance of doubt, the preceding sentence shall apply to any amount or benefit (and only to any amount or benefit) to be paid or provided pursuant to this Plan to which Code Section 409A(a)(2)(B)(i) (relating to Specified Employees) applies, and shall not apply to any amount or benefit to be paid or provided pursuant to this Plan if and to the extent that such amount or benefit is not subject to Section 409A of the Code for any reason, including, without limitation, Treasury Regulation section 1.409A-1(a)(5) (relating to welfare benefit plans), Treasury Regulation section 1.409A-1(b)(4) (relating to short-term deferrals), Treasury Regulation section 1.409A-1(b)(9) (relating to separation pay plans), or the "grandfather" rules incorporated in Treasury Regulation section 1.409A-6.

(b) If at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, a person who participates in or has any legally binding right, contingent or otherwise, under this Plan (a " Participant "), is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code section 416(i)(5)), then the Participant shall be treated as a Specified Employee for purposes of Section 15(a) above for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board of Directors or the Committee at any time prescribes a different method of identifying service providers who will be subject to the six month delay required by Section 409A(a)(2)(B)(i) of the Code (the " Six Month Delay ") in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a " Different

Identification Method ") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) or the transition rules and official guidance under Code Section 409A (a " Different Election "), in which case whether the Participant shall be treated as a Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board or Committee. By participating or continuing to

participate in this Plan or accepting any legally binding right under this Plan, the Participant irrevocably (i) consents to any such Different Identification Method that the Board or Committee may prescribe at any time and any such Different Election that the Board or Committee may make at any time for purposes of identifying the service providers who will be subject to the Six Month Delay with respect to payments under this Plan, and (ii) agrees that the Participant's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (iii) waives any right he or she may have to consent to the Different Identification Method or Different Election in question if for any reason the Participant's consent to such Different Identification Method or Different Election is not legally effective.

(c) If a Participant has any right under this Plan to "a series of installment payments that is not a life annuity" (within the meaning of Treasury Regulation section 1.409A-2(b)(2)(iii)), then such right shall be treated as a right to a series of separate payments within the meaning of Treasury Regulation section 1.409A-2(b)(2)(iii), in order to maximize the payments (if any) that may be excluded from Section 409A of the Code pursuant to Treasury Regulation section 1.409A-1(b)(4) (relating to short-term deferrals) or Treasury Regulation section 1.409A-1(b)(9)(iii) (relating to payments due to involuntary separation from service or participation in a window program).

(d) Any compensation that may be paid or provided pursuant to this Plan is intended to qualify for an exclusion from Section 409A of the Code or to comply with Section 409A of the Code, so that none of such compensation will be includible in the Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code. This Plan shall be administered, interpreted and construed to carry out such intention, and any provision of this Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any compensation that may be paid or provided pursuant to this Plan will not be includible in the Participant's federal gross income pursuant to Section 409A(a)(1)(A) of the Code, nor does the Company make any other representation, warranty or guaranty to the Participant as to the tax consequences of this Plan or of participation in this Plan.

***

BARNES GROUP INC.

EXERCISE OF AUTHORITY
RELATING TO STOCK AND INCENTIVE AWARD PLAN

WHEREAS, on July 24, 2008 the Board of Directors of Barnes Group Inc. (the " Company ") authorized, empowered and directed the Chairman of the Compensation and Management Development Committee of the Board of Directors of the Company (the " Committee ") to amend the Company's compensation arrangements, including but not limited to the Barnes Group Inc. Stock and Incentive Award Plan (the " Stock Plan "), before January 1, 2009 in any respect that the Chairman of the Committee (the " Chairman ") determined in his discretion to be necessary, advisable or expedient to plan for, respond to, comply with or reflect Section 409A of the Internal Revenue Code, the Treasury Regulations thereunder and formal and informal Treasury Department and Internal Revenue Service guidance relating thereto (collectively, " Section 409A "); and

WHEREAS, on December 31, 2008 the Chairman amended and restated the Stock Plan pursuant to the authority described above; and WHEREAS, on July 24, 2008 the Board of Directors of the Company (the " Board ") also (a) authorized the Senior Vice President, General Counsel and Secretary of the Company, in relevant part, to make such changes and adopt such additional amendments to any compensation arrangement in connection with an amendment approved by the Chairman pursuant to the authority that was delegated to the Chairman by the Board on that date as the Senior Vice President, General Counsel and Secretary of the Company may determine in her discretion to be necessary, appropriate or expedient to correct mistakes and defects, and carry out the decisions and intentions of the Chairman and the purposes and intentions of the Section 409A-related resolutions adopted by the Board on that date, and (b) directed that any such changes so made and additional amendments so adopted by the Senior Vice President, General Counsel and Secretary of the Company shall have the same force and effect that they would have if they were duly adopted by the Board at a meeting called and held for that purpose; and

WHEREAS, the undersigned has determined that the Stock Plan as amended and restated by the Chairman on December 31, 2008 contains a mistake that should be corrected as of that date, the mistake being that Section 4(a)(i) states in relevant part that the maximum aggregate number of shares of Common Stock which may be issued pursuant to Awards is 950,000 shares of Common Stock, and does not reflect that the maximum aggregate number of shares of Common Stock which may be issued pursuant to Awards was increased by the stockholders of the Company on April 20, 2006 to 1,900,000 shares of Common Stock; and

WHEREAS, the undersigned has determined (a) that the aforementioned mistake was an inadvertent scrivener's error, (b) that, as evidenced by the marked copy of the Stock Plan ("Attachment 11 - Marked Copy") and the memorandum entitled "Summary

of 409A Changes to Plans and Agreements" that were sent to the Chairman with the amended and restated Stock Plan on December 27, 2008 by Robert Salwen, Esq. (copies of which are attached hereto), there was no intention on the part of the Chairman to reduce or otherwise change the maximum aggregate number of shares of Common Stock which may be issued pursuant to Awards under the Stock Plan, and (c) that reducing or otherwise changing the maximum aggregate number of shares of Common Stock which may be issued pursuant to Awards under the Stock Plan would not have carried out the purposes or the intentions of the Section 409A-related resolutions that were adopted by the Board on July 24, 2008;

NOW, THEREFORE, pursuant to the authority that was conferred upon me by the Board on July 24, 2008, I hereby make the following change to the Stock Plan as amended and restated by the Chairman on December 31, 2008: in Section 4(a)(i), the number "950,000" is changed to "1,900,000". The foregoing change shall be effective as of December 31, 2008.

Signed:

/s/ Signe S. Gates Signe S. Gates
Senior Vice President, General Counsel and Secretary

Date signed: March 3, 2009

Amendment 2010-1 to the
Barnes Group Inc. Stock and Incentive Award Plan

Section 2(p) of the Barnes Group Inc. Stock and Incentive Award Plan, as amended March 15, 2010, is hereby restated in its entirety to read as follows:

"(p) 'Fair Market Value' on a particular date means as follows:

(i) If the principal market for the Common Stock is a national securities exchange, the last reported sale price per share of Common Stock during regular trading hours on such date as reported by Reuters or another source designated by the Committee; or

(ii) If the principal market for the Common Stock is not a national securities exchange, the last reported sale price per share of Common Stock during regular trading hours on such date in the over-the-counter market, as reported by the NASDAQ OTC Bulletin Board, the National Quotation Bureau or such other system then providing quotations with regard to trades in the Common Stock or, if on such date the Common Stock is publicly traded but not quoted by any such system, the last reported sale price per share of Common Stock during regular trading hours such date as furnished by a professional market maker making a market in the Common Stock; or

(iii) If in (i) or (ii) above, as applicable, there were no sales on such date reported as provided above, the last reported sale price per share of Common Stock during regular trading hours on the most recent prior day for which sales were so reported.

If the foregoing method of determining fair market value should be inconsistent with Section 409A, Section 422, Section 162(m)(4)(C) or any other provision of the Code, then, with respect to Awards (including in particular but not limited to Incentive Stock Options) and transactions that are intended by the Committee to satisfy Section 409A, Section 422, Section 162(m)(4)(C) or any other provision of the Code, 'Fair Market Value' shall be determined by the Committee in a manner consistent with Section 409A, Section 422, Section 162(m)(4)(C) or such other provision of the Code and shall mean the value as so determined."

Date of Approval by the Board of Directors: December 9, 2010

BARNES GROUP INC.

STOCK AND INCENTIVE AWARD PLAN RESTRICTED STOCK UNIT SUMMARY OF GRANT

For Directors

Barnes Group Inc. , a Delaware corporation (the "Company"), under the Barnes Group Inc. Stock and Incentive Award Plan, as amended (the "Plan"), hereby grants to the individual named below ("You" or "Grantee") this Restricted Stock Unit Award (the "Grant"), representing the number of restricted stock units set forth below (each a "Restricted Stock Unit"). This Grant entitles You to receive, without payment to the Company and at the applicable time or times set forth below, a number of shares of Common Stock equal to the number of Restricted Stock Units listed below that vest subject to this Restricted Stock Unit Summary of Grant (this "Summary of Grant"), and the Restricted Stock Unit Agreement attached as Exhibit A (the "Restricted Stock Unit Agreement") and the Plan, both of which are incorporated herein by reference and made part hereof. The Grant also entitles You to be paid Dividend Equivalents as set forth in the Restricted Stock Unit Agreement. Unless otherwise defined, capitalized terms used in this Summary of Grant and the Restricted Stock Agreement have the meanings set forth in the Plan.

Grantee: [___]

Grant Date: FEBRUARY 8, 2012

Number of Restricted Stock Units and Vesting Schedule:

[___] Restricted Stock Units. The Restricted Stock Units will vest 100% on the anniversary of the Grant Date, as follows:

No. of Restricted Stock Units	Vesting Date
	FEBRUARY 8, 2013

Except as provided otherwise in the Restricted Stock Unit Agreement, the Restricted Stock Units will vest in accordance with the foregoing vesting schedule if You remain in continued service with the Company through the applicable vesting date.

Grant Acceptance:

You agree to be bound by the Plan, the Restricted Stock Unit Agreement and this Summary of Grant by electronically acknowledging and accepting the Grant following the date of the Company's electronic or other written notification to You of the Grant. You accept as

binding, conclusive and final all decisions or interpretations of the Committee upon any questions arising under the Plan, this Summary of Grant or the Restricted Stock Unit Agreement. In no event do You acquire any rights to the Grant unless You electronically accept, no later than 60 days after the Grant Date, this Summary of Grant and the attached Restricted Stock Unit Grant Agreement.

You acknowledge that the Plan and the Plan prospectus are available as part of the online grant package with E*Trade and Barnes Net at http:// barnesnet.barnesgrp.net/Legal/default.aspx , respectively, and that paper copies of the Plan and the Plan prospectus are available upon request by contacting the Manager, Stockholder Relations, Monique B. Marchetti, at mmarchetti@bginc.com or 860-973-2185.

EXHIBIT A

RESTRICTED STOCK UNIT AGREEMENT FOR DIRECTORS

Under the provisions of the Barnes Group Inc. Stock and Incentive Award Plan, as amended through December 10, 2010, (the "Plan"), the Compensation and Management Development Committee of the Company's Board of Directors (the "Committee") has authorized the execution of this Agreement. Capitalized terms used in this Agreement and not otherwise defined herein will have the same meaning as provided for in the Plan or Summary of Grant, as applicable.

NOW, THEREFORE, in consideration of the agreements of each, and for other good and valuable consideration, the parties agree as follows:

1. Dividend Equivalents . On each date on which a dividend (other than a dividend paid in Common Stock, which is subject to the adjustment provided in Section 10 of the Plan) is paid to the holders of Common Stock, the record date of which falls during the period commencing on the Grant Date and ending on the first date on which all of the Restricted Stock Units have either been forfeited pursuant to this Agreement or paid pursuant to this Agreement as in effect from time to time on or after the Grant Date (a "Dividend Payment Date"), the Company will pay You an amount of money ("Dividend Equivalents") determined by multiplying (a) the number of the Restricted Stock Units (if any) that were neither forfeited nor paid on or before such dividend record date, times (b) the dividend per share paid on such Dividend Payment Date. However, if the dividend is paid in property other than cash, the amount of money to be paid to You in respect of such dividend will be determined by multiplying (i) the number of the Restricted Stock Units (if any) that were neither forfeited nor paid on or before such dividend record date, times (ii) the fair market value on such Dividend Payment Date of the property that was paid per share of Common Stock as a dividend on such Dividend Payment Date. The fair market value of the property that was paid will be determined by the Committee in its sole and absolute discretion.

For the avoidance of doubt: Your entitlement to be paid Dividend Equivalents pursuant to the first or second sentence of this Section is contingent on Your not having a "Separation from Service" on or before the record date of such Dividend Equivalents or the applicable vesting date of the Restricted Stock Units to which the Dividend Equivalents relate.

2. Forfeiture of Restricted Stock Units . Notwithstanding the vesting schedule contained in the Restricted Stock Unit Summary of Grant, the vesting schedule may change under one of the following conditions:

(a) Voluntary or Involuntary Termination . If You have a Separation from Service for any reason other than (i) death, (ii) Disability, or (iii) Separation from Service by

Retirement, any Restricted Stock Units that have not become non-forfeitable on or before the date on which You have a Separation from Service will be forfeited as of that date, and all of Your rights and interest in and to such forfeited

Restricted Stock Units will thereupon terminate without payment of consideration by the Company. No Grant or other amount payable to You will be reduced by the amount of any Dividend Equivalents previously paid to You with

respect to the forfeited Restricted Stock Units.

(b) Death or Disability . If You have a Separation from Service on account of Your death or incur a Disability (and irrespective of whether a Separation from Service occurs at the time of such Disability), then any Restricted Stock Units that did not become non-forfeitable before the date on which Your death or Disability occurs will become non-forfeitable on that date.

(c) Retirement . If You have a Separation from Service by Retirement (so long as there is no Cause), then the portion of any Restricted Stock Units that did not become non-forfeitable before the date of Separation from Service by Retirement will become non-forfeitable on that date.

(d) Change in Control . If You did not have a Separation from Service before the date, if any, on which a "change in control event" occurs (within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i) & (ii)), then, any Restricted Stock Units that did not become non-forfeitable before the change in control event will become non- forfeitable on the date of the change in control event.

(e) Acceptance . By electronically accepting this Grant, You irrevocably consent to any forfeiture of Restricted Stock Units required or authorized by this Agreement.

3. Issuance of Shares . If a Restricted Stock Unit becomes non-forfeitable pursuant to the terms of this Agreement, a share of Common Stock will be credited to a brokerage account established by the Company in Your name (or, in the event of Your death, in the name of Your Beneficiary) in payment of such Restricted Stock Unit on the date on which the Restricted Stock Unit becomes non-forfeitable, or as soon as practicable thereafter, but not later than 60 days thereafter (which date during that 61 day period will be determined by the Company). All shares of Common Stock issued under this Agreement will be duly authorized, validly issued, fully paid and non-assessable.

