

**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

or

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
1-11978



The Manitowoc Company, Inc.

(Exact name of registrant as specified in its charter)

Wisconsin

(State or other jurisdiction
of incorporation)

39-0448110

(I.R.S. Employer
Identification Number)

**2400 South 44th Street,
Manitowoc, Wisconsin**

(Address of principal executive offices)

54220

(Zip Code)

(920) 684-4410

(Registrant's telephone number, including area code)
Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class

Common Stock, \$.01 Par Value
Common Stock Purchase Rights

Name of each exchange on which registered

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 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 website, 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 the definitions of "large accelerated filer, accelerated filer, and smaller reporting Company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

(Do not check if a smaller reporting company)

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 on June 30, 2016, of the registrant's Common Stock held by non-affiliates of the registrant was approximately \$744 million based on the closing per share price of \$5.45 on that date.

The number of shares outstanding of the registrant's Common Stock as of January 31, 2017, the most recent practicable date, was 140,190,685.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement, to be prepared and filed for the 2017 Annual Meeting of Shareholders (the "2017 Proxy Statement"), are incorporated by reference in Part III of this report.

See Index to Exhibits immediately following the signature page of this report, which is incorporated herein by reference.

THE MANITOWOC COMPANY, INC.
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For the Year Ended December 31, 2016

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Cautionary Statements Regarding Forward-Looking Information

All of the statements in this Annual Report on Form 10-K, other than historical facts, are forward-looking statements, including, without limitation, the statements made in the “Management's Discussion and Analysis of Financial Condition and Results of Operations,” particularly under the caption “Market Conditions and Outlook.” As a general matter, forward-looking statements are those focused upon anticipated events or trends, expectations and beliefs relating to matters that are not historical in nature. The words “could,” “should,” “feel,” “anticipate,” “aim,” “preliminary,” “expect,” “believe,” “estimate,” “intend,” “intent,” “plan,” “will,” “foresee,” “project,” “forecast,” or the negative thereof or variations thereon, and similar expressions identify forward-looking statements.

The Private Securities Litigation Reform Act of 1995 provides a “safe harbor” for these forward-looking statements. In order to comply with the terms of the safe harbor, The Manitowoc Company, Inc. (the “Company” or “Manitowoc”) notes that forward-looking statements are subject to known and unknown risks, uncertainties and other factors relating to the Company's operations and business environment, all of which are difficult to predict and many of which are beyond the control of the Company. These known and unknown risks, uncertainties and other factors could cause actual results to differ materially from those matters expressed in, anticipated by or implied by such forward-looking statements. These risks, uncertainties and other factors include, but are not limited to:

- unanticipated changes in revenues, margins, costs, and capital expenditures;
- the ability to significantly improve profitability;
- potential delays or failures to implement specific initiatives within the restructuring program;
- issues relating to the ability to timely and effectively execute on manufacturing strategies, including issues relating to plant closings, new plant start-ups, and/or consolidations of existing facilities and operations, and its ability to achieve the expected benefits from such actions;
- the ability to direct resources to those areas that will deliver the highest returns;
- uncertainties associated with new product introductions, the successful development and market acceptance of new and innovative products that drive growth;
- the ability to focus on customers, new technologies, and innovation;
- the ability to focus and capitalize on product quality and reliability;
- the ability to increase operational efficiencies across Manitowoc's businesses and to capitalize on those efficiencies;
- the ability to capitalize on key strategic opportunities and the ability to implement Manitowoc's long-term initiatives;
- the ability to generate cash and manage working capital consistent with Manitowoc's stated goals;
- the ability to convert orders and order activity into sales and the timing of those sales;
- pressure of financing leverage;
- foreign currency fluctuation and its impact on reported results and hedges in place with Manitowoc;
- changes in raw material and commodity prices;
- unexpected issues associated with the quality of materials, components and products sourced from third parties and the ability to successfully resolve those issues;
- unexpected issues associated with the availability and viability of suppliers;
- the risks associated with growth;
- geographic factors and political and economic conditions and risks;
- actions of competitors;
- changes in economic or industry conditions generally or in the markets served by Manitowoc;
- unanticipated changes in customer demand, including changes in global demand for high-capacity lifting equipment, changes in demand for lifting equipment in emerging economies, and changes in demand for used lifting equipment;
- global expansion of customers;
- the replacement cycle of technologically obsolete cranes;
- the ability of Manitowoc's customers to receive financing;
- efficiencies and capacity utilization of facilities;
- issues related to workforce reductions and potential subsequent rehiring;
- work stoppages, labor negotiations, labor rates, and temporary labor costs;
- government approval and funding of projects and the effect of government-related issues or developments;
- the ability to complete and appropriately integrate restructurings, consolidations, acquisitions, divestitures, strategic alliances, joint ventures, and other strategic alternatives;
- realization of anticipated earnings enhancements, cost savings, strategic options and other synergies, and the anticipated timing to realize those savings, synergies, and options;
- impairment of goodwill and/or intangible assets;
- unanticipated issues affecting the effective tax rate for the year;
- unanticipated changes in the capital and financial markets;
- risks related to actions of activist shareholders;

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- changes in laws throughout the world;
- natural disasters disrupting commerce in one or more regions of the world;
- risks associated with data security and technological systems and protections;
- acts of terrorism; and
- risks and other factors cited in Manitowoc's filings with the United States Securities and Exchange Commission.

These statements reflect the current views and assumptions of management with respect to future events. The Company does not undertake, and hereby disclaims, any duty to update these forward-looking statements, even though its situation and circumstances may change in the future. Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date of this report. The inclusion of any statement in this report does not constitute an admission by the Company or any other person that the events or circumstances described in such statement are material.

PART I

Item 1. BUSINESS

GENERAL

The Manitowoc Company, Inc. (“Manitowoc”, “MTW”, the “Company”, “we”, and “us”) was founded in 1902 and has over a 110-year tradition of providing high-quality, customer-focused products and support services to our markets, and for the year ended December 31, 2016, we had net sales of approximately \$1.6 billion. MTW is one of the world’s leading providers of engineered lifting equipment for the global construction industry. We design, manufacture, market and support one of the most comprehensive product lines of mobile telescopic cranes, tower cranes, lattice-boom crawler cranes and boom trucks. Our Crane products are principally marketed under the Manitowoc, Grove, Potain and National Crane brand names. We support customers globally with financing and leasing options through Manitowoc Finance, utilizing third-party leasing companies. We serve a wide variety of customers, including dealers, rental companies, contractors and government entities, across the petrochemical, industrial, commercial, power and utilities, infrastructure and residential end markets. Additionally, our Manitowoc Crane Care offering leverages MTW’s installed base of approximately 140,000 cranes to provide aftermarket parts and services to enable our customers to manage their fleets most effectively and improve their return on investment. Due to the ongoing and predictable maintenance needed by cranes, as well as the high cost of crane downtime, Crane Care provides us with a consistent stream of recurring aftermarket revenue. We are a Wisconsin corporation, and our principal executive offices are located at 2400 South 44th Street, Manitowoc, Wisconsin 54220.

During the first quarter of 2016, the Board of Directors of The Manitowoc Company, Inc. approved the tax-free Spin-Off of the Company’s former foodservice business (“MFS” or “Foodservice”) into an independent, public company (the “Spin-Off”). To effect the Spin-Off, the Board declared a pro rata dividend of MFS common stock to MTW’s stockholders of record as of the close of business on February 22, 2016 (the “Record Date”), and the Company paid the dividend on March 4, 2016. Each MTW stockholder received one share of MFS common stock for every share of MTW common stock held as of the close of business on the Record Date.

In these Consolidated Financial Statements, unless otherwise indicated, references to Manitowoc, MTW, the Company, we and us refer to The Manitowoc Company, Inc. and its consolidated subsidiaries after giving effect to the Spin-Off, or, in the case of information as of dates or for periods prior to the Spin-Off, the consolidated entities of the Crane business and certain other assets and liabilities that were historically held at the MTW corporate level but were specifically identifiable and attributable to the Crane business.

As a result of the Spin-Off, the Consolidated Financial Statements and related financial information reflect MFS operations, assets, liabilities and cash flows as discontinued operations for all periods presented.

See Note 3, “Discontinued Operations,” for further details concerning the Spin-Off and other transactions being reported as discontinued operations.

THE MANITOWOC WAY

The Manitowoc Way is a culture of continuous improvement which encompasses the core values and growth strategies that add value for the Company’s key stakeholders - customers, shareholders and employees. Customers are the priority of The Manitowoc Way as the Company builds strong relationships by listening to them, understanding their needs and quickly responding with creative products and services. As shareholders understand the value-driven relationship the Company shares with its customers, they continue to invest the resources the Company needs to grow.

Employee commitment to the goals and vision of The Manitowoc Way enable the Company to use those resources to create a stronger organization. The Manitowoc Way empowers employees to develop innovative products and services that meet the needs of the Company’s customers. The culture of The Manitowoc Way fosters employee engagement to quickly recognize opportunities and to capitalize on them to add value. Innovation and velocity are the core of The Manitowoc Way, driving the Company’s differentiation from its competitors.

PRODUCTS AND SERVICES

The Company designs, manufactures and distributes a diversified line of crawler-mounted lattice-boom cranes, which we sell under the Manitowoc brand name. We also design and manufacture a diversified line of top-slewing and self-erecting tower cranes, which we sell under the Potain brand name. We design and manufacture mobile telescopic cranes, which we sell under the Grove brand name and a comprehensive line of hydraulically powered telescopic boom trucks, which we sell under the National Crane brand name. We also provide crane product parts and services and crane rebuilding, remanufacturing and

training services, which are delivered under the Manitowoc Crane Care brand name. In some cases our products are manufactured for us or distributed for us under strategic alliances. Our crane products are used in a wide variety of applications throughout the world, including energy production/distribution and utilities, petrochemical and industrial projects, infrastructure applications, such as road, bridge and airport construction, plus commercial and residential construction. Many of our customers purchase one or more cranes together with several attachments to permit use of the crane in a broader range of lifting applications and other operations.

Lattice-boom cranes. Under the Manitowoc brand name we design, manufacture and distribute lattice-boom crawler cranes. Lattice-boom cranes consist of a lattice-boom, which is a fabricated, high-strength steel structure that has four chords and tubular lacings, mounted on a crawler base. Lattice-boom cranes weigh less and provide higher lifting capacities than a mobile telescopic crane of similar boom length. The lattice-boom cranes are the only category of crane that can pick and move simultaneously with a full-rated load. The lattice-boom sections, together with the crane base, are transported to and erected at a project site.