4. Code Section 409A . Notwithstanding the preceding provisions of this Section or any other provision of this Agreement to the contrary, if You are a specified employee (within the meaning of Treasury Regulation Section 1.409A-1(i)) on the date of a Separation from Service, any payment to be made pursuant to this Agreement that constitutes deferred compensation that is subject to Section 409A of the Code and that is to be paid due to a Separation from Service during the 6 month period following a Separation from Service (a "Delayed Payment") will not be paid during that 6 month period but will instead be accumulated and paid on the first day of the seventh month following the date of the Separation from Service (or, if earlier, within 14

days after the death of You)(the "Delayed Payment Date"). For the avoidance of doubt, the preceding sentence will apply to any payment (and only to any payment) pursuant to this Agreement to which Code Section 409A(a)(2)(B)(i) (relating to specified employees) applies, and will not apply to any payment that is not subject to Code Section 409A as a result of Treasury Regulation Section 1.409A-1(b)(4) (relating to short-term deferrals) or otherwise. Also for the avoidance of doubt, any Delayed Payment will accrue Dividend Equivalents until it is paid pursuant to the preceding provisions of this Section, which Dividend Equivalents will be accumulated and deemed reinvested in additional Restricted Stock Units at Fair Market Value on the Dividend Payment Date of such Dividend Equivalents (which additional Restricted Stock Units may also accrue Dividend Equivalents) and which will be paid (in money) on the Delayed Payment Date based on the Fair Market Value of such additional Restricted Stock Units on the Delayed Payment Date. Your right to any series of payments of Restricted Stock Units or Dividend Equivalents pursuant to this Agreement will be treated as a right to a series of separate payments within the meaning of Treasury Regulation Section 1.409A-2(b)(2)(iii), including without limitation for purposes of the short-term deferral rule set forth in Treasury Regulation Section 1.409A-1(b)(4).

5. Your Commitments; Recoupment .

(a) If You, at any time before the Grant terminates: (i) directly or indirectly, whether as an owner, partner, shareholder, consultant, agent, employee, investor or in any other capacity, accept employment by, render services for or otherwise assist any other business which competes with the business conducted by the Company or any of its Subsidiaries in which You worked during Your last 2 years with the Company or any of its Subsidiaries; (ii) directly or indirectly, hire or solicit or arrange for the hiring or solicitation of any employee of the Company or any of its Subsidiaries, or encourage any such employee to leave such

employment; (iii) use, disclose, misappropriate or transfer confidential or proprietary information concerning the Company or any of its Subsidiaries (except as required by Your work responsibilities with the Company or any of its Subsidiaries); or (iv) are convicted of a crime against the Company or any of its Subsidiaries; or (v) engage in any activity in violation of the policies of the Company or any of its Subsidiaries, including without limitation the Company's Code of Business Ethics and Conduct, or, at any time, engage in conduct adverse to the best interests of the Company or any of its Subsidiaries; then should any of the foregoing events occur, the Grant will be canceled, unless the Committee, in its sole discretion, elects not to cancel such Grant. The obligations in this Section are in addition to any other agreements related to non-competition, non- solicitation and preservation of Company confidential and proprietary information entered into between You and the Company, and nothing herein is intended to waive, modify, alter or amend the terms of any such other agreement.

(b) You agree that You will be subject to any compensation, clawback and recoupment policies that may be applicable to You, as in effect from time to time and as approved by the Board or the Committee, whether or not approved before or after the Grant Date.

6. Restrictions on Grant . In no event may (a) You sell, exchange, transfer, assign, pledge, hypothecate, mortgage or dispose of the Grant or any interest therein, nor (b) the Grant or any interest therein be subject to anticipation, attachment, garnishment, levy, encumbrance or charge of any nature, voluntary or involuntary, by operation of law or otherwise and any attempt to do so, whether voluntary or involuntary, will be null and void and no other party will obtain any rights to or interest in the Grant. You may designate a Beneficiary to receive the Grant in the event of Your death in accordance with Section 2(d) of the Plan. Any Beneficiary will receive the Grant subject to all of the terms, conditions and restrictions set forth in this Agreement, including but not limited to the forfeiture provisions set forth in this Agreement.

7. Taxes and Withholding . The Committee may cause to be made, as a condition precedent to any payment or transfer of stock hereunder, appropriate arrangements for the withholding of any Federal, state or local taxes. If applicable, the Company will have the right, in its discretion, to deduct from any Dividend Equivalents payable pursuant to this Agreement, and from any shares to be issued pursuant to this Agreement, cash and/or shares, valued at Fair Market Value on the date of payment, in an amount necessary to satisfy all Federal, state and local taxes required by law to be withheld with respect to such Dividend Equivalents, cash and/or shares. You may be required to pay to the Company, prior to delivery of certificates representing such shares and prior to such shares being credited to a book entry account in Your name, the amount of any such taxes. The Company will accept whole shares of Common Stock of equivalent Fair Market Value in payment of the Company's minimum statutory withholding tax obligations if You elect to make payment in shares.

8. Compliance with Law . The Company will make reasonable efforts to comply with all applicable federal and state securities laws. However, no shares or other securities will be issued pursuant to this Agreement if their issuance would result in a violation of any such law. If at any time the Committee determines, in its discretion, that the listing, registration or qualification of any shares subject to this Grant upon any securities exchange or under any state or Federal law, or the consent or approval of any government regulatory body, is necessary or desirable as a condition of,

or in connection with, the granting of this Grant or the issue of shares hereunder, no rights under the Grant may be exercised and shares of Common Stock may not be issued pursuant to the Grant, in whole or in part, unless such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Committee and any delay will in no way affect the dates of vesting or forfeiture of the Grant.

9. Amendments; Integrated Agreement . This Agreement may only be amended in a writing signed by You and an officer of the Company duly authorized to do so. This Agreement contains the entire agreement of the parties relating to the subject matter of this Agreement and supersedes and replaces all prior agreements and understandings with respect to such subject matter, and the parties have made no agreements, representations or warranties relating to the subject matter of this Agreement which are not set forth herein.

10. Relation to Plan; Interpretation . The Grant is granted under the Plan, and the Grant and this Agreement are each subject to the terms and conditions of the Plan, which is

incorporated in this Agreement by reference. In the event of any inconsistent provisions between this Agreement and the Plan, the provisions of the Plan control. References to Sections are to Sections of this Agreement unless otherwise noted. The titles to Sections of this Agreement are intended solely for convenience and no provision of this Agreement is to be construed by reference to the title of any Section.

11. Notices . Any notice hereunder by You will be given to the Senior Vice President Human Resources and the

Corporate Secretary in writing and such notice and any payment by You will be deemed duly given or made only upon receipt by the Corporate Secretary at Barnes Group Inc., 123 Main Street, Bristol, Connecticut 06010, U.S.A., or at such other address as the Company may designate by notice to You. Any notice to You will be in writing and will be deemed duly given if delivered to You in person or mailed or otherwise delivered to You at such address as You may have on file with the Company from time to time.

12. Interpretation and Disputes . This Agreement will be interpreted and construed, and all determinations will be made, by the Committee, and any such interpretation, construction or determination will be final, binding and conclusive on the Company and You. In the event there is any inconsistency between the provisions of this Agreement and the Plan, the provisions of the Plan will govern.

Any claim, demand or controversy arising from such interpretation, construction or determination by the Committee shall be submitted first to a mediator in accordance with the rules of the American Arbitration Association ("AAA") by submitting a mediation request to the Administrator within 30 days of the date of the Committee's interpretation or construction. The mediation process shall conclude upon the earlier of: (i) the resolution of the dispute; (ii) a determination by either the mediator or one or more of the parties that all settlement possibilities have been exhausted and there is no possibility of resolution; or (iii) 30 days have passed since the filing of a request to mediate with the AAA. A party who has previously submitted a dispute to mediation, and which dispute has not been resolved, may submit such dispute to binding arbitration pursuant to the rules of the AAA. Any arbitration proceeding for such dispute must be initiated within 14 days from the date that the mediation process has concluded. The prevailing party shall recover its costs and reasonable attorney's fees incurred in such arbitration proceeding. You and the Company specifically understand and agree that the failure of a party to timely initiate a proceeding hereunder shall bar the party from any relief or other proceeding and any such dispute shall be deemed to have been finally and completely resolved. All mediation and arbitration proceedings shall be conducted in Bristol, Connecticut or such other location as the Company may determine and You agree that no objection shall be made to such jurisdiction or venue, as a forum non conveniens or otherwise. The arbitrator's authority shall be limited to resolution of the legal disputes between the parties and the arbitrator shall not have authority to modify or amend this Agreement or the Committee's interpretation or construction thereof, or abridge or enlarge rights available under applicable law. Any

court with jurisdiction over the parties may enforce any award made hereunder.

13. General .

(a) Nothing in this Agreement confers upon You any right to continue in the employ or other service of the Company or any Subsidiary, or limit in any manner the right of the Company, its stockholders or any Subsidiary to terminate Your employment or adjust Your compensation.

(b) You have no rights as a stockholder with respect to any shares that may be issued pursuant to this Agreement until the date of issuance to You of a stock certificate for such shares or the date of a credit for such shares in a brokerage account in Your name.

(c) This Agreement is binding upon the successors and assigns of the Company and upon Your Beneficiary, estate, legal representatives, legatees and heirs.

(d) This Agreement is governed by and construed in accordance with the laws of the State of Delaware, without regard to the principles of conflicts of laws thereof.

(e) If applicable, any shares that may be earned pursuant to this Agreement are intended to qualify as "performance-based compensation" within the meaning of Section 162(m)(4)(C) of the Code. Any provision of this Agreement that would prevent any such shares from so qualifying will be administered, interpreted and construed to carry out such intention, and any provision that cannot be so administered, interpreted and construed will to that extent be disregarded.

14. Definitions .

(a) "Cause" means (i) Your willful and continued failure to substantially perform Your duties with the Company (other than any such failure resulting from the Your incapacity due to physical or mental illness) or (ii) Your willful engaging in conduct which is demonstrably and materially injurious to the Company or its Subsidiaries, monetarily or otherwise.

(b) “Disability” means “disability” as set forth in Treasury Regulation Section 1.409A-3(i)(4)(i).

(c) “Separation from Service” means ceasing to be a member of the Board which constitutes a “separation from service with the employer” within the meaning of Treasury Regulation Section 1.409A-1(h), where the “employer” means the Company and all corporations and trades or businesses with which the Company would be considered a single employer under Section 414(b) or Section 414(c) of the Code (as determined in accordance with the first sentence of Treasury Regulation Section 1.409A-1(h)(3)).

(d) “Separation from Service by Retirement” means a Separation from Service from the Company in accordance with the Company’s corporate governance guidelines.

Form of

NON-QUALIFIED STOCK OPTION AGREEMENT

For employees grade 21 and up PURSUANT TO THE BARNES GROUP INC.

STOCK AND INCENTIVE AWARD PLAN

as amended effective December 31, 2008

THIS DOCUMENT CONSTITUTES PART OF A PROSPECTUS COVERING SECURITIES THAT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933.

OPTION AGREEMENT executed in duplicate as of February 13, 2008 (the " Grant Date "), between Barnes Group Inc., a Delaware corporation, (the " Company ") and [**NAME OF OPTIONEE**], an employee of the Company or of one of its Subsidiaries (the " Optionee "), as amended effective December 31, 2008.

In accordance with the provisions of the Barnes Group Inc. Stock and Incentive Award Plan as amended through December 31, 2008 or such later date(s), if any, to which the December 31, 2008 documentary compliance date set forth in paragraph .01 of section 3 of IRS Notice 2006- 79 as modified by section 3.01(B)(1) of IRS Notice 2007-86 is extended, but excluding any amendment of such Plan that would constitute a modification or extension of an option within the meaning of Treasury Regulation section 1.409A-1(b)(5)(v) (the " Plan "), the Compensation and Management Development Committee of the Company's Board of Directors (the " Committee ") has authorized the execution of this Agreement. Capitalized terms used in this Agreement and not otherwise defined herein shall have the same meaning as provided for in the Plan.

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth and for other good and valuable consideration, the parties hereto agree as follows:

1. Grant of Option . Subject to the terms and conditions of the Plan and this Agreement, the Company hereby grants to the Optionee the option to purchase **[# OF OPTIONS GRANTED]** shares of Common Stock (the " Option ").

2. Purchase Price . The purchase price of the shares of Common Stock covered by this Option shall be $ per share which is one hundred percent (100%) of the Fair Market Value of the Common Stock on the Grant Date (the " Purchase Price ").

3. Exercise of Option .

   (a) The Option shall vest (i.e., become exercisable) at the rate of 33.3334% of the shares covered by the Option on August 13, 2009 and 33.3333% of such shares on each of August 13, 2010 and August 13, 2011. The number of shares with respect to which the Option vests on any date shall be rounded to the nearest whole Option; provided, that the aggregate number of shares with respect to which the Option vests shall not exceed the number of shares set forth in Section 1 hereof.

   (b) Subject to Section 4, any portion of the Option which has not vested pursuant to Section 3(a) before the date, if any, on which a Change in Control occurs shall vest on that date. However, if a Change in Control occurs less than six months after the Grant Date and the Committee requests in writing before the date of such Change in Control that the Optionee agree in writing to remain in the employment of the Company through the date which is six months after the Grant Date with substantially the same title, duties, authority, reporting relationships, compensation and indemnification as on the day immediately preceding the Change in Control, then in that event any portion of the Option which has not vested pursuant to Section 3(a) before the date on which such Change in Control occurs shall vest pursuant to this Section 3(b) only if the Optionee executes such written agreement and delivers it to the Company not later than one week after the date of such Change in Control, in which case such portion of the Option shall vest when the Optionee delivers such written agreement or, if later, on the date on which such Change in Control occurs.

4. Termination . The Option shall terminate 10 years after the Grant Date of this Option (the " Termination Date ") unless it terminates earlier under the following conditions:

   (a) If the Optionee's employment terminates for any reason other than (i) death, (ii) Disability (as hereafter defined), or (iii) retirement on or after the first anniversary of the Grant Date at age 62 or later with a minimum of five (5) full years of service with the Company and/or its Subsidiaries (" Retirement "), or (iv) "cause" (as hereinafter defined), that portion of the Option which is exercisable as of the date of such termination of employment shall terminate on the date of such termination of employment (or one (1) year after such

termination of employment if the Optionee's employment was terminated by the Company and/or its Subsidiaries without "cause"). That portion of the Option which has not yet become exercisable as of the date of such termination of employment shall be forfeited as of such date.

   (b) If the Optionee's employment terminates as a result of death or Disability, that portion of the Option which has not yet become exercisable shall

become immediately exercisable as of the date of such termination of employment and the Option shall terminate one (1) year after the date of such termination of employment. For purposes of this Agreement, " Disability " shall have the meaning set forth in the Company's long-term disability plan as in effect from time to time (or, if that plan is not in effect at the time in question, as it was last in effect).

   (c) If the Optionee terminates employment by reason of Retirement, that portion of the Option which has not yet become exercisable shall continue to

become exercisable as if the Optionee continued as an employee until the Option terminates pursuant to this sentence or Section 4(e) (whichever applies), provided that the Optionee executes a covenant not to compete in a form acceptable to the Committee at the time of Retirement, and complies with the terms of said covenant not to compete, and the Option shall terminate one (1) year after the date of such termination of employment (or five (5) years after such termination of employment if the Optionee executes a release of claims in a form acceptable to the Committee at the time of Retirement).

(d) Notwithstanding the preceding paragraphs, if the Optionee's employment is terminated for "cause" (even if such termination would otherwise qualify as Retirement), all of the outstanding Options shall terminate on the date of such termination of employment. For purposes of this Agreement, " cause " shall mean (i) the willful and continued failure by the Optionee to substantially perform the Optionee's duties with the Company (other than any such failure resulting from the Optionee's incapacity due to physical or mental illness) or (ii) the willful engaging by the Optionee in conduct which is demonstrably and materially injurious to the Company or its Subsidiaries, monetarily or otherwise.

(e) Notwithstanding any other provision of this Agreement, no portion of the Option may be exercised after the Termination Date.

5. Method of Exercising Option . This Option shall be exercised in whole or in part by delivery of written notice to the stock plan administrator of the Company (the " Administrator "), in a form satisfactory to the Administrator, specifying the number of shares which will be purchased and the date on which the shares will be purchased (the " Purchase Date "). The notice shall be accompanied by full payment for the shares to be purchased.

If the Optionee elects to pay the Purchase Price in whole or in part through proceeds generated by the sale of stock acquired under this Option through a broker under a cashless exercise arrangement referred to in Section 7(b)(iii) of the Plan and approved by the Committee, that part of the Purchase Price to be paid with proceeds of such sale may be paid pursuant to the arrangement approved by the Committee.

Payment for shares being purchased pursuant to the Option may be in whole or in part with shares of Common Stock by either actual delivery of shares or by attestation, provided that such shares have been owned by the Optionee for at least six months or were acquired on the open market. The value of the shares shall be their Fair Market Value on the Purchase Date. Stock certificates representing any shares being actually delivered as payment must be delivered to the Administrator on the Purchase Date.

In connection with the exercise of the Option, the Common Stock to be issued shall be credited to a book entry account in the name of the Optionee. In lieu of crediting such shares to a book entry account, at the election and expense of the Optionee, stock certificates representing shares purchased will be delivered to the Optionee as soon as administratively practicable after the exercise of the Option.

6. Commitments of the Optionee . If the Optionee, at any time before the Option terminates: (a) directly or indirectly, whether as an owner, partner, shareholder, consultant, agent, employee, investor or in any other capacity, accepts employment by, renders services for or otherwise assists any other business which competes with the business conducted by the Company or any of its Subsidiaries in which the Optionee has worked during the Optionee's last two years with the Company or any of its Subsidiaries; (b) directly or indirectly, hires or solicits or arranges for the hiring or solicitation of any employee of the Company or any of its Subsidiaries, or encourages any such employee to leave such employment; (c) uses, discloses, misappropriates or transfers confidential or proprietary information concerning the Company or any of its Subsidiaries (except as required by the Optionee's work responsibilities with the Company or any of its Subsidiaries); or (d) is convicted of a crime against the Company or any of its Subsidiaries; or (e) engages in any activity in violation of the policies of the Company or any of its Subsidiaries, including without limitation the Company's Code of Business Ethics and Conduct, or, at any time, engages in conduct adverse to the best interests of the Company or any of its Subsidiaries; then should any of the foregoing events occur, the Option shall be canceled, unless the Committee, in its sole discretion, elects not to cancel such Option. The obligations in this Section 6 are in addition to any other agreements related to non-competition, non-solicitation and preservation of Company confidential and proprietary information entered into between the Optionee and the Company, and nothing herein is intended to waive, modify, alter or amend the terms of any such other agreement.

7. Non- Transferability . This Option shall not be transferable by the Optionee otherwise than to a Beneficiary, and during the lifetime of the Optionee, this Option may be exercised only by the Optionee.

8. Withholding of Taxes . The Committee may cause to be made, as a condition precedent to any payment or transfer of stock hereunder, appropriate arrangements for the withholding of any Federal, state or local taxes. The Company shall accept

whole shares of Stock of equivalent Fair Market Value in payment of the Company's minimum statutory withholding tax obligations if the Optionee elects to make payment in such manner.

9. No Implied Promises . By accepting the Option and executing this Agreement, the Optionee recognizes and agrees that the Company and its Subsidiaries, and each of their officers, directors, agents and employees, including but not limited to the Board of Directors of the Company and the Committee, in their oversight or conduct of the business and affairs of the Company and its Subsidiaries, may in good faith cause the Company and/or a Subsidiary to act or omit to act in a manner that will, directly or indirectly, prevent all or part of the Option from vesting or cause all or part of the Option to terminate. No provision of this Agreement shall be interpreted or construed to impose any liability upon the Company, any Subsidiary, or any officer, director, agent or employee of the Company or any Subsidiary, or the Board or the Committee, for any failure to vest or termination of the Option that may result, directly or indirectly, from any such action or omission, or shall be interpreted or construed to impose any obligation on the part of any such entity or person to refrain from any such action or omission.

10. Notices . Any notice hereunder by the Optionee shall be given to the Administrator in writing and such notice and any payment by the Optionee hereunder shall be deemed duly given or made only upon receipt by the Administrator at Barnes Group Inc., P. O. Box 489, 123 Main Street, Bristol, Connecticut 06011-0489, U.S.A., or at such other address as the Company may designate by notice to the Optionee. Any notice to the Optionee shall be in writing and shall be deemed duly given if delivered to the Optionee in person or mailed or otherwise delivered to the Optionee at such address as the Optionee may

have on file with the Company from time to time.

11. Interpretation and Disputes . This Agreement shall be interpreted and construed by the Committee, and any such interpretation or construction shall be binding and conclusive on the Company and the Optionee. In the event there is any inconsistency between the provisions of this Agreement and the Plan, the provisions of the Plan shall govern.

Any claim, demand or controversy arising from such interpretation or construction by the Committee shall be submitted first to a mediator in accordance with the rules of the American Arbitration Association (" AAA ") by submitting a mediation request to the Administrator within thirty (30) days of the date of the Committee's interpretation or construction. The mediation process shall conclude upon the earlier of: (i) the resolution of the dispute; (ii) a determination by either the mediator or one or more of the parties that all settlement possibilities have been exhausted and there is no possibility of resolution; or (iii) thirty (30) days have passed since the filing of a request to mediate with the AAA. A party who has previously submitted a dispute to mediation, and which dispute has not been resolved, may submit such dispute to binding arbitration pursuant to the rules of the

AAA. Any arbitration proceeding for such dispute must be initiated within fourteen (14) days from the date that the mediation process has concluded. The prevailing party shall recover its costs and reasonable attorney's fees incurred in such arbitration proceeding. The Optionee and the Company specifically understand and agree that the failure of a party to timely initiate a proceeding hereunder shall bar the party from any relief or other proceeding and any such dispute shall be deemed to have been finally and completely resolved. All mediation and arbitration proceedings shall be conducted in Bristol, Connecticut or such other location as the Company may determine and the Optionee agrees that no objection shall be made to such jurisdiction or venue, as a *forum non conveniens* or otherwise. The arbitrator's authority shall be limited to resolution of the legal disputes between the parties and the arbitrator shall not have authority to modify or amend this Agreement or the Committee's interpretation or construction thereof, or abridge or enlarge rights available under applicable law. Any court with jurisdiction over the parties may enforce any award made hereunder.

12. General .

(a) Nothing in this Agreement shall confer upon the Optionee any right to continue in the employ or other service of the Company or any Subsidiary, or shall limit in any manner the right of the Company, its stockholders or any Subsidiary to terminate the employment or other service of the Optionee or adjust the compensation of the Optionee.

(b) The Optionee shall have no rights as a stockholder with respect to any shares that may be issued pursuant to this Agreement until the date of issuance to the Optionee of a stock certificate for such shares or the date of entry of a credit for such shares in a book entry account in the name of the Optionee.

(c) This Agreement shall be binding upon the successors and assigns of the Company and upon the Beneficiary, estate, legal representatives, legatees and heirs of the Optionee.

(d) Any waiver by a party of another party's performance of, or compliance with, the obligations under this Agreement shall not operate, or

be construed, as a waiver of any subsequent failure by such other party to perform or comply.

(e) Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction.

(f) This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the principles of conflicts of laws thereof.

(g) The Option is intended to qualify as an "Option" that is a "Non-Statutory Stock Option" as defined in the Plan, a copy of which has been or is herewith being supplied to the Optionee and the terms and conditions of which are hereby incorporated in this Agreement by reference. Any provision of the Plan to the contrary notwithstanding, no equitable adjustment or other change may be made to the Option pursuant to Section 10 of the Plan or otherwise that would cause the Option to fail to qualify as an option that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A), or that would constitute a modification of the Option under Treasury Regulation section 1.409A-1(b)(5)(v)(B). For the avoidance of doubt, and without limiting the generality of the foregoing, neither the exercise price nor the number of shares subject to the Option may be equitably adjusted pursuant to Section 10 of the Plan to reflect a stock split (including a reverse stock split) or stock dividend unless the conditions set forth in the second sentence of Treasury Regulation section 1.409A-1(b)(5)(v)(H) are satisfied such that there will be no modification of the Option under Treasury Regulation section 1.409A-1(b)(5)(v)(B).

(h) The Option is intended to qualify as an option that "does not provide for a deferral of compensation" within the meaning of Treasury Regulation section 1.409A-1(b)(5)(i)(A). The Option and this Agreement shall be administered, interpreted and construed to carry out such intention, and any provision of this Agreement that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that the Option does not provide for such a deferral of compensation, nor does the Company make any other representation, warranty or guaranty to the Optionee as to the tax consequences of the Option or this Agreement.

(i) Except as otherwise provided in Section 13 below, this Agreement may only be amended in a writing signed by the Optionee and an officer of the Company (other than the Optionee) duly authorized to do so. This Agreement contains the entire agreement of the parties relating to the subject matter of this Agreement and supersedes and replaces all prior agreements and understandings with respect to such subject matter, and the parties have made no agreements, representations or warranties relating to the subject matter of this Agreement which are not set forth herein.

13. Consent to Certain Amendments and Provisions .

(a) By executing this Agreement, the Optionee hereby irrevocably (i) authorizes the Committee or the Board of Directors of the Company (the " Board "), on or before December 31, 2008 or such later date(s), if any, to which the December 31, 2008 documentary compliance date set forth in paragraph .01 of section 3 of IRS Notice 2006-79 as modified by section 3.01(B)(1) of IRS Notice 2007-86 is hereafter extended (the " 409A Documentary Compliance Date "), to amend this Agreement and any "Prior Non-Grandfathered Compensation Arrangement" as defined in Section 13(b) below, in any respect that the Committee or the Board determines to be necessary, advisable or expedient to plan for, respond to, comply with or reflect Section 409A of the Internal Revenue Code of 1986, as amended (the " Code "), and (ii) consents in advance to any and all such amendments of this Agreement and any Prior Non-Grandfathered Compensation Arrangement, and (iii) consents in advance to any amendment of the Plan that the Board hereafter adopts on or before the 409A Documentary Compliance Date to plan for, respond to, comply with or reflect Section 409A of the Code, and (iv) agrees that the Optionee's consent to any such amendments of this Agreement, any Prior Non-Grandfathered Compensation Arrangement and the Plan shall be as effective as if such amendments were fully set forth herein, and (v) waives any right s/he may have to consent to the amendment in question if for any reason the Optionee's consent to any of the aforementioned amendments is not legally effective, and
(vi) recognizes and agrees that the Company does not represent, warrant or guarantee that any amendment of this Agreement or any Prior Non-Grandfathered Compensation Arrangement or the Plan that is made pursuant to this Section 13(a), or any Different Identification Method that the Board or Committee may prescribe or Different Election that the Board or Committee may make in accordance with Section 13(c) below, will have its intended tax effect or will enable compensation to be exempt from or comply with Section 409A of the Code, and that the Company does not make any other representation, warranty or guaranty to the Optionee as to the tax consequences of any such amendment, Different Identification Method or Different Election. For the avoidance of doubt, nothing in this Section 13(a) is intended to authorize or constitute the Optionee's consent to any amendment that would constitute a modification or extension of a stock option within the meaning of Treasury Regulation section 1.409A-1(b)(5)(v). If and to the extent that, notwithstanding the foregoing, anything herein would be interpreted or construed to authorize or constitute the Optionee's consent to any such amendment, then to that extent the authorization or consent is hereby rescinded.

(b) For purposes of Section 13(a) above, a " Prior Non- Grandfathered Compensation Arrangement " means any compensation arrangement

between the Company and the Optionee that was entered into before the Grant Date (whether or not paid in full before the Grant Date) except to the extent that the compensation payable (or paid) under such arrangement is

"grandfathered" from Section 409A of the Code (i.e., is compensation to which Section 409A of the Code does not apply, according to Treasury Regulation section 1.409A-6 or any other applicable Treasury Department guidance). In no event shall an arrangement that is grandfathered from Section 409A in the absence of this Section 13 be deemed to be a Prior Non-Grandfathered Compensation Arrangement within the meaning of Section 13(a). The Optionee recognizes and agrees that Prior Non-Grandfathered Compensation Arrangements include, but may not be limited to, (i) any stock option, restricted stock unit, performance share, performance unit or contingent dividend equivalent award that the Company granted to the Optionee after December 31, 2004 under the Plan, (ii) any restricted stock unit, performance-accelerated restricted stock unit, performance share, performance unit or contingent dividend equivalent award that the Company granted to the Optionee before December 31, 2004 (whether under the Plan or otherwise) that was outstanding and unvested on that date, and (iii) any non-qualified deferred compensation plan, such as the Company's Retirement Benefit Equalization Plan, Supplemental Executive Retirement Plan and Supplemental Senior Officer Retirement Plan, if and to the extent that the Optionee accrued benefits or vested in benefits under such plan after that date.