Our lattice-boom cranes are used to lift material and equipment in a wide variety of applications and end markets, including heavy construction, bridge and highway, infrastructure and energy-related projects. These cranes are also used by the value-added crane rental industry, which serves all of the above end markets. Lattice boom cranes are produced in the U.S.

We also offer our lattice-boom crawler crane customers various attachments that provide our cranes with greater capacity in terms of height, movement and lifting. Our principal attachments are: MAX-ER™ attachments, luffing jibs and RINGER™ attachments. The MAX-ER™ is a trailing counterweight, heavy-lift attachment that dramatically improves the reach, capacity and lift dynamics of the basic crane to which it is mounted. It can be transferred between cranes of the same model for maximum economy and occupies less space than competitive heavy-lift systems. A luffing jib is a fabricated structure similar to, but smaller than, a lattice-boom. Mounted at the tip of a lattice-boom, a luffing jib easily adjusts its angle of operation permitting one crane with a luffing jib to make lifts at additional locations on the project site. It can be transferred between cranes of the same model to maximize utilization. A RINGER™ attachment is a high-capacity lift attachment that distributes load reactions over a large area to minimize ground-bearing pressure. It can also be more economical than transporting and setting up a larger crane.

Tower cranes. Under the Potain brand name, we design and manufacture tower cranes utilized primarily in the energy, building and construction industries. Tower cranes offer the ability to lift and distribute material at the point of use, more quickly and accurately than other types of lifting machinery, without utilizing substantial square footage on the ground. Tower cranes include a stationary vertical mast and a horizontal jib with a counterweight, which is placed near the vertical mast. A cable runs through a trolley which is mounted on the jib, enabling the load to move along the jib. The jib rotates 360 degrees, thus increasing the crane's work area. Unless using a remote control device, operators occupy a cabin, located where the jib and mast meet, which provides superior visibility above the worksite. We offer a complete line of tower crane products, including top slewing, luffing jib, topless, self-erecting and special cranes for dams, harbors and other large building projects. Top-slewing cranes are the most traditional form of tower cranes. Self-erecting cranes are bottom-slewing cranes which have a counterweight located at the bottom of the mast and are able to be erected, used and dismantled on job sites without assist cranes.

Top-slewing tower cranes have a tower and multi-sectioned horizontal jib. These cranes rotate from the top of their mast and can increase in height with the project. Top-slewing cranes are transported in separate pieces and assembled at the construction site in one to three days depending on the height. These cranes are generally sold to medium to large energy, building and construction groups, as well as to rental companies. These cranes are produced in France, Portugal, India and China.

Topless tower cranes are a type of top-slewing crane and, unlike all others, have no cathead or jib tie-bars on the top of the mast. The cranes are utilized primarily when overhead height is constrained or in situations where several cranes are installed close together. Topless tower cranes are produced in France, Portugal, India and China.

Luffing jib tower cranes, which are a type of top-slewing crane, have an angled rather than horizontal jib. Unlike other tower cranes which have a trolley that controls the lateral movement of the load, luffing jib cranes move their load by changing the angle of the jib. The cranes are utilized primarily in urban areas where space is constrained or in situations where several cranes are installed close together. Luffing tower cranes are produced in France and China.

Self-erecting tower cranes are mounted on axles or transported on a trailer. The lower segment of the range unfolds in four sections, two for the mast and two for the jib. The smallest of our models unfolds in less than eight minutes; larger models erect in a few hours. Self-erecting cranes rotate from the bottom of their mast and are utilized primarily in low to medium rise construction and residential applications. Self-erecting tower cranes are produced in France and Italy.

Mobile telescopic cranes . Under the Grove brand name, we design and manufacture mobile telescopic cranes utilized primarily in industrial, commercial and construction applications, as well as in maintenance applications to lift and move material at job sites. Mobile telescopic cranes consist of a telescopic boom mounted on a wheeled carrier. Many mobile telescopic cranes have the ability to drive between sites, and some are permitted on public roadways. We currently offer the following five types of mobile telescopic cranes: rough-terrain, all-terrain, truck-mounted, telescopic crawler and industrial.

Rough-terrain cranes are designed to lift materials and equipment on rough or uneven terrain, and their versatility allows them to carry out many different lifts within the boundaries of given sites. These cranes cannot be driven on public roadways, and, accordingly, must be transported by truck to a work site and are produced in the U.S. and Italy under the Grove brand name.

All-terrain cranes are versatile cranes designed to lift materials and equipment on rough or uneven terrain and yet are highly maneuverable and capable of highway speeds. All-terrain cranes are often used for specific, one-off, heavy, high lifts requiring careful lift-planning and engineering and are produced in Germany under the Grove brand name.

Truck-mounted cranes are designed to provide simple set-up and long reach and have high capacity booms. They are capable of traveling from site to site at highway speeds. These cranes are produced in the U.S. under the Grove brand name and are suitable for urban and suburban uses.

Telescopic crawler cranes are designed to lift materials on rugged terrain. These cranes consist of a telescopic boom superstructure mounted to a crawler crane chassis. These cranes are sold under the Grove brand name and combine excellent gradeability and lift capacity with 100 percent pick and carry capabilities.