(c) The Optionee agrees that, if at any time during the 12-month period ending on any "specified employee identification date", which shall be December 31, the Optionee is in Salary Grade 20 or above or meets the requirements of Code section 416(i)(1)(A)(ii) or (iii) (applied in accordance with the Treasury Regulations thereunder and disregarding Code section 416(i)(5)), the Optionee shall be treated as a "Specified Employee" within the meaning of Code Section 409A and Treasury Regulation section 1.409A-1(i) (or other similar or successor provisions)(" Specified Employee ") for purposes of this Agreement and any Prior Non-Grandfathered Compensation Arrangement and any compensation arrangement that may hereafter be adopted by the Company in which the Optionee may participate (" Future Compensation Arrangement ") for the entire 12-month period beginning on the "specified employee effective date", which shall be the January 1 that immediately follows such specified employee identification date, unless the Board or Committee hereafter prescribes a different method of identifying service providers who will be subject to the six month delay required by Section 409A(a)(2)(B)(i) of the Code (the " Six Month Delay ")(a " Different Identification Method ") or elects a different specified employee identification date or specified employee effective date or makes any other election that may be made in accordance with Treasury Regulation section 1.409A-1(i) and the transition rules and official guidance under Code Section 409A (a " Different Election "), in which case whether the Optionee shall be treated as a Specified Employee shall be determined in accordance with any such Different Identification Method so prescribed and any such Different Election so made by the Board or Committee. The Optionee

hereby irrevocably (i) consents to any such Different Identification Method that the Committee or Board may hereafter prescribe and any such Different Election that the Committee or Board may hereafter make in accordance with that Treasury Regulation or otherwise in accordance with Code Section 409A and the transition rules and official guidance thereunder, for purposes of identifying the service providers who will be subject to the Six Month Delay with respect to payments under this Agreement, any Prior Non-Grandfathered Compensation Arrangement and any Future Compensation Arrangement, and (ii) agrees that the Optionee's consent to any such Different Identification Method or Different Election shall be as effective as if such Different Identification Method or Different Election were fully set forth herein, and (iii) waives any right s/he may have to consent to the Different Identification Method or Different Election in question if for any reason the Optionee's consent to such Different

Identification Method or Different Election is not legally effective.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written. BARNES GROUP INC. OPTIONEE

BY:

Senior Vice President-Human Resources **[OPTIONEE]**

Approved by the Compensation and Management Development Committee of the Board of Directors: 2/13/08

As amended effective 12/31/08

BARNES GROUP INC.

STOCK AND INCENTIVE AWARD PLAN RESTRICTED STOCK UNIT SUMMARY OF GRANT

For Directors

Barnes Group Inc. , a Delaware corporation (the "Company"), under the Barnes Group Inc. Stock and Incentive Award Plan, as amended (the "Plan"), hereby grants to the individual named below ("You" or "Grantee") this Restricted Stock Unit Award (the "Grant"), representing the number of restricted stock units set forth below (each a "Restricted Stock Unit"). This Grant entitles You to receive, without payment to the Company and at the applicable time or times set forth below, a number of shares of Common Stock equal to the number of Restricted Stock Units listed below that vest subject to this Restricted Stock Unit Summary of Grant (this "Summary of Grant"), and the Restricted Stock Unit Agreement attached as Exhibit A (the "Restricted Stock Unit Agreement") and the Plan, both of which are incorporated herein by reference and made part hereof. The Grant also entitles You to be paid Dividend Equivalents as set forth in the Restricted Stock Unit Agreement. Unless otherwise defined, capitalized terms used in this Summary of Grant and the Restricted Stock Agreement have the meanings set forth in the Plan.

Grantee: [___]
Grant Date: [___] [ ], [___]

Number of Restricted Stock Units and Vesting Schedule:

[___] Restricted Stock Units. The Restricted Stock Units will vest as to 50% on each of the first and second anniversaries of the Grant Date, as follows:

No. of Restricted Stock Units	Vesting Date
	[___] [ ], [___]
	[___] [ ], [___]

Except as provided otherwise in the Restricted Stock Unit Agreement, the Restricted Stock Units will vest in accordance with the foregoing vesting schedule if You remain in continued service with the Company through the applicable vesting date.

Grant Acceptance:

You agree to be bound by the Plan, the Restricted Stock Unit Agreement and this Summary of Grant by electronically acknowledging and accepting the Grant following the date of the Company's electronic or other written notification to You of the Grant. You accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions arising under the Plan, this Summary of Grant or the Restricted Stock Unit Agreement. In no event do You acquire any rights to the Grant unless You electronically accept, no later than 60 days after the Grant Date, this Summary of Grant and the attached Restricted Stock Unit Grant Agreement.

You acknowledge that the Plan and the Plan prospectus are available as part of the online grant package with E*Trade and Barnes Net at http:// barnesnet.barnesgrp.net/Legal/default.aspx , respectively, and that

paper copies of the Plan and the Plan prospectus are available upon request by contacting the Manager, Stockholder Relations, Monique B. Marchetti, at mmarchetti@bginc.com or 860-973-2185.

EXHIBIT A

RESTRICTED STOCK UNIT AGREEMENT FOR DIRECTORS

Under the provisions of the Barnes Group Inc. Stock and Incentive Award Plan, as amended through December 10, 2010, (the "Plan"), the Compensation and Management Development Committee of the Company's Board of Directors (the "Committee") has authorized the execution of this Agreement. Capitalized terms used in this Agreement and not otherwise defined herein will have the same meaning as provided for in the Plan or Summary of Grant, as applicable.

NOW, THEREFORE, in consideration of the agreements of each, and for other good and valuable consideration, the parties agree as follows:

RESTRICTED STOCK UNITS:

1. Dividend Equivalents. On each date on which a dividend (other than a dividend paid in Common Stock, which is subject to the adjustment provided in Section 10 of the Plan) is paid to the holders of Common Stock, the record date of which falls during the period commencing on the Grant Date and ending on the first date on which all of the Restricted Stock Units have either been forfeited pursuant to this Agreement or paid pursuant to this Agreement as in effect from time to time on or after the Grant Date (a "Dividend Payment Date"), the Company will pay You an amount of money ("Dividend Equivalents") determined by multiplying
(a) the number of the Restricted Stock Units (if any) that were neither forfeited nor paid on or before such dividend record date, times (b) the dividend per share paid on such Dividend Payment Date. However, if the dividend is paid in property other than cash, the amount of money to be paid to You in respect of such dividend will be determined by multiplying (i) the number of the Restricted Stock Units (if any) that were neither forfeited nor paid on or before such dividend record date, times (ii) the fair market value on such Dividend Payment Date of the property that was paid per share of Common Stock as a dividend on such Dividend Payment Date. The fair market value of the property that was paid will be determined by the Committee in its sole and absolute discretion.

For the avoidance of doubt: Your entitlement to be paid Dividend Equivalents pursuant to the first or second sentence of this Section is contingent on Your not having a "Separation from Service" on or before the record date of such Dividend Equivalents or the applicable vesting date of the Restricted Stock Units to which the Dividend Equivalents relate.

2. Forfeiture of Restricted Stock Units. Notwithstanding the vesting schedule contained in the Restricted Stock Unit Summary of Grant, the vesting schedule may change under one of the following conditions:

(a) Voluntary or Involuntary Termination. If You have a Separation from Service for any reason other than (i) death, (ii) Disability, or (iii) Separation from Service by Retirement, any Restricted Stock Units that have not become non-forfeitable on or before the date on which You have a Separation from Service will be forfeited as of that date, and all of Your rights and interest in and to such forfeited Restricted Stock Units will thereupon terminate without payment of consideration by the Company. No Grant or other amount payable to

You will be reduced by the amount of any Dividend Equivalents previously paid to You with respect to the forfeited Restricted Stock Units.

(b) Death or Disability . If You have a Separation from Service on account of Your death or incur a Disability (and irrespective of whether a Separation from Service occurs at the time of such Disability), then any Restricted Stock Units that did not become non-forfeitable before the date on which Your death or Disability occurs will become non-forfeitable on that date.

(c) Retirement . If You have a Separation from Service by Retirement (so long as there is no Cause), then the portion of any Restricted Stock Units that did not become non-forfeitable before the date of Separation from Service by Retirement will become non-forfeitable on that date.

(d) Change in Control . If You did not have a Separation from Service before the date, if any, on which a "change in control event" occurs (within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i) & (ii)), then, any Restricted Stock Units that did not become non-forfeitable before the change in control event will become non-forfeitable on the date of the change in control event.

(e) Acceptance . By electronically accepting this Grant, You irrevocably consent to any forfeiture of Restricted Stock Units required or authorized by this Agreement.

3. Issuance of Shares . If a Restricted Stock Unit becomes non-forfeitable pursuant to the terms of this Agreement, a share of Common Stock will be credited to a brokerage account established by the Company in Your name (or, in the event of Your death, in the name of Your Beneficiary) in payment of such Restricted Stock Unit on the date on which the Restricted Stock Unit becomes non-forfeitable, or as soon as practicable thereafter, but not later than 60 days thereafter (which date during that 61 day period will be determined by the Company). All shares of Common Stock issued under this Agreement will be duly authorized, validly issued, fully paid and non-assessable.

4. Code Section 409A . Notwithstanding the preceding provisions of this Section or any other provision of this Agreement to the contrary, if You are a specified employee (within the meaning of Treasury Regulation Section 1.409A-1(i)) on the date of a Separation from Service, any payment to be made pursuant to this Agreement that constitutes deferred compensation that is subject to Section 409A of the Code and that is to be paid due to a Separation from Service during the 6 month period following a Separation from Service (a "Delayed Payment") will not be paid during that 6 month period but will instead be accumulated and paid on the first day of the seventh month following the date of the Separation from Service (or, if earlier, within 14 days after the death of You)(the "Delayed Payment Date"). For the avoidance of doubt, the preceding sentence will apply to any payment (and only to any payment) pursuant to this Agreement to which Code Section 409A(a)(2)(B)(i) (relating to specified employees) applies, and will not apply to any payment that is not subject to Code Section 409A as a result of Treasury Regulation Section 1.409A-1(b)(4) (relating to short-term deferrals) or otherwise. Also for the avoidance of doubt, any Delayed Payment will accrue Dividend Equivalents until it is paid pursuant to the preceding provisions of this Section, which Dividend Equivalents will be accumulated and deemed reinvested in additional Restricted Stock Units at Fair Market Value on the Dividend Payment Date of such Dividend Equivalents (which additional Restricted Stock Units may also accrue Dividend Equivalents) and which will be paid (in money) on the Delayed Payment Date based on the Fair Market Value of such additional Restricted Stock Units on the Delayed Payment Date. Your right to any series of payments of Restricted Stock Units or Dividend Equivalents pursuant to this Agreement will be treated as a right to a series of separate payments within the meaning of

Treasury Regulation Section 1.409A-2(b)(2)(iii), including without limitation for purposes of the short-term deferral rule set forth in Treasury Regulation Section 1.409A-1(b)(4).

5. Your Commitments; Recoupment .

(a) If You, at any time before the Grant terminates: (i) directly or indirectly, whether as an owner, partner, shareholder, consultant, agent, employee, investor or in any other capacity, accept employment by,

render services for or otherwise assist any other business which competes with the business conducted by the Company or any of its Subsidiaries in which You worked during Your last 2 years with the Company or any of its Subsidiaries; (ii) directly or indirectly, hire or solicit or arrange for the hiring or solicitation of any employee of the Company or any of its Subsidiaries, or encourage any such employee to leave such employment; (iii) use, disclose, misappropriate or transfer confidential or proprietary information concerning the Company or any of its Subsidiaries (except as required by Your work responsibilities with the Company or any of

its Subsidiaries); or (iv) are convicted of a crime against the Company or any of its Subsidiaries; or (v) engage in any activity in violation of the policies of the Company or any of its Subsidiaries, including without limitation the Company's Code of Business Ethics and Conduct, or, at any time, engage in conduct adverse to the best interests of the Company or any of its Subsidiaries; then should any of the foregoing events occur, the Grant will be canceled, unless the Committee, in its sole discretion, elects not to cancel such Grant. The obligations in this Section are in addition to any other agreements related to non-competition, non-solicitation and preservation of Company confidential and proprietary information entered into between You and the Company, and nothing herein is intended to waive, modify, alter or amend the terms of any such other agreement.

(b) You agree that You will be subject to any compensation, clawback and recoupment policies that may be applicable to You, as in effect from time to time and as approved by the Board or the Committee, whether or not approved before or after the Grant Date.

6. Restrictions on Grant . In no event may (a) You sell, exchange, transfer, assign, pledge, hypothecate, mortgage or dispose of the Grant or any interest therein, nor (b) the Grant or any interest therein be subject to anticipation, attachment, garnishment, levy, encumbrance or charge of any nature, voluntary or involuntary, by operation of law or otherwise and any attempt to do so, whether voluntary or involuntary, will be null and void and no other party will obtain any rights to or interest in the Grant. You may designate a Beneficiary to receive the Grant in the event of Your death in accordance with Section 2(d) of the Plan. Any Beneficiary will receive the Grant subject to all of the terms, conditions and restrictions set forth in this Agreement, including but not limited to the forfeiture provisions set forth in this Agreement.

7. Taxes and Withholding . The Committee may cause to be made, as a condition precedent to any payment or transfer of stock hereunder, appropriate arrangements for the withholding of any Federal, state or local taxes. If applicable, the Company will have the right, in its discretion, to deduct from any Dividend Equivalents payable pursuant to this Agreement, and from any shares to be issued pursuant to this Agreement, cash and/or shares, valued at Fair Market Value on the date of payment, in an amount necessary to satisfy all Federal, state and local taxes required by law to be withheld with respect to such Dividend Equivalents, cash and/or shares. You may be required to pay to the Company, prior to delivery of certificates representing such shares and prior to such shares being credited to a book entry account in Your name, the amount of any such taxes. The Company will accept whole shares of Common Stock of equivalent Fair Market Value in payment of the Company's minimum statutory withholding tax obligations if You elect to make payment in

shares.

8. Compliance with Law . The Company will make reasonable efforts to comply with all applicable federal and state securities laws. However, no shares or other securities will be issued pursuant to this Agreement if their issuance would result in a violation of any such law. If at any time the Committee determines, in its discretion, that the listing, registration or qualification of any shares subject to this Grant upon any securities exchange or under any state or Federal law, or the consent or approval of any government regulatory body, is necessary or desirable as a condition of, or in connection with, the granting of this Grant or the issue of shares hereunder, no rights under the Grant may be exercised and shares of Common Stock may not be issued pursuant to the Grant, in whole or in part, unless such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Committee and any delay will in no way affect the dates of vesting or forfeiture of the Grant.

9. Amendments; Integrated Agreement . This Agreement may only be amended in a writing signed by You and an officer of the Company duly authorized to do so. This Agreement contains the entire agreement of the parties relating to the subject matter of this Agreement and supersedes and replaces all prior agreements and understandings with respect to such subject matter, and the parties have made no agreements, representations or warranties relating to the subject matter of this Agreement which are not set forth herein.

10. Relation to Plan; Interpretation . The Grant is granted under the Plan, and the Grant and this Agreement are each subject to the terms and conditions of the Plan, which is incorporated in this Agreement by reference. In the event of any inconsistent provisions between this Agreement and the Plan, the provisions of the Plan control. References to Sections are to Sections of this Agreement unless otherwise noted. The titles to Sections of this Agreement are intended solely for convenience and no provision of this Agreement is to be construed by reference to the title of any Section.

11. Notices . Any notice hereunder by You will be given to the Senior Vice President Human Resources and the Corporate Secretary in writing and such notice and any payment by You will be deemed duly given or made only upon receipt by the Corporate Secretary at Barnes Group Inc., 123 Main Street, Bristol, Connecticut 06010, U.S.A., or at such other address as the Company may designate by notice to You. Any notice to You will be in writing and will be deemed duly given if delivered to You in person or mailed or otherwise delivered to You at such address as You may have on file with the Company from time to time.

12. Interpretation and Disputes . This Agreement will be interpreted and construed, and all determinations will be made, by the Committee, and any such interpretation, construction or determination will be final, binding and conclusive on the Company and You. In the event there is any inconsistency between the provisions of this Agreement and the Plan, the provisions of the Plan will govern.

Any claim, demand or controversy arising from such interpretation, construction or determination by the Committee shall be submitted first to a mediator in accordance with the rules of the American Arbitration Association (“AAA”) by submitting a mediation request to the Administrator within 30 days of the date of the Committee's interpretation or construction. The mediation process shall conclude upon the earlier of: (i) the resolution of the dispute; (ii) a determination by either the mediator or one or

more of the parties that all settlement possibilities have

been exhausted and there is no possibility of resolution; or (iii) 30 days have passed since the filing of a request to mediate with the AAA. A party who has previously submitted a dispute to mediation, and which dispute has not been resolved, may submit such dispute to binding arbitration pursuant to the rules of the AAA. Any arbitration proceeding for such dispute must be initiated within 14 days from the date that the mediation process has concluded. The prevailing party shall recover its costs and reasonable attorney's fees incurred in such arbitration proceeding. You and the Company specifically understand and agree that the failure of a party to timely initiate a proceeding hereunder shall bar the party from any relief or other proceeding and any such dispute shall be deemed to have been finally and completely resolved. All mediation and arbitration proceedings shall be conducted in Bristol, Connecticut or such other location as the Company may determine and You agree that no objection shall be made to such jurisdiction or venue, as a forum non conveniens or otherwise. The arbitrator's authority shall be limited to resolution of the legal disputes between the parties and the arbitrator shall not have authority to modify or amend this Agreement or the Committee's interpretation or construction thereof, or abridge or enlarge rights available under applicable law. Any court with jurisdiction over the parties may enforce any award made hereunder.

13. General .

(a) Nothing in this Agreement confers upon You any right to continue in the employ or other service of the Company or any Subsidiary, or limit in any manner the right of the Company, its stockholders or any Subsidiary to terminate Your employment or adjust Your compensation.

(b) You have no rights as a stockholder with respect to any shares that may be issued pursuant to this Agreement until the date of issuance to You of a stock certificate for such shares or the date of a credit for such shares in a brokerage account in Your name.

(c) This Agreement is binding upon the successors and assigns of the Company and upon Your

Beneficiary, estate, legal representatives, legatees and heirs.

(d) This Agreement is governed by and construed in accordance with the laws of the State of Delaware, without regard to the principles of conflicts of laws thereof.

(e) If applicable, any shares that may be earned pursuant to this Agreement are intended to qualify as “performance-based compensation” within the meaning of Section 162(m)(4)(C) of the Code. Any provision of this Agreement that would prevent any such shares from so qualifying will be administered, interpreted and construed to carry out such intention, and any provision that cannot be so administered, interpreted and construed will to that extent be disregarded.

14. Definitions .

(a) “Cause” means (i) Your willful and continued failure to substantially perform Your duties with the Company (other than any such failure resulting from the Your incapacity due to physical or mental illness) or (ii) Your willful engaging in conduct which is demonstrably and materially injurious to the Company or its Subsidiaries, monetarily or otherwise.

(b) “Disability” means “disability” as set forth in Treasury Regulation Section 1.409A-3(i)(4)(i).

(c) “Separation from Service” means ceasing to be a member of the Board which constitutes a “separation from service with the employer” within the meaning of Treasury Regulation Section 1.409A-1(h), where the “employer” means the Company and all corporations and trades or businesses with which the Company would be considered a single employer under Section 414(b) or Section 414(c) of the Code (as determined in accordance with the first sentence of Treasury Regulation Section 1.409A-1(h)(3)).

(d) “Separation from Service by Retirement” means a Separation from Service from the Company in accordance with the Company's corporate governance guidelines.

BARNES GROUP INC.

STOCK AND INCENTIVE AWARD PLAN RESTRICTED STOCK UNIT SUMMARY OF GRANT

For Directors

Barnes Group Inc. , a Delaware corporation (the "Company"), under the Barnes Group Inc. Stock and Incentive Award Plan, as amended (the "Plan"), hereby grants to the individual named below ("You" or "Grantee") this Restricted Stock Unit Award (the "Grant"), representing the number of restricted stock units set forth below (each a "Restricted Stock Unit"). This Grant entitles You to receive, without payment to the Company and at the applicable time or times set forth below, a number of shares of Common Stock equal to the number of Restricted Stock Units listed below that vest subject to this Restricted Stock Unit Summary of Grant (this "Summary of Grant"), and the Restricted Stock Unit Agreement attached as Exhibit A (the "Restricted Stock Unit Agreement") and the Plan, both of which are incorporated herein by reference and made part hereof. The Grant also entitles You to be paid Dividend Equivalents as set forth in the Restricted Stock Unit Agreement. Unless otherwise defined, capitalized terms used in this Summary of Grant and the Restricted Stock Agreement have the meanings set forth in the Plan.

Grantee: [___]
Grant Date: [___] [ ], [___]

Number of Restricted Stock Units and Vesting Schedule:

[___] Restricted Stock Units. The Restricted Stock Units will vest as to 50% on each of the first and second anniversaries of the Grant Date, as follows:

No. of Restricted Stock Units	Vesting Date
	[___] [ ], [___]
	[__

] [ ], [___] Except as provided otherwise in the Restricted Stock Unit
Agreement, the Restricted Stock Units will vest in accordance with
the foregoing vesting schedule if You remain in continued service with the Company through the applicable vesting date.

Grant Acceptance:

You agree to be bound by the Plan, the Restricted Stock Unit Agreement and this Summary of Grant by electronically acknowledging and accepting the Grant following the date of the Company's electronic or other written notification to You of the Grant. You accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions arising under the Plan, this Summary of Grant or the Restricted Stock Unit Agreement. In no event do You acquire any rights to the Grant unless You electronically accept, no later than 60 days after the Grant Date, this Summary of Grant and the attached Restricted Stock Unit Grant Agreement.

You acknowledge that the Plan and the Plan prospectus are available as part of the online grant package with E*Trade and Barnes Net at http:/ /barnesnet.barnesgrp.net/Legal/default.aspx, respectively, and that

paper copies of the Plan and the Plan prospectus are available upon request by contacting the Manager, Stockholder Relations, Monique B. Marchetti, at mmarchetti@bginc.com or 860-973-2185.

EXHIBIT A

RESTRICTED STOCK UNIT AGREEMENT FOR DIRECTORS

Under the provisions of the Barnes Group Inc. Stock and Incentive Award Plan, as amended through December 10, 2010, (the "Plan"), the Compensation and Management Development Committee of the Company's Board of Directors (the "Committee") has authorized the execution of this Agreement. Capitalized terms used in this Agreement and not otherwise defined herein will have the same meaning as provided for in the Plan or Summary of Grant, as applicable.

NOW, THEREFORE, in consideration of the agreements of each, and for other good and valuable consideration, the parties agree as follows:

RESTRICTED STOCK UNITS:

1. Dividend Equivalents. On each date on which a dividend (other than a dividend paid in Common Stock, which is subject to the adjustment provided in Section 10 of the Plan) is paid to the holders of Common Stock, the record date of which falls during the period commencing on the Grant Date and ending on the first date on which all of the Restricted Stock Units have either been forfeited pursuant to this Agreement or paid pursuant to this Agreement as in effect from time to time on or after the Grant Date (a "Dividend Payment Date"), the Company will pay You an amount of money ("Dividend Equivalents") determined by multiplying
(a) the number of the Restricted Stock Units (if any) that were neither forfeited nor paid on or before such dividend record date, times (b) the dividend per share paid on such Dividend Payment Date. However, if the dividend is paid in property other than cash, the amount of money to be paid to You in respect of such dividend will be determined by multiplying (i) the number of the Restricted Stock Units (if any) that were neither forfeited nor paid on or before such dividend record date, times (ii) the fair market value on such Dividend Payment Date of the property that was paid per share of Common Stock as a dividend on such Dividend Payment Date. The fair market value of the property that was paid will be determined by the Committee in its sole and absolute discretion.

For the avoidance of doubt: Your entitlement to be paid Dividend Equivalents pursuant to the first or second sentence of this Section is contingent on Your not having a "Separation from Service" on or before the record date of such Dividend Equivalents or the applicable vesting date of the Restricted Stock Units to which the Dividend Equivalents relate.

2. Forfeiture of Restricted Stock Units. Notwithstanding the vesting schedule contained in the Restricted Stock Unit Summary of Grant, the vesting schedule may change under one of the following conditions:

(a) Voluntary or Involuntary Termination. If You have a Separation from Service for any reason other than (i) death, (ii) Disability, or (iii) Separation from Service by Retirement, any Restricted Stock Units that have not become non-forfeitable on or before the date on which You have a Separation from Service will be forfeited as of that date, and all of Your rights and interest in and to such forfeited Restricted Stock Units will thereupon terminate without payment of consideration by the Company. No Grant or other amount payable to

You will be reduced by the amount of any Dividend Equivalents previously paid to You with respect to the forfeited Restricted Stock Units.

(b) Death or Disability . If You have a Separation from Service on account of Your death or incur a Disability (and irrespective of whether a Separation from Service occurs at the time of such Disability), then any Restricted Stock Units that did not become non-forfeitable before the date on which Your death or Disability occurs will become non-forfeitable on that date.

(c) Retirement . If You have a Separation from Service by Retirement (so long as there is no Cause), then the portion of any Restricted Stock Units that did not become non-forfeitable before the date of Separation from Service by Retirement will become non-forfeitable on that date.

(d) Change in Control . If You did not have a Separation from Service before the date, if any, on which a "change in control event" occurs (within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i) & (ii)), then, any Restricted Stock Units that did not become non-forfeitable before the change in control event will become non-forfeitable on the date of the change in control event.

(e) Acceptance . By electronically accepting this Grant, You irrevocably consent to any forfeiture of Restricted Stock Units required or authorized by this Agreement.

3. Issuance of Shares . If a Restricted Stock Unit becomes non-forfeitable pursuant to the terms of this Agreement, a share of Common Stock will be credited to a brokerage account established by the Company in Your name (or, in the event of Your death, in the name of Your Beneficiary) in payment of such Restricted Stock Unit on the date on which the Restricted Stock Unit becomes non-forfeitable, or as soon as practicable thereafter, but not later than 60 days thereafter (which date during that 61 day period will be determined by the Company). All shares of Common Stock issued under this Agreement will be duly authorized, validly issued, fully paid and non-assessable.

4. Code Section 409A . Notwithstanding the preceding provisions of this Section or any other provision of this Agreement to the contrary, if You are a specified employee (within the meaning of Treasury Regulation Section 1.409A-1(i)) on the date of a Separation from Service, any payment to be made pursuant to this Agreement that constitutes deferred compensation that is subject to Section 409A of the Code and that is to be paid due to a Separation from Service during the 6 month period following a Separation from Service (a "Delayed Payment") will not be paid during that 6 month period but will instead be accumulated and paid on the first day of the seventh month following the date of the Separation from Service (or, if earlier, within 14 days after the death of You)(the "Delayed Payment Date"). For the avoidance of doubt, the preceding sentence will apply to any payment (and only to any payment) pursuant to this Agreement to which Code Section 409A(a)(2)(B)(i) (relating to specified employees) applies, and will not apply to any payment that is not subject to Code Section 409A as a result of Treasury Regulation Section 1.409A-1(b)(4) (relating to short-term deferrals) or otherwise. Also for the avoidance of doubt, any Delayed Payment will accrue Dividend Equivalents until it is paid pursuant to the preceding provisions of this Section, which Dividend Equivalents will be accumulated and deemed reinvested in additional Restricted Stock Units at Fair Market Value on the Dividend Payment Date of such Dividend Equivalents (which additional Restricted Stock Units may also accrue Dividend Equivalents) and which will be paid (in money) on the Delayed Payment Date based on the Fair Market Value of such additional Restricted Stock Units on the Delayed Payment Date. Your right to any series of payments of Restricted Stock Units or Dividend Equivalents pursuant to this Agreement will be treated as a right to a series of separate payments within the meaning of

Treasury Regulation Section 1.409A-2(b)(2)(iii), including without limitation for purposes of the short-term deferral rule set forth in Treasury Regulation Section 1.409A-1(b)(4).

5. Your Commitments; Recoupment .

(a) If You, at any time before the Grant terminates: (i) directly or indirectly, whether as an owner, partner, shareholder, consultant, agent, employee, investor or in any other capacity, accept employment by,

render services for or otherwise assist any other business which competes with the business conducted by the Company or any of its Subsidiaries in which You worked during Your last 2 years with the Company or any of its Subsidiaries; (ii) directly or indirectly, hire or solicit or arrange for the hiring or solicitation of any employee of the Company or any of its Subsidiaries, or encourage any such employee to leave such employment; (iii) use, disclose, misappropriate or transfer confidential or proprietary information concerning the Company or any of its Subsidiaries (except as required by Your work responsibilities with the Company or any of its Subsidiaries); or (iv) are convicted of a crime against the Company or any of its Subsidiaries; or (v) engage in any activity in violation of the policies of the Company or any of its Subsidiaries, including without limitation the Company's Code of Business Ethics and Conduct, or, at any time, engage in conduct adverse to the best interests of the Company or any of its Subsidiaries; then should any of the foregoing events occur, the Grant will be canceled, unless the Committee, in its sole discretion, elects not to cancel such Grant. The obligations in this Section are in addition to any other agreements related to non-competition, non-solicitation and preservation of Company confidential and proprietary information entered into between You and the Company, and nothing herein is intended to waive, modify, alter or amend the terms of any such other agreement.

(b) You agree that You will be subject to any compensation, clawback and recoupment policies that may be applicable to You, as in effect from time to time and as approved by the Board or the Committee, whether or not approved before or after the Grant Date.

6. Restrictions on Grant . In no event may (a) You sell, exchange, transfer, assign, pledge, hypothecate, mortgage or dispose of the Grant or any interest therein, nor (b) the Grant or any interest therein be subject to anticipation, attachment, garnishment, levy, encumbrance or charge of any nature, voluntary or involuntary, by operation of law or otherwise and any attempt to do so, whether voluntary or involuntary, will be null and void and no other party will obtain any rights to or interest in the Grant. You may designate a Beneficiary to receive the Grant in the event of Your death in accordance with Section 2(d) of the Plan. Any Beneficiary will receive the Grant subject to all of the terms, conditions and restrictions set forth in this Agreement, including but not limited to the forfeiture provisions set forth in this Agreement.