Industrial cranes are designed primarily for plant maintenance, storage yard and material handling jobs; and allow for picking up and carrying loads on a smooth, flat surface. We manufacture industrial cranes in the U.S. under the Grove brand name.

We offer our hydraulic boom truck products under the National Crane product line. A boom truck is a hydraulically powered telescopic crane mounted on a conventional truck chassis. Telescopic boom trucks are used primarily for lifting material on a job site and are mostly deployed by end users in the North American market. We currently offer telescoping boom trucks under the National Crane brand name.

Backlog and customers . The year-end backlog of crane products includes accepted orders that have been placed on a production schedule that we expect to be shipped and billed primarily within one year. Manitowoc's backlog of unfilled orders at December 31, 2016 , 2015 and 2014 was \$323.8 million , \$513.0 million and \$738.0 million , respectively. Our backlog at the end of 2016 decrease d from the end of 2015 due in part to lower customer demand for mobile hydraulic products primarily in North America and the Middle East, driven by declining oil prices and the associated impact across energy-related end markets, lower crane utilization and declining resale values, partially offset by growth in Western Europe.

The Company does not have any customers that individually comprise more than 10% of its consolidated net sales.

Manufacturing

Manitowoc operates twelve manufacturing facilities (including remanufacturing facilities) that utilize a variety of processes. In general, the Company's manufacturing process involves the fabrication and machining of raw materials, primarily steel, which are then manufactured into sub-assemblies. Sub-assemblies are then assembled with purchased components into a complete machine. In its manufacturing operations, Manitowoc maintains advanced manufacturing, quality assurance and testing equipment and utilizes extensive process automation. The Company has also invested in Product Verification Centers at its major manufacturing facilities to support new product development, testing and qualification of sub-systems and final product designs.

The Company is training employees dedicated to leading the implementation of The Manitowoc Way, a business system that seeks to enhance customers' experiences with our products and services. The team is comprised of members with diverse backgrounds in quality, lean, finance, product and process engineering. It includes lean tools to eliminate waste from processes to provide better value for customers, and it assesses customer satisfaction and implements countermeasures to improve customer experiences. The Manitowoc Way improvement projects have contributed to manufacturing efficiency gains, materials management improvements, steady quality improvements and reduction of lead times, as well as enabled the Company to free up manufacturing space.

Raw Materials and Supplies

Manitowoc purchases a wide variety of raw materials to manufacture its products. The Company's primary raw materials are structural and rolled steel, which are purchased from various domestic and international suppliers. We also purchase engines and electrical equipment and other semi- and fully-processed materials. Our policy is to maintain alternate sources of supply for our critical materials and parts wherever possible, and therefore, we are not dependent on a single source for any particular raw material or supply.

Patents, Trademarks, and Licenses

MTW utilizes patent rights to protect its intellectual property and its position as a leading provider of engineered lift solutions. We hold numerous United States and foreign patents pertaining to our products and also have pending applications for additional United States and foreign patents. In addition, we have various registered and unregistered trademarks, copyrights and licenses. We believe our patents, trademarks and copyrights are adequately protected in customary fashions under applicable laws. We actively enforce our patents, trademarks and copyrights and this intellectual property in which we have invested is collectively of material importance to our business.

Seasonality

The second and fourth quarters generally have represented the best quarters for our financial results. More recently, the traditional seasonality of our business has been slightly muted due to more diversified product and geographic end markets, as well as the unusually low customer demand for certain of our products that has been lower as compared to historical patterns. The northern hemisphere summer represents the main construction season, whereby customers require new machines, parts, and service during that season.

Competition

We sell all of our products in highly competitive industries. We compete in each of our industries based on product design, quality of products and aftermarket support services, product performance, maintenance costs, energy and resource saving and other contributions to sustainability and price. Given the potential for equipment failures to cause expensive operational disruption, the Company's customers generally view quality and reliability as critical factors in their purchasing decision. We believe that we benefit from the following competitive advantages: strong brand names, which create customer loyalty and facilitate strong resale values, a reputation for quality products and aftermarket support and solution services, an established network of global distributors and customer relationships, broad product line offerings in the markets we serve and a commitment to engineering design and product innovation. The following table sets forth our primary competitors:

Products	Primary Competitors
Lattice-boom Cranes	Hitachi Sumitomo; Kobelco; Liebherr; Sumitomo/Link-Belt; Terex; XCMG; Zoomlion; and Sany
Tower Cranes	Comansa; Terex Comedil/Peiner; Liebherr; FM Gru; Jaso; Raimondi; Viccario; Saez; Benezato; Cattaneo; Zoomlion; Yongmao; and Wolffkran
Mobile Telescopic Cranes	Liebherr; Link-Belt; Terex; Tadano; XCMG; Kato; Locatelli; Broderson; Sany; and Zoomlion
Boom Trucks	Terex; Manitex; Altec; Elliott; and Tadano

Engineering, Research and Development

We believe our extensive engineering, research and development capabilities are key drivers of our success. We engage in research and development activities at dedicated locations. We have a staff of in-house engineers and technicians on three continents, supplemented with external engineering resources, who are responsible for improving existing products and developing new products. We incurred research and development costs of \$44.5 million in 2016, \$57.6 million in 2015 and \$56.4 million in 2014.