7. Taxes and Withholding . The Committee may cause to be made, as a condition precedent to any payment or transfer of stock hereunder, appropriate arrangements for the withholding of any Federal, state or local taxes. If applicable, the Company will have the right, in its discretion, to deduct from any Dividend Equivalents payable pursuant to this Agreement, and from any shares to be issued pursuant to this Agreement, cash and/or shares, valued at Fair Market Value on the date of payment, in an amount necessary to satisfy all Federal, state and local taxes required by law to be withheld with respect to such Dividend Equivalents, cash and/or shares. You may be required to pay to the Company, prior to delivery of certificates representing such shares and prior to such shares being credited to a book entry account in Your name, the amount of any such taxes. The Company will accept whole shares of Common Stock of equivalent Fair Market Value in payment of the Company's minimum statutory withholding tax obligations if You elect to make payment in

shares.

8. Compliance with Law . The Company will make reasonable efforts to comply with all applicable federal and state securities laws. However, no shares or other securities will be issued pursuant to this Agreement if their issuance would result in a violation of any such law. If at any time the Committee determines, in its discretion, that the listing, registration or qualification of any shares subject to this Grant upon any securities exchange or under any state or Federal law, or the consent or approval of any government regulatory body, is necessary or desirable as a condition of, or in connection with, the granting of this Grant or the issue of shares hereunder, no rights under the Grant may be exercised and shares of Common Stock may not be issued pursuant to the Grant, in whole or in part, unless such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Committee and any delay will in no way affect the dates of vesting or forfeiture of the Grant.

9. Amendments; Integrated Agreement . This Agreement may only be amended in a writing signed by You and an officer of the Company duly authorized to do so. This Agreement contains the entire agreement of the parties relating to the subject matter of this Agreement and supersedes and replaces all prior agreements and understandings with respect to such subject matter, and the parties have made no agreements, representations or warranties relating to the subject matter of this Agreement which are not set forth herein.

10. Relation to Plan; Interpretation . The Grant is granted under the Plan, and the Grant and this Agreement are each subject to the terms and conditions of the Plan, which is incorporated in this Agreement by reference. In the event of any inconsistent provisions between this Agreement and the Plan, the provisions of the Plan control. References to Sections are to Sections of this Agreement unless otherwise noted. The titles to Sections of this Agreement are intended solely for convenience and no provision of this Agreement is to be construed by reference to the title of any Section.

11. Notices . Any notice hereunder by You will be given to the Senior Vice President Human Resources and the Corporate Secretary in writing and such notice and any payment by You will be deemed duly given or made only upon receipt by the Corporate Secretary at Barnes Group Inc., 123 Main Street, Bristol, Connecticut 06010, U.S.A., or at such other address as the Company may designate by notice to You. Any notice to You will be in writing and will be deemed duly given if delivered to You in person or mailed or otherwise delivered to You at such address as You may have on file with the Company from time to time.

12. Interpretation and Disputes . This Agreement will be interpreted and construed, and all determinations will be made, by the Committee, and any such interpretation, construction or determination will be final, binding and conclusive on the Company and You. In the event there is any inconsistency between the provisions of this Agreement and the Plan, the provisions of the Plan will govern.

Any claim, demand or controversy arising from such interpretation, construction or determination by the Committee shall be submitted first to a mediator in accordance with the rules of the American Arbitration Association ("AAA") by submitting a mediation request to the Administrator within 30 days of the date of the Committee's interpretation or construction. The mediation process shall conclude upon the earlier of: (i) the resolution of the dispute; (ii) a determination by either the mediator or one or more of the parties that all settlement possibilities have

been exhausted and there is no possibility of resolution; or (iii) 30 days have passed since the filing of a request to mediate with the AAA. A party who has previously submitted a dispute to mediation, and which dispute has not been resolved, may submit such dispute to binding arbitration pursuant to the rules of the AAA. Any arbitration proceeding for such dispute must be initiated within 14 days from the date that the mediation process has concluded. The prevailing party shall recover its costs and reasonable attorney's fees incurred in such arbitration proceeding. You and the Company specifically understand and agree that the failure of a party to timely initiate a proceeding hereunder shall bar the party from any relief or other proceeding and any such dispute shall be deemed to have been finally and completely resolved. All mediation and arbitration proceedings shall be conducted in Bristol, Connecticut or such other location as the Company may determine and You agree that no objection shall be made to such jurisdiction or venue, as a forum non conveniens or otherwise. The arbitrator's authority shall be limited to resolution of the legal disputes between the parties and the arbitrator shall not have authority to modify or amend this Agreement or the Committee's interpretation or construction thereof, or abridge or enlarge rights available under applicable law. Any court with jurisdiction over the parties may enforce any award made hereunder.

13. General .

(a) Nothing in this Agreement confers upon You any right to continue in the employ or other service of the Company or any Subsidiary, or limit in any manner the right of the Company, its stockholders or any Subsidiary to terminate Your employment or adjust Your compensation.

(b) You have no rights as a stockholder with respect to any shares that may be issued pursuant to this Agreement until the date of issuance to You of a stock certificate for such shares or the date of a credit for such shares in a brokerage account in Your name.

(c) This Agreement is binding upon the successors and assigns of the Company and upon Your

Beneficiary, estate, legal representatives, legatees and heirs.

(d) This Agreement is governed by and construed in accordance with the laws of the State of Delaware, without regard to the principles of conflicts of laws thereof.

(e) If applicable, any shares that may be earned pursuant to this Agreement are intended to qualify as "performance-based compensation" within the meaning of Section 162(m)(4)(C) of the Code. Any provision of this Agreement that would prevent any such shares from so qualifying will be administered, interpreted and construed to carry out such intention, and any provision that cannot be so administered, interpreted and construed will to that extent be disregarded.

14. Definitions .

(a) "Cause" means (i) Your willful and continued failure to substantially perform Your duties with the Company (other than any such failure resulting from the Your incapacity due to physical or mental illness) or (ii) Your willful engaging in conduct which is demonstrably and materially injurious to the Company or its Subsidiaries, monetarily or otherwise.

(b) "Disability" means "disability" as set forth in Treasury Regulation Section 1.409A-3(i)(4)(i).

(c) "Separation from Service" means ceasing to be a member of the Board which constitutes a "separation from service with the employer" within the meaning of Treasury Regulation Section 1.409A-1(h), where the "employer" means the Company and all corporations and trades or businesses with which the Company would be considered a single employer under Section 414(b) or Section 414(c) of the Code (as determined in accordance with the first sentence of Treasury Regulation Section 1.409A-1(h)(3)).

(d) "Separation from Service by Retirement" means a Separation from Service from the Company in accordance with the Company's corporate governance guidelines.

BARNES GROUP INC.

STOCK AND INCENTIVE AWARD PLAN RESTRICTED STOCK UNIT SUMMARY OF GRANT

For Employees

Barnes Group Inc. , a Delaware corporation (the "Company"), under the Barnes Group Inc. Stock and Incentive Award Plan, as amended (the "Plan"), hereby grants to the individual named below ("You" or "Grantee") this Restricted Stock Unit Award (the "Grant"), representing the number of restricted stock units set forth below (each a "Restricted Stock Unit"). This Grant entitles You to receive, without payment to the Company and at the applicable time or times set forth below, a number of shares of Common Stock equal to the number of Restricted Stock Units listed below that vest subject to this Restricted Stock Unit Summary of Grant (this "Summary of Grant"), and the Restricted Stock Unit Agreement attached as Exhibit A (the "Restricted Stock Unit Agreement") and the Plan, both of which are incorporated herein by reference and made part hereof. The Grant also entitles You to be paid Dividend Equivalents as set forth in the Restricted Stock Unit Agreement. Unless otherwise defined, capitalized terms used in this Summary of Grant and the Restricted Stock Agreement have the meanings set forth in the Plan.

Grantee: [___]

Grant Date: February , 2012

Number of Restricted Stock Units and Vesting Schedule:

[___] Restricted Stock Units. The Restricted Stock Units will vest as to 1/3 on the 18-month, 30-month and 42-month anniversaries of the Grant Date, as follows:

No. of Restricted Stock Units	Vesting Date
	August , 2013
	August , 2014
	August , 2015

Except as provided otherwise in the Restricted Stock Unit Agreement, the Restricted Stock Units will vest in accordance with the foregoing vesting schedule if You remain in continued employment with the Company through the applicable vesting date.

Grant Acceptance:

You agree to be bound by the Plan, the Restricted Stock Unit Agreement and this Summary of Grant by electronically acknowledging and accepting the Grant following the date of the

Company's electronic or other written notification to You of the Grant. You accept as binding, conclusive and final all decisions or

interpretations of the Committee upon any questions arising under the Plan, this Summary of Grant or the

Restricted Stock Unit Agreement. In no event do You acquire any rights to the Grant unless You electronically accept, no later than 60 days after the Grant Date, this Summary of Grant and the attached Restricted Stock Unit Grant Agreement.

You acknowledge that the Plan and the Plan prospectus are available as part of the online grant package with E*Trade and Barnes Net at http:// barnesnet.barnesgrp.net/Legal/default.aspx , respectively, and that paper copies of the Plan and the Plan prospectus are available upon request by contacting the Manager, Stockholder Relations, Monique B. Marchetti, at mmarchetti@bginc.com or 860-973-2185.

EXHIBIT A

RESTRICTED STOCK UNIT AGREEMENT

Under the provisions of the Barnes Group Inc. Stock and Incentive Award Plan, as amended through December 10, 2010, (the "Plan"), the Compensation and Management Development Committee of the Company's Board of Directors (the "Committee") has authorized the execution of this Agreement. Capitalized terms used in this Agreement and not otherwise defined herein will have the same meaning as provided for in the Plan or Summary of Grant, as applicable.

NOW, THEREFORE, in consideration of the agreements of each, and for other good and valuable consideration, the parties agree as follows:

1. Dividend Equivalents . On each date on which a dividend (other than a dividend paid in Common Stock, which is subject to the adjustment provided in Section 10 of the Plan) is paid to the holders of Common Stock, the record date of which falls during the period commencing on the Grant Date and ending on the first date on which all of the Restricted Stock Units have either been forfeited pursuant to this Agreement or paid pursuant to this Agreement as in effect from time to time on or after the Grant Date (a "Dividend Payment Date"), the Company will pay You an amount of money ("Dividend Equivalents") determined by multiplying (a) the number of the Restricted Stock Units (if any) that were neither forfeited nor paid on or before such dividend record date, times (b) the dividend per share paid on such Dividend Payment Date. However, if the dividend is paid in property other than cash, the amount of money to be paid to You in respect of such dividend will be determined by multiplying (i) the number of the Restricted Stock Units (if any) that were neither forfeited nor paid on or before such dividend record date, times (ii) the fair market value on such Dividend Payment Date of the property that was paid per share of Common Stock as a dividend on such Dividend Payment Date. The fair market value of the property that was paid will be determined by the Committee in its sole and absolute discretion.

For the avoidance of doubt: Your entitlement to be paid Dividend Equivalents pursuant to the first or second sentence of this Section is contingent on Your not having a "Separation from Service" on or before the record date of such Dividend Equivalents or the applicable vesting date of the Restricted Stock Units to which the Dividend Equivalents relate.

2. Forfeiture of Restricted Stock Units . Notwithstanding the vesting schedule contained in the Restricted Stock Unit Summary of Grant, the vesting schedule may change under one of the following conditions:

(a) Voluntary or Involuntary Termination . If You have a Separation from Service for any reason other than (i) death, (ii) Disability, or (iii) Separation from Service by Retirement (to the extent set forth in (d) below), any Restricted Stock Units that have not become non-forfeitable on or before the date on which You have a Separation from Service will be

forfeited as of that date, and all of Your rights and interest in and to such forfeited Restricted Stock Units will thereupon terminate without payment of consideration by the Company. No Grant or other amount payable to You will be reduced by the amount of any Dividend Equivalents previously paid to You with respect to the forfeited Restricted Stock Units.

(b) Death or Disability . If You have a Separation from Service on account of Your death or incur a Disability (and irrespective of whether a Separation from Service occurs at the time of such Disability), then any Restricted Stock Units that did not become non-forfeitable before the date on which Your death or Disability occurs will become non-forfeitable on that date.

(c) Retirement . If You have a Separation from Service by Retirement (so long as there is no Cause), and if, at least 2 years have passed since the Grant Date, then the portion of any Restricted Stock Units that did not become non-forfeitable before the date of Separation from Service by Retirement will become non-forfeitable on that date.

(d) Change in Control . If You did not have a Separation from Service before the date, if any, on which a "change in control event" occurs (within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i) & (ii)), then, except as otherwise provided in Your employment agreement with the Company, if applicable, any Restricted Stock Units that did not become non-forfeitable before the Change in Control will become non-forfeitable upon termination of employment (i) by the Company without Cause, (ii) by You for Good Reason, (iii) on account of death, (iv) on account of Disability, or (v) on account of Your Retirement, in each case, if such termination occurs on or within 2 years following the Change in Control.

(e) Acceptance . By electronically accepting this Grant, You irrevocably consent to any forfeiture of Restricted Stock Units required or authorized by this Agreement.

3. Issuance of Shares . If a Restricted Stock Unit becomes non-forfeitable pursuant to the terms of this Agreement, a share of Common Stock will be credited to a brokerage account established by the Company in Your name (or, in the event of Your death, in the name of Your Beneficiary) in payment of such Restricted Stock Unit on the date on which the Restricted Stock Unit becomes non-forfeitable or as soon as practicable thereafter, but not later than 60 days thereafter (which date during that 61 day period will be determined by the Company). All shares of Common Stock issued under this Agreement will be duly authorized, validly issued, fully paid and non-assessable.

4. Code Section 409A . Notwithstanding the preceding provisions of this Section or any other provision of this Agreement to the contrary, if You are a specified employee (within the meaning of Treasury Regulation Section 1.409A-1(i)) on the date of a Separation from Service, any payment to be made pursuant to this Agreement that constitutes deferred compensation that is subject to Section 409A of the Code and that is to be paid due to a Separation from Service during the 6 month period following a Separation from Service (a "Delayed Payment") will not be paid during that 6 month period but will instead be accumulated and paid on the first day of

the seventh month following the date of the Separation from Service (or, if earlier, within 14 days after the death of You)(the "Delayed Payment Date"). For the avoidance of doubt, the preceding sentence will apply to any payment (and only to any payment) pursuant to this Agreement to which Code Section 409A(a)(2)(B)(i) (relating to specified employees) applies, and will not apply to any payment that is not subject to Code Section 409A as a result of Treasury Regulation Section 1.409A-1(b)(4) (relating to short-term deferrals) or otherwise. Also for the avoidance of doubt, any Delayed Payment will accrue Dividend Equivalents until it is paid pursuant to the preceding provisions of this Section, which Dividend Equivalents will be accumulated and deemed reinvested in additional Restricted Stock Units at Fair

Market Value on the Dividend Payment Date of such Dividend Equivalents (which additional Restricted Stock Units may also accrue Dividend Equivalents) and which will be paid (in money) on the Delayed Payment Date based on the Fair Market Value of such additional Restricted Stock Units on the Delayed Payment Date. Your right to any series of payments of Restricted Stock Units or Dividend Equivalents pursuant to this Agreement will be treated as a right to a series of separate payments within the meaning of Treasury Regulation Section 1.409A-2(b)(2)(iii), including without limitation for purposes of the short-term deferral rule set forth in Treasury Regulation Section 1.409A-1(b)(4).