Our team of engineers focuses on developing high performance, low maintenance, innovative products intended to create significant brand loyalty among customers. Design engineers work closely with our manufacturing and marketing staff, enabling us to identify changing end-user requirements, implement new technologies and effectively introduce product innovations. Closely managed relationships with dealers, distributors and end users help us identify their needs, not only for

products, but for the service and support that are critical to their profitable operations. As part of our ongoing commitment to provide superior products, we intend to continue our efforts to design products that meet evolving customer demands and reduce the period from product conception to product introduction.

Employee Relations

As of December 31, 2016, we employed approximately 4,900 people and had labor agreements with five local unions in North America. A large majority of our European employees belong to European trade unions. We have two trade unions in China and one trade union in India. During 2016, four of our union contracts expired and were successfully renegotiated without incident. We have ten union contracts involving an aggregate of 1,300 employees that expire in 2017.

Available Information

We make available, free of charge at our internet site (www.manitowoc.com), our Annual Reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, our proxy statements and any amendments to those reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (“SEC”). Our SEC reports can also be accessed through the investor relations section of our website. Although some documents available on our website are filed with the SEC, the information generally found on our website is not part of this or any other report we file with or furnish to the SEC.

The public may read and copy any materials that we file with the SEC at the SEC’s Public Reference Room located at 100 F Street NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains electronic versions of our reports on its website at www.sec.gov.

Item 1A. RISK FACTORS

The Company's financial position, results of operations and cash flows are subject to various risks, many of which are not exclusively within the Company's control, which may cause actual performance to differ materially from historical or projected future performance. Investors should consider carefully information in this Annual Report on Form 10-K in light of the risk factors described below.

Sales of our products are cyclical and/or are otherwise sensitive to volatile or variable factors. A downturn or weakness in overall economic activity or fluctuations in those other factors can have a material adverse effect on us.

Historically, sales of products that we manufacture and sell have been subject to cyclical variations caused by changes in general economic conditions and other factors. In particular, demand for our products is cyclical and is impacted by the strength of the economy, generally, the availability of financing and other factors, including crude oil prices, that may have an effect on the level of construction activity on an international, national or regional basis. During periods of expansion in construction activity, we generally have benefited from increased demand for our products; challenging conditions can continue well beyond the end of such periods. Conversely, during recessionary periods, we have been adversely affected by reduced demand for our products. Furthermore, any future economic recession may impact leveraged companies, such as Manitowoc, more than competing companies with less leverage and may have a material adverse effect on our financial condition, results of operations and cash flows.

Products also depend in part on federal, state, local and foreign governmental spending and appropriations, including infrastructure, security and defense outlays. Reductions in governmental spending can reduce demand for our products, which in turn, can negatively affect our performance. Our sales depend in part upon our customers' replacement or repair cycles. Adverse economic conditions may cause customers to forego or postpone new purchases in favor of repairing existing machinery.

If we are unable to sufficiently adjust to market conditions, among other potential adverse effects on our financial condition, results of operations and cash flows, we could fail to deliver on planned results, fall short of analyst and investor expectations, incur high fixed costs and/or fail to benefit from higher than expected customer demand resulting in loss of market share.

Our operational results are dependent on how well we can scale our manufacturing capacity and resources to the level of our customers' demand.

We operate in industries that require manufacturers to make highly efficient use of manufacturing capacity. Insufficient or excess capacity threatens our ability to generate competitive profit margins and may expose us to liabilities related to contractual commitments. Although from time to time we close or consolidate facilities, such as the transition that is in process of certain manufacturing operations from our Manitowoc, Wisconsin facility to our Shady Grove, Pennsylvania facility and our consolidation of certain operations in Portugal, adapting or modifying our capacity is difficult, as modifications take substantial time to execute, are inherently disruptive and costly and, in some cases, may require regulatory approval. Additionally, delivering product during process or facility modifications requires special coordination. The cost and resources required to adapt our capacity, such as through facility acquisitions, facility closings or process moves between facilities, may negate any planned cost reductions or may result in costly delays, product quality issues or material shortages, all of which could adversely affect our operational results and our reputation with our customers.

Price increases in some materials and sources of supply could affect our profitability.

We use large amounts of steel, among other items, in the manufacture of our products. Occasionally, market prices of some of our key raw materials increase significantly. If in the future we are not able to reduce product costs in other areas or pass raw material price increases on to our customers, our margins could be adversely affected. In addition, because we maintain limited raw material and component inventories, even brief unanticipated delays in delivery by suppliers - including those due to capacity constraints, labor disputes, impaired financial condition of suppliers, weather emergencies or other natural disasters - may impair our ability to satisfy our customers and could adversely affect our financial performance.

The Company purchases certain branded cranes under strategic alliances from various third-party suppliers which are then sold into our markets. If we are not able to effectively manage pricing from our suppliers, our financial performance could be adversely affected. Likewise, if our suppliers terminate these agreements and we are unable to procure alternate products at substantially similar competitive pricing, our financial performance could be adversely affected.

Our success depends on our ability to attract and retain key personnel.

Our success depends to a large extent upon our ability to attract and retain key executives, managers and skilled personnel. The loss of the services of one or more of these key employees could have an adverse effect, at least in the short to medium term, on

significant aspects of our business, including strategic planning and product development. Generally, our key employees are not bound by employment or non-competition agreements, and we cannot be sure that we will be able to retain our key officers and employees. If certain subject-matter experts or employees with specialized skills move to employment elsewhere, we will incur significant costs in hiring, training, developing and retaining their replacements.

Because we participate in industries that are highly competitive, our net sales and profits could decline as we respond, or fail to effectively respond, to competition.

We sell most of our products in highly competitive industries. We compete in each of those industries based on product design, quality of products, quality and responsiveness of product support services, product performance, maintenance costs and price. Some of our competitors may have greater financial, marketing, manufacturing and distribution resources than we do. We cannot be certain that our products and services will continue to compete successfully with those of our competitors or that we will be able to retain our customer base or improve or maintain our profit margins on sales to our customers, any of which could materially and adversely affect our financial condition, results of operations and cash flows.

If we do not develop new and innovative products or if customers in our markets do not accept them, our results would be negatively affected.

Our products must be kept current to meet our customers' needs. To remain competitive, we therefore must develop new and innovative products on an on-going basis, and we invest significantly in the research and development of new products. If we do not successfully develop innovative products, it may be difficult to differentiate our products from our competitors' products and satisfy regulatory requirements, and our sales and results would suffer.

If we do not meet customers' product quality and reliability standards and expectations, we may experience increased or unexpected product warranty claims and other adverse consequences to our business.

Product quality and reliability are significant factors influencing customers' decisions to purchase our products. Inability to maintain the high quality of our products relative to the perceived or actual quality of similar products offered by competitors could result in the loss of market share, loss of revenue, reduced profitability, an increase in warranty costs and/or damage to our reputation.

Product quality and reliability are determined in part by factors that are not entirely within our control. We depend on our suppliers for parts and components that meet our standards. If our suppliers fail to meet those standards, we may not be able to deliver the quality of products that our customers expect, which may impair revenue and our reputation and lead to higher warranty costs.

We provide our customers a warranty covering workmanship, and in some cases materials, on products we manufacture. Our warranty generally provides that products will be free from defects for periods ranging from 12 months to 60 months. If a product fails to comply with the warranty, we may be obligated, at our expense, to correct any defect by repairing or replacing the defective product. Although we maintain warranty reserves in an amount based primarily on the number of units shipped and on historical and anticipated warranty claims, there can be no assurance that future warranty claims will follow historical patterns or that we can accurately anticipate the level of future warranty claims. An increase in the rate of warranty claims or the occurrence of unexpected warranty claims could materially and adversely affect our financial condition, results of operations and cash flows.

Some of our customers may not be able to obtain financing with third parties to purchase our products, and we may incur expenses associated with our assistance to customers in securing third-party financing.

A portion of our sales are financed by third-party finance companies on behalf of our customers. The availability of financing from third parties is affected by general economic conditions, the creditworthiness of our customers and the estimated residual value of our equipment. In certain transactions, we provide residual value guarantees and buyback commitments to our customers or to third-party financial institutions. Deterioration in the credit quality of our customers or the overall health of the banking industry could negatively impact our customer's ability to obtain the resources needed to make purchases of our equipment or their ability to obtain third-party financing. In addition, if the actual value of the equipment for which we have provided a residual value guaranty declines below the amount of our guaranty, we may incur additional costs, which may negatively impact our financial condition, results of operations and cash flows.

We have significant manufacturing and sales of our products outside of the United States, which may present additional risks to our business.

For the years ended December 31, 2016, 2015, and 2014, approximately 60%, 58% and 59%, respectively, of our net sales were attributable to products sold outside of the United States. Expanding the Company's international sales is part of our growth

strategy. International operations generally are subject to various risks, including political, military, religious and economic instability, local labor market conditions, the imposition of foreign tariffs, the effects of currency fluctuations, the impact of foreign government regulations, the effects of income and withholding tax, governmental expropriation and differences in business practices. We may incur increased costs and experience delays or disruptions in product deliveries and payments in connection with our international sales, manufacturing and the integration of new facilities that could cause loss of revenue or increased cost. Unfavorable changes in the political, regulatory and business climate and currency devaluations of various foreign jurisdictions could have a material adverse effect on our financial condition, results of operations and cash flows.

Our results of operations may be negatively impacted by product liability lawsuits.

Our business exposes us to potential product liability claims which may be alleged in connection with the design, manufacture, sale and use of our products. Certain of our businesses also have experienced claims relating to past alleged asbestos exposure. Neither we nor our affiliates have to date incurred material costs related to these asbestos claims. We vigorously defend ourselves against current claims and intend to do so against future claims. We also maintain certain insurance policies which may limit our financial exposures. We do not believe the outcome of such matters will have an adverse effect on our financial position; however, any significant liabilities which are not covered by insurance could have an adverse effect on our financial condition, results of operation and cash flows. Likewise, a substantial increase in the number of claims that are made against us or the amounts of any judgments or settlements could materially and adversely affect our reputation and our financial condition, results of operations and cash flows.

If we fail to protect our intellectual property rights or maintain our rights to use licensed intellectual property, our business could be adversely affected.