5. Your Commitments; Recoupment .

(a) If You, at any time before the Grant terminates: (i) directly or indirectly, whether as an owner, partner, shareholder, consultant, agent, employee, investor or in any other capacity, accept employment by, render services for or otherwise assist any other business which competes with the business conducted by the Company or any of its Subsidiaries in which You worked during Your last 2 years with the Company or any of its Subsidiaries; (ii) directly or indirectly, hire or solicit or arrange for the hiring or solicitation of any employee of the Company or any of its Subsidiaries, or encourage any such employee to leave such employment; (iii) use, disclose, misappropriate or transfer confidential or proprietary information concerning the Company or any of its Subsidiaries (except as required by Your work responsibilities with the Company or any of its Subsidiaries); or (iv) are convicted of a crime against the Company or any of its Subsidiaries; or (v) engage in any activity in violation of the policies of the Company or any of its Subsidiaries, including without limitation the Company's Code of Business Ethics and Conduct, or, at any time, engage in conduct adverse to the best interests of the Company or any of its Subsidiaries; then should any of the foregoing events occur, the Grant will be canceled, unless the Committee, in its sole discretion, elects not to cancel such Grant. The obligations in this Section are in addition to any other agreements related to non-competition, non- solicitation and preservation of Company confidential and proprietary information entered into between You and the Company, and nothing herein is intended to waive, modify, alter or amend the terms of any such other agreement.

(b) You agree that You will be subject to any compensation, clawback and recoupment policies that may be applicable to You, as in effect from time to time and as approved by the Board or the Committee, whether or not approved before or after the Grant Date.

6. Restrictions on Grant . In no event may (a) You sell, exchange, transfer, assign, pledge, hypothecate, mortgage or dispose of the Grant or any interest therein, nor (b) the Grant or any interest therein be subject to anticipation, attachment, garnishment, levy, encumbrance or charge of any nature, voluntary or involuntary, by operation of law or otherwise and any attempt to do so, whether voluntary or involuntary, will be null and void and no other party will obtain any rights to or interest in the Grant. You may designate a Beneficiary to receive the Grant in the event of Your death in accordance with Section 2(d) of the Plan. Any Beneficiary will receive the Grant subject to all of the terms, conditions and restrictions set forth in this Agreement, including but not limited to the forfeiture provisions set forth in this Agreement.

7. Taxes and Withholding . The Committee may cause to be made, as a condition precedent to any payment or transfer of stock hereunder, appropriate arrangements for the withholding of any Federal, state or local taxes. If applicable, the Company will have the right, in its discretion, to deduct from any Dividend Equivalents payable pursuant to this Agreement, and from any shares to be issued pursuant to this Agreement, cash and/or shares, valued at Fair Market Value on the date of payment, in an amount necessary to satisfy all Federal, state and local taxes required by law to be withheld with respect to such Dividend Equivalents, cash and/or shares. You may be required to pay to the Company, prior to delivery of certificates representing such shares and prior to such shares being credited to a book entry account in Your name, the amount of any such taxes. The Company will accept whole shares of Common Stock of equivalent Fair Market Value in payment of the Company's minimum statutory withholding tax obligations if You elect to make payment in shares.

8. Compliance with Law . The Company will make reasonable efforts to comply with all applicable federal and state securities laws. However, no shares or other securities will be issued pursuant to this Agreement if their issuance would result in a violation of any such law. If at any time the Committee determines, in its discretion, that the listing, registration or qualification of any shares subject to this Grant upon any securities exchange or under any state or Federal law, or the consent or approval of any government regulatory body, is necessary or desirable as a condition of, or in connection with, the granting of this Grant or the issue of shares hereunder, no rights under the Grant may be exercised and shares of Common Stock may not be issued pursuant to the Grant, in whole or in part, unless such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Committee and any delay will in no way affect the dates of vesting or forfeiture of the Grant.

9. Amendments; Integrated Agreement . This Agreement may only be amended in a writing signed by You and an officer of the Company duly authorized to do so. This Agreement contains the entire agreement of the parties relating to the subject matter of this Agreement and supersedes and replaces all prior agreements and understandings with respect to such subject matter, and the parties have made no agreements, representations or warranties relating to the subject matter of this Agreement which are not set forth herein.

10. Relation to Plan; Interpretation . The Grant is granted under the Plan, and the Grant and this Agreement are each subject to the terms and conditions of the Plan, which is

incorporated in this Agreement by reference. In the event of any inconsistent provisions between this Agreement and the Plan, the provisions of the Plan control. References to Sections are to Sections of this Agreement unless otherwise noted. The titles to Sections of this Agreement are intended solely for convenience and no provision of this Agreement is to be construed by reference to the title of any Section.

11. Notices . Any notice hereunder by You will be given to the Senior Vice President Human Resources and the Corporate Secretary in writing and such notice and any payment by You will be deemed duly given or made only upon receipt by the Corporate Secretary at Barnes Group Inc., 123 Main Street, Bristol, Connecticut 06010, U.S.A., or at such other address as the Company may designate by notice to You. Any notice to You will be in writing and will be deemed duly given if delivered to You in person or mailed or otherwise delivered to You at such address as You may have on file with the Company from time to time.

12. Interpretation and Disputes . This Agreement will be interpreted and construed, and all determinations will be made, by the Committee, and any such interpretation, construction or determination will be final, binding and conclusive on the Company and You. In the event there is any inconsistency between the provisions of this Agreement and the Plan, the provisions of the Plan will govern.

Any claim, demand or controversy arising from such interpretation, construction or determination by the Committee shall be submitted first to a mediator in accordance with the rules of the American Arbitration Association ("AAA") by submitting a mediation request to the Administrator within 30 days of the date of the Committee's interpretation or construction. The mediation

process shall conclude upon the earlier of: (a) the resolution of the dispute; (b) a determination by either the mediator or one or more of the parties that all settlement possibilities have been exhausted and there is no possibility of resolution; or (c) 30 days have passed since the filing of a request to mediate with the AAA. A party who has previously submitted a dispute to mediation, and which dispute has not been resolved, may submit such dispute to binding arbitration pursuant to the rules of the AAA. Any arbitration proceeding for such dispute must be initiated within 14 days from the date that the mediation process has concluded. The prevailing party shall recover its costs and reasonable attorney's fees incurred in such arbitration proceeding. You and the Company specifically understand and agree that the failure of a party to timely initiate a proceeding hereunder

shall bar the party from any relief or other proceeding and any such dispute shall be deemed to have been finally and completely resolved. All mediation and arbitration proceedings shall be conducted in Bristol, Connecticut or such other location as the Company may determine and You agree that no objection shall be made to such jurisdiction or venue, as a forum non conveniens or otherwise. The arbitrator's authority shall be limited to resolution of the legal disputes between the parties and the arbitrator shall not have authority to modify or amend this Agreement or the Committee's interpretation or construction thereof, or abridge or enlarge rights available under applicable law. Any court with jurisdiction over the parties may enforce any award made hereunder.

13. General .

(a) Nothing in this Agreement confers upon You any right to continue in the employ or other service of the Company or any Subsidiary, or limit in any manner the right of the Company, its stockholders or any Subsidiary to terminate Your employment or adjust Your compensation.

(b) You have no rights as a stockholder with respect to any shares that may be issued pursuant to this Agreement until the date of issuance to You of a stock certificate for such shares or the date of a credit for such shares in a brokerage account in Your name.

(c) This Agreement is binding upon the successors and assigns of the Company and upon Your Beneficiary, estate, legal representatives, legatees and heirs.

(d) This Agreement is governed by and construed in accordance with the laws of the State of Delaware, without regard to the principles of conflicts of laws thereof.

(e) If applicable, any shares that may be earned pursuant to this Agreement are intended to qualify as "performance-based compensation" within the meaning of Section 162(m)(4)(C) of the Code. Any provision of this Agreement that would prevent any such shares from so qualifying will be administered, interpreted and construed to carry out such intention, and any provision that cannot be so administered, interpreted and construed will to that extent be disregarded.

14. Definitions .

(a) "Cause" means (i) Your willful and continued failure to substantially perform Your duties with the Company (other than any such failure resulting from the Your incapacity due to physical or mental illness) or (ii) Your willful engaging in conduct which is demonstrably and materially injurious to the Company or its Subsidiaries, monetarily or otherwise.

(b) "Disability" means, for Options, "disability" as defined in the Company's long-term disability plan as in effect from time to time (or, if that plan is not in effect at the time in question, as it was last in effect). For Restricted Stock Units and Performance Shares, "Disability" means "disability" as set forth in Treasury Regulation Section 1.409A-3(i)(4)(i).

(c) "Good Reason" means "good reason" as defined in the Company's Severance Plan or in an employment or severance agreement if applicable.

(d) "Retirement" means retirement from the Company or a Subsidiary on or after the first anniversary of the Grant Date and at age 62 or later with a minimum of 5 full years of service with the Company and/or its

Subsidiaries.

(e) “Separation from Service” means a “separation from service with the employer” within the meaning of Treasury Regulation Section 1.409A-1(h), where the

“employer” means the Company and all corporations and trades or businesses with which the Company would be considered a single employer under Section 414(b) or Section 414(c) of the Code (as determined in accordance with the first sentence of Treasury Regulation Section 1.409A-1(h)(3)).

(f) “Separation from Service by Retirement” means a Separation from Service from the Company or a Subsidiary on or after the first anniversary of the Grant Date and at age 62 or later with a minimum of 5 full years of service with the Company and/or its Subsidiaries under circumstances that do not constitute Cause.

BARNES GROUP INC.

PERFORMANCE-LINKED BONUS PLAN
For Selected Executive Officers

(as amended on February 9, 2016, effective with respect to awards for 2017 and subsequent years)

SECTION 1. PURPOSE

The Performance-Linked Bonus Plan For Selected Executive Officers (the "Plan") is designed to provide cash incentive compensation opportunities to key executives that contribute to the success of Barnes Group Inc. (the "Company") and its subsidiaries. All employees (a) who are executive officers of the Company, (b) whose incentive compensation for any taxable year(s) of the Company commencing on or after January 1, 2001 that the Committee (as hereafter defined) anticipates may not be deductible by the Company in whole or in part but for compliance with Section 162(m)(4)(C) of the Internal Revenue Code of 1986 as amended (the "Code"), and (c) who are selected to participate in the Plan, including members of the Board of Directors of the Company who are such employees, are eligible to participate in the Plan.

SECTION 2. ADMINISTRATION

The Plan shall be administered by the Compensation and Management Development Committee of the Board of Directors of the Company, or its successor (the "Committee"). The Committee shall consist of not less than two directors who are not employees of the Company or any subsidiary of the Company and shall be comprised solely of directors who are "outside directors" within the meaning of Section 162(m)(4)(C)(i) of the Code. The Committee shall have authority, subject to the provisions of the Plan, to: select employees to participate in the Plan; establish and administer the Performance (as hereafter defined) objectives and the Award (as hereafter defined) opportunities applicable to each participant and certify whether the goals have been attained; construe and interpret the Plan and any agreement or instrument entered into under the Plan; establish, amend, and waive rules and regulations for the Plan's administration; and make all other determinations which may be necessary or advisable for the administration of the Plan. Any determination by the Committee pursuant to the Plan shall be final, binding and conclusive on all employees and participants and anyone claiming under or through any of them. Amounts paid or projected to be paid under the Plan are referred to herein as "Awards."

SECTION 3. DEFINITIONS

3.1 "Award Period" shall mean the period of time within which Performance is measured for the purpose of determining whether an Award has been earned.

3.2 "CEO" shall mean the President and Chief Executive Officer of the Company.

3.3 "Covered Employee" shall have the meaning set forth in Section 162(m) of the Code.

3.4 "Group" shall mean the consolidated Company, any consolidated group, Company subsidiary or any business unit, business segment, division, or similar collection of cost centers, profit centers, or international subsidiaries that may be recognized as such by the Committee.

3.5 "Individual Target" shall mean a percentage of salary for each individual participating in the Plan, or a percentage of the Performance Award Pool, as applicable. The Committee will establish the Individual Target for each participant no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed.

3.6 "Maximum" shall mean a Performance level at or above which the amount paid or projected to be paid for an Award Period is equal to such maximum percentage of the Individual Targets as may be established by the Committee for each participant no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed.

3.7 “Performance” shall mean the performance objectives established by the Committee in advance, in writing, in terms of an objective formula or standard, with respect to a Group for an Award Period, for the purpose of determining whether, and to what extent, an Award has been earned by the Group for such Award Period. The Performance objective or objectives applicable to any Award shall be based on a relative comparison of entity performance to the performance of a comparator group, index or other external measure, targeted levels of, targeted levels of return on, or targeted levels of growth for, including any percentage increase or decrease of such targeted level, any one or more of the following performance measures on a consolidated Company, consolidated group, subsidiary, segment, business unit or divisional level basis, as the Committee may specify: earnings per share; earnings before taxes; earnings before interest and taxes; earnings before interest, taxes, depreciation and amortization; net income; operating income; performance profit (operating income minus an allocated charge approximating the Company’s cost of capital, before or after tax); operating profit; gross profit; gross margin; operating margin and statistics; improvement in or attainment of expense levels; cost reduction; debt reduction; net debt reduction; revenue; working capital; net working capital; days working capital; total assets; net assets; stockholders’ equity; debt to capital; cash flow; cash conversion; free cash flow (net cash from operations less CAPEX); dividend net income; return on equity; return on capital; return on assets; return on invested capital; return on capital employed; ratio of operating earnings to capital spending; internal rate of return; liquidity measurements; leverage; financing and other capital raising transactions; cost of capital; customer satisfaction; employee satisfaction; customer growth; sales; net sales; gross sales; attainment of strategic or operating initiatives; operating efficiencies; productivity improvement and productivity ratios; inventory turns; comparison with various stock market indices; stock price; market share; and total stockholder return.

3.8 “Performance Award Pool” shall mean an unfunded pool that may be established by the Committee, for purposes of making Awards as a result of Performance in an Award Period, in accordance with Section 5. If the Committee chooses to establish a Performance Award Pool for any Award Period, the Committee will establish the Performance Award Pool for such Award Period no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed.