Our patents, trademarks and licenses are important in the operation of our businesses. Although we intend to protect our intellectual property rights vigorously, we cannot be certain that we will be successful in doing so. Third parties may assert or prosecute infringement claims against us in connection with the services and products that we offer, and we may or may not be able to successfully defend these claims. Litigation, either to enforce our intellectual property rights or to defend against claimed infringement of the rights of others, could result in substantial costs and in a diversion of our resources. In addition, if a third party would prevail in an infringement claim against us, then we would likely need to obtain a license from the third party on commercial terms, which would likely increase our costs. Our failure to maintain or obtain necessary licenses or an adverse outcome in any litigation relating to patent infringement or other intellectual property matters could have a material adverse effect on our financial condition, results of operations and cash flows.

Our goodwill and other intangible assets represent a material amount of our total assets; as a result future impairment may have material adverse effect on our results of operations.

At December 31, 2016, goodwill and other intangible assets totaled \$413.7 million, or about 27% of our total assets. We assess annually whether there has been impairment in the value of our goodwill or indefinite-lived intangible assets. If future operating performance were to fall below current projections or if there are material changes to management's assumptions, we could be required to recognize a non-cash charge to operating earnings for goodwill or other intangible asset impairment. Any future goodwill or intangible asset impairments may have a material adverse effect on our results of operations.

Our operations and profitability could suffer if we experience problems with labor relations.

As of December 31, 2016, we employed approximately 4,900 people and had labor agreements with five local unions in North America. A large majority of our European employees belong to European trade unions. We have two trade unions in China and one trade union in India. During 2016, four of our union contracts expired and were successfully renegotiated without incident. We have ten union contracts involving an aggregate of 1,300 employees that expire in 2017.

Any significant labor relations issues could have an adverse effect our operations, reputation, results of operations and financial condition.

Our leverage may impair our operations and financial condition.

As of December 31, 2016, our total consolidated debt was \$281.5 million as compared to consolidated debt of \$1,397.6 million as of December 31, 2015, including the value of related interest rate hedging instruments. Upon completion of the Spin-Off, the Company entered into a \$225.0 million Asset Based Revolving Credit Facility (as amended, the "ABL Revolving Credit Facility") by and among the Company and certain of its domestic and German subsidiaries, as borrowers, the lender party thereto, Wells Fargo Bank, N.A. as administrative agent, and Wells Fargo Bank N.A., JP Morgan Chase Bank, N.A. and Goldman Sachs Bank USA as joint lead arrangers. The ABL Revolving Credit Facility includes a \$75.0 million Letter of Credit Facility, \$10.0 million of which is available to the German borrower, with a term of 5 years.

Although actions taken in connection with the Spin-Off reduced our debt load, the amount of debt we maintain could have consequences, including increasing our vulnerability to general adverse economic and industry conditions; requiring a substantial portion of our cash flows from operations be used for the payment of interest rather than to fund working capital, capital expenditures, acquisitions and general corporate requirements; limiting our ability to obtain additional financing; and limiting our flexibility in planning for, or reacting to, changes in our business and the industries in which we operate.

The agreements governing our debt include covenants that restrict, among other matters, our ability to incur additional debt; pay dividends on or repurchase our equity; make certain investments; and consolidate, merge or transfer all or substantially all of our assets. Certain of our debt facilities require or will require us to maintain specified financial ratios and satisfy certain financial condition tests. Our ability to comply with these covenants may be affected by events beyond our control, including prevailing economic, financial and industry conditions. These covenants may also require that we take disadvantageous actions, including reducing spending on marketing, advertising and new product innovation, reducing future financing for working capital, capital expenditures and general corporate purposes, selling assets or dedicating an unsustainable level of cash flow from operations to the payment of principal and interest on our indebtedness. Our leverage could also put us at a disadvantage compared to any competitors that are less leveraged. We cannot be certain that we will meet any future financial tests or that the lenders will waive any failure to meet those tests. See additional discussion in Note 11, "Debt" to our Consolidated Financial Statements.

If we default under our debt agreements, our lenders could elect, among other potential remedies, to declare all amounts outstanding under our debt agreements to be immediately due and payable and could proceed against any collateral securing the debt. Under those circumstances, in the absence of readily-available refinancing on favorable terms, we might elect or be compelled to enter bankruptcy proceedings, in which case our shareholders could lose the entire value of their investment in our common stock.

We are exposed to the risks of changes in interest rates and foreign currency fluctuations.

Certain of our indebtedness accrues interest at a variable rate, therefore, increases in interest rates will reduce our operating cash flows and could hinder our ability to fund our operations or capital expenditures. In such cases, we may seek to reduce our exposure to fluctuations in interest rates, but hedging our exposure carries the risk that we may forego the benefits we would otherwise experience if interest rates were to change in our favor. Developing an effective strategy for dealing with movements in interest rates is complex, and no strategy is guaranteed to completely insulate us from the risks associated with such fluctuations.

Additionally, some of our operations are or will be conducted by subsidiaries in foreign countries. The results of the operations and the financial position of these subsidiaries will be reported in the relevant foreign currencies and then translated into U.S. dollars at the applicable exchange rates for inclusion in our consolidated financial statements, which are stated in U.S. dollars. The exchange rates between foreign currencies and the U.S. dollar have fluctuated significantly in recent years and may continue to fluctuate in the future. Such fluctuations may have a material effect on our results of operations and financial position and may significantly affect the comparability of our results between financial periods.