3.9 “Target” shall mean a Performance level above the Threshold and below the Maximum at which the amount paid or projected to be paid for an Award Period is equal to 100% of the Individual Targets for the members of the corresponding Group.

3.10 “Threshold” shall mean a Performance level at or above which an Award is earned for an Award Period. For Threshold Performance, the amount paid or projected to be paid for an Award Period is equal to such minimum percentage of the Individual Targets as may be established by the Committee no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed.

SECTION 4. GROUP PERFORMANCE LEVELS

4.1 The Committee shall establish the Performance criteria for each Award Period. The Performance criteria shall be determined in accordance with generally accepted accounting principles, except to the extent the Committee directs otherwise, and shall be designated within the period ending on the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed. The Committee may specify, during such period, that the Performance criteria will be adjusted by any or all of the following items: unusual or infrequently occurring items, effects of discontinued operations, effects of restructuring activities, effects of accounting changes, effects of currency or exchange rate fluctuations, effects of non-operating items; effects of unusual or infrequently occurring financing activities or transactions,

effects of acquisitions and acquisition expenses, and effects of divestitures and divestiture expenses. With respect to the foregoing, any such Performance criterion or combination of such criteria may apply to the participant’s Award opportunity in its entirety or to any designated portion or portions of the Award opportunity, as the Committee may specify. The terms, formula and Performance criteria specified by the Committee shall preclude discretion to increase the amount of the Award that would otherwise be due upon attainment of the Performance level.

4.2 Whether or not specified by the Committee pursuant to Section 4.1, and subject to the Committee’s exercise of negative discretion pursuant to Section 7.1, prior to payment of a participant’s Award for an Award Period,

any item subject to specification by the Committee pursuant to Section 4.1 shall be included or excluded, in whatever manner that individually or collectively produces the highest Award, to the extent that any of such items affect any Performance criterion applicable to the Award (including but not limited to the criterion of earnings per share).

4.3 If an Award Period is a calendar year, prior to March 31, the Committee shall establish the Threshold, Target and Maximum for each Group, and the method for computing the Award for each participant in the Group for such year if the Threshold, Target or Maximum is attained. If an Award Period is not a calendar year, then the Committee shall establish in writing no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed, the Threshold, Target and Maximum for

each Group and the method for computing the Award for each participant in the Group for such Award Period if the Threshold, Target or Maximum is attained. The Committee may also designate one or more intermediate levels of Performance between the Threshold and the Target, and the Target and the Maximum, for a Group, and the percentage of the corresponding Individual Targets that will be available for payment as an Award if Performance equals such intermediate level.

SECTION 5. PERFORMANCE AWARD POOL

The actual amount of such Performance Award Pool shall be based upon the achievement of a Performance objective or objectives during the applicable Award Period. The Committee may specify the amount of the Performance Award Pool as a percentage of any such Performance objectives, a percentage thereof in excess of the Threshold, or another amount which need not bear a strictly mathematical relationship to such Performance objective. The portion of the Performance Award Pool actually awarded as a result of Performance in an Award Period need not be 100% of the Performance Award Pool and shall be subject to the Committee's right to exercise negative discretion pursuant to Section 7.1.

SECTION 6. PARTICIPANTS

If an Award Period is a calendar year, prior to March 31, the Committee shall designate the eligible participants and the respective Groups in which they shall participate. The CEO shall participate in the Executive Office Group for each Award Period. If an Award Period is not a calendar year, then the Committee shall designate the eligible participants, and the respective Groups, no later than the earlier of (a) 90 days after the start of the Award Period or (b) a date on which no more than one fourth of the Award Period has elapsed. Except for (i) participants in the Plan during an Award Period who retire, die or become permanently disabled, in any case, before Awards are paid for that Award Period pursuant to Section 9, whose Awards for that Award Period shall be prorated to the date of such retirement, death or permanent disability if it occurs before the last day of that Award Period, and
(ii) participants in the Plan during an Award Period whose employment is involuntarily terminated by the Company other than for cause (as determined by the Committee) on or after November 1 of that Award Period and before Awards are paid for that Award Period pursuant to Section 9, whose Awards for that Award Period shall be prorated to the date of such termination if such termination occurs before the last day of that Award Period, a person must be employed by the Company or one of its subsidiaries on the date of payment of an Award in order to be eligible to receive an Award. For the avoidance of doubt, a participant's Award for any Award Period, including but not limited to an Award that is to be prorated pursuant to the preceding sentence, (A) shall be determined in accordance with the objective formula or standard that was established by the Committee for the participant's Group for that Award Period in accordance with the Plan, based on the level of Performance attained in that Award Period, and (B) shall be subject to any exercise of "negative discretion" by the Committee, within the meaning of Treasury Regulation Section 1.162- 27(e)(2)(iii)(A), and (C) shall be paid at the time and subject to the conditions specified in Section 9.

SECTION 7. AWARDS

7.1 After the end of the Award Period and based on the final Performance of each Group, the Committee shall determine the Award for each participant, based in all instances on the participant's Individual Target and the Performance level achieved. No provision of the Plan shall preclude the Committee from exercising negative discretion with respect to any Award hereunder, within the meaning of Treasury Regulation Section 1.162-27(e)(2)(iii)(A).

7.2 Subject to Section 8, the Committee shall have the authority to refrain from making an Award to any participant.

SECTION 8. LIMITATIONS

Notwithstanding anything in the Plan to the contrary, no Award in excess of the calculated Award shall be made to any Covered Employee under any circumstances.

Awards at Target shall be greater than Awards at Threshold and less than Awards at Maximum.

Regulations under Section 162(m) of the Code require that a maximum individual Award be established for any Awards to Covered Employees that are intended to qualify as performance-based compensation. For purposes of qualifying Awards as performance-based compensation under such regulations, notwithstanding anything in the Plan to the contrary, no Award in excess of $7 million shall be paid to any Covered Employee for services rendered in any calendar year.

SECTION 9. PAYMENT OF AWARDS

Payment of any Award shall be contingent upon approval by the stockholders of the Company, prior to payment, of the material terms under which the Award is to be paid, in accordance with Section 162(m)(4)(C)(ii) of the Code and the related Treasury regulations. Unless and until such stockholder approval is obtained, no Award shall be paid.

Payment of any Award shall also be contingent upon the Committee's certifying in writing that the Performance level, the applicable Performance objectives related to the funding of the Performance Award Pool (if applicable), and any other material terms applicable to such Award were in fact satisfied, in accordance with Section 162(m)(4)(C)(iii) of the Code and the related Treasury regulations. Unless the Committee so certifies, such
Award shall not be paid.

Awards shall be paid within the 2 1/2 months that immediately follow the expiration of the Award Period (i.e., in the case of an Award Period that is a calendar year, on or after January 1 and on or before March 15 of the following calendar year). Awards shall be paid in cash unless otherwise decided by the Committee.

SECTION 10. GENERAL

10.1 The interpretation of the Plan by the Committee and its decisions on all questions arising under the Plan shall be conclusive and binding on all Plan participants.

10.2 The Plan may be amended at any time, including retroactively, by the Committee.

10.3 The Plan supersedes all prior incentive plans, including without limitation the Management Incentive Compensation Plan, for all participants, effective as of January 1, 2001 for the Award Period of calendar year 2001 and Award Periods thereafter.

10.4 Any provision of the Plan to the contrary notwithstanding, (a) Awards to Covered Employees under the Plan are intended to qualify as performance-based compensation under Section 162(m)(4)(C) of the Code, and (b) any provision of the Plan that would prevent an Award to any Covered Employee from so qualifying shall be administered, interpreted and construed to carry out such intention and any provision that cannot be so administered, interpreted and construed shall, to that extent, be disregarded. No provision of the Plan, nor the selection of any eligible employee to participate in the Plan, shall constitute an employment agreement or affect the duration of any participant's employment, which shall remain "employment at will" unless an employment agreement between the Company and the participant provides otherwise. Both the participant and the Company shall remain free to terminate employment at any time to the same extent as if the Plan had not been adopted.

10.5 All Awards are intended to qualify as short-term deferrals under Treasury Regulation Section 1.409A-1(b) (4). The Plan shall

be administered, interpreted and construed to carry out that intention, and any provision of the Plan that cannot be so administered, interpreted and construed shall to that extent be disregarded. However, the Company does not represent, warrant or guarantee that any Award will qualify as a short-term deferral, nor does the Company make any other representation, warranty or guaranty to any participant as to the tax consequences of any Award or of participation in the Plan.

EXHIBIT 21

BARNES GROUP INC.

CONSOLIDATED SUBSIDIARIES

as of December 31, 2016

Name	Jurisdiction of Incorporation
AS Monterrey, S.de R.L. de C.V.	Mexico
Associated Spring (Tianjin) Company, Ltd.	China
Associated Spring (UK) Ltd.	United Kingdom
Associated Spring Asia Pte. Ltd.	Singapore
Associated Spring Corporation	United States - Connecticut
Associated Spring do Brasil Ltda.	Brazil
Associated Spring Mexico, S.A.	Mexico
Associated Spring Raymond (Shanghai) Co., Ltd.	China
Associated Spring Raymond GmbH	Germany
Barnes Corporation	United States - Connecticut
Barnes Financing Delaware LLC	United States - Delaware
Barnes Group (Bermuda) Limited	Bermuda
Barnes Group (Delaware) LLC	United States - Delaware
Barnes Group (Germany) GmbH	Germany
Barnes Group (Scotland) Limited	Scotland
Barnes Group (Thailand) Ltd.	Thailand
Barnes Group (U.K.) 2 Limited	United Kingdom
Barnes Group (U.K.) Limited	United Kingdom
Barnes Group Acquisition GmbH	Germany
Barnes Group Canada Corp	Canada
Barnes Group Finance Company (Bermuda) Limited	Bermuda
Barnes Group Finance Company (Delaware)	United States - Delaware
Barnes Group Holding LLC	United States - Delaware
Barnes Group Inc.	United States - Alabama
Barnes Group Luxembourg (No. 1) S.à r.l.	Luxembourg
Barnes Group Luxembourg (No. 2) S.á r.l.	Luxembourg
Barnes Group Spain, S.R.L.	Spain
Barnes Group Switzerland GmbH	Switzerland
Barnes Industrial Group India Private Limited	India
Barnes Korea Ltd.	Korea
Blitz F16-34 GmbH	Germany
Curtiss Industries (U.K.) Limited	United Kingdom
Foboha (Germany) GmbH	Germany
Foboha (Switzerland) AG	Switzerland
Foboha US, Inc.	United States - Delaware

Foboha (Suzhou) Co. Ltd	China
Heinz Hänggi GmbH, Stanztechnik	Switzerland
HPE S.p.A.	Italy
Manner Hong Kong Limited	Hong Kong
männer Japan Co. Ltd.	Japan
Manner USA, Inc.	United States - Georgia
Otto Männer GmbH	Germany
Otto Männer Immobilien GmbH	Germany
Otto Männer Innovation GmbH	Germany
Otto Männer Präzisionsformenbau AG, Schweiz	Switzerland
Priamus System Technologies AG	Switzerland
Priamus System Technologies GmbH	Germany
Priamus System Technologies LLC	United States - Ohio
Raymond Distribution-Mexico, S.A. de C.V.	Mexico
Ressorts SPEC SAS	France
Schmidl Werkzeug-und Vorrichtungsbau GmbH & Co. KG	Germany
Seeger-Orbis GmbH & Co. OHG	Germany
Strömsholmen AB	Sweden
Synventive Acquisition BV	Netherlands
Synventive Acquisition GmbH	Germany
Synventive Acquisition Inc.	United States - Delaware
Synventive Acquisition UK Ltd.	United Kingdom
Synventive Acquisition Unlimited	United Kingdom
Synventive BV	Netherlands
Synventive Fertigungstechnik GmbH	Germany
Synventive Holding BV	Netherlands
Synventive Holding GmbH	Germany
Synventive Holding Limited	United Kingdom
Synventive Holding SAS	France
Synventive Molding Solutions (Suzhou) Co., Ltd.	China
Synventive Molding Solutions BV	Netherlands
Synventive Molding Solutions Canada, Inc.	Canada
Synventive Molding Solutions Co., Ltd.	Hong Kong
Synventive Molding Solutions GmbH	Germany
Synventive Molding Solutions JBJ Private Limited	India
Synventive Molding Solutions K.K.	Japan
Synventive Molding Solutions LDA	Portugal
Synventive Molding Solutions Limited	United Kingdom
Synventive Molding Solutions LLC	United States - Delaware
Synventive Molding Solutions Ltda	Brazil
Synventive Molding Solutions Pte Ltd.	Singapore

Synventive Molding Solutions S.R.L.	Italy
Synventive Molding Solutions s.r.o.	Czech Republic
Synventive Molding Solutions SAS	France
Synventive Molding Solutions SL	Spain
Synventive Molding Solutions, Inc.	United States - Delaware
Synventive Parent Inc.	United States - Delaware
The Wallace Barnes Company	United States - Connecticut
Thermoplay Brasil Sistemas de Injecao Ltda	Brazil
Thermoplay Deutschland GmbH	Germany
Thermoplay France S.a.r.l.	France
Thermoplay Hot Runner Systems (Beijing) Co. Ltd	China
Thermoplay India Private Limited	India
Thermoplay Portugal Unipessoal Lda	Portugal
Thermoplay S.p.A.	Italy
Thermoplay U.K. Ltd.	United Kingdom
Windsor Airmotive Asia Pte. Ltd.	Singapore

The foregoing does not constitute a complete list of all subsidiaries of the registrant. The subsidiaries that have been omitted do not, if considered in the aggregate as a single subsidiary, constitute a “Significant Subsidiary” as defined by the Securities and Exchange Commission.

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-205952, 333-196013, 333-166975, 333-179643, 333-150741, and 333-133597) of Barnes Group Inc. of our report dated February 21, 2017 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PRICEWATERHOUSECOOPERS LLP

Hartford, Connecticut
February 21, 2017

EXHIBIT 31.1

CERTIFICATION

I, Patrick J. Dempsey, certify that:

1. I have reviewed this annual report on Form 10-K for the period ended December 31, 2016 of Barnes Group Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 21, 2017

/S/ PATRICK J. DEMPSEY

Patrick J. Dempsey
President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION

I, Christopher J. Stephens, Jr., certify that:

1. I have reviewed this annual report on Form 10-K for the period ended December 31, 2016 of Barnes Group Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 21, 2017

/s/ C HRISTOPHER J. S TEPHENS, J R.

Christopher J. Stephens, Jr.
Chief Financial Officer

EXHIBIT 32

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350 AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Barnes Group Inc. (the "Company") on Form 10-K for the period ending December 31, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 that:

1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/S/ PATRICK J. DEMPSEY

Patrick J. Dempsey
President and Chief Executive Officer
February 21, 2017

/s/ CHRISTOPHER J. STEPHENS, JR.

Christopher J. Stephens, Jr.
Chief Financial Officer
February 21, 2017