We also incur currency transaction risk whenever one of our operating subsidiaries enters into a transaction using a different currency than its functional currency. We attempt to reduce currency transaction risk whenever one of our operating subsidiaries enters into a material transaction using a different currency than its functional currency by:

- matching cash flows and payments in the same currency;
- direct foreign currency borrowing; and
- entering into foreign exchange contracts for hedging purposes.

However, we may not be able to hedge this risk completely or at an acceptable cost, which may adversely affect our results of operations, financial condition and cash flows in future periods.

Changes to tax laws or exposure to additional tax liabilities may have a negative impact on our operating results.

Tax policy reform continues to be a topic of discussion in the United States. A significant change to the tax system in the United States, including changes to the taxation of international income and/or duties on imports or exports, could have a material adverse effect upon our results of operations. We regularly undergo tax audits in various jurisdictions in which we operate. Although we believe that our tax estimates are reasonable and that we prepare our tax filings in accordance with all applicable tax laws, the final determination with respect to any tax audits, and any related litigation, could be materially different from our estimates or from our historical income tax provisions and accruals. The results of an audit or litigation could have a material adverse effect on operating results and/or cash flows in the periods for which that determination is made. In addition, future period earnings may be adversely impacted by litigation costs, settlements, penalties and/or interest assessments.

Our business and/or reputation could be negatively affected as a result of actions of activist shareholders, and such activism could impact the trading value of our securities.

Certain of our shareholders have publicly or privately expressed views with respect to the operation of our business, our business strategy, corporate governance considerations or other matters that may not be fully aligned with our own. Responding to actions by activist shareholders can be costly and time-consuming, disrupt our operations and divert the attention of management and our employees. Perceived uncertainties as to our future direction may result in the loss of potential business opportunities, damage to our reputation and may make it more difficult to attract and retain qualified directors, personnel and business partners. These actions could also cause our stock price to experience periods of volatility.

Activist shareholders have made, and may in the future make, strategic proposals, suggestions or requests for changes concerning the operation of our business, our business strategy, corporate governance considerations or other matters. We cannot predict, and no assurances can be given, as to the outcome or timing of any consequences arising from these actions, and any such consequences may impact the value of our securities.

Environmental liabilities that may arise in the future could be material to us.

Our operations, facilities and properties are subject to extensive and evolving laws and regulations pertaining to air emissions, wastewater discharges, the handling and disposal of solid and hazardous materials and wastes, the remediation of contamination, and otherwise relating to health, safety and the protection of the environment. As a result, we are involved from time to time in administrative or legal proceedings relating to environmental and health and safety matters and have in the past and will continue to incur capital costs and other expenditures relating to such matters.

We cannot be certain that identification of presently unidentified environmental conditions, more vigorous enforcement by regulatory authorities or other unanticipated events will not arise in the future and give rise to additional environmental liabilities, compliance costs and/or penalties that could be material. Further, environmental laws and regulations are constantly evolving, and it is impossible to predict accurately the effect they may have upon our financial condition, results of operations or cash flows.

Security breaches and other disruptions could compromise our information and expose us to liability, which would cause our business and reputation to suffer.

In the ordinary course of our business, we collect and store sensitive data, including our proprietary business information and that of our customers, suppliers and business partners, as well as personally identifiable information of our customers and employees, in our internal and external data centers, cloud services and on our networks. The secure processing, maintenance and transmission of this information is critical to our operations and business strategy. Despite our security measures, our information technology and infrastructure, and that of our partners, may be vulnerable to malicious attacks or breaches due to employee error, malfeasance or other disruptions, including as a result of rollouts of new systems. Any such breach or operational failure would compromise our networks and/or that of our partners 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 and/or regulatory penalties, disrupt our operations, damage our reputation and/or cause a loss of confidence in our products and services, which could adversely affect our business.

Our inability to recover from natural or man-made disasters could adversely affect our business.

Our business and financial results may be affected by certain events that we cannot anticipate or that are beyond our control, such as natural or manmade disasters, national emergencies, significant labor strikes, work stoppages, political unrest, war or terrorist activities that could curtail production at our facilities and cause delayed deliveries and canceled orders. In addition, we purchase components and raw materials and information technology and other services from numerous suppliers, and, even if our facilities were not directly affected by such events, we could be affected by interruptions at such suppliers. Such suppliers may be less likely than our own facilities to be able to quickly recover from such events and may be subject to additional risks such as financial problems that limit their ability to conduct their operations. We cannot assure you that we will have insurance to adequately compensate us for any of these events.

Our international sales and operations are subject to applicable laws relating to trade, export controls and foreign corrupt practices, the violation of which could adversely affect our operations.

We must comply with all applicable international trade, customs, export controls and economic sanctions laws and regulations of the United States and other countries. We are also subject to the Foreign Corrupt Practices Act and other anti-bribery laws that generally bar bribes or unreasonable gifts to foreign governments or officials. The new presidential administration in the United States has taken, and make take additional, actions that may inhibit international trade by U.S.-based companies.

Changes in trade sanctions laws may restrict our business practices, including cessation of business activities in sanctioned countries or with sanctioned entities, and may result in modifications to compliance programs. Violation of these laws or regulations could result in sanctions or fines and could have a material adverse effect on our financial condition, results of operations and cash flows.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

Manitowoc maintains leased and owned manufacturing, warehouse, storage, field testing and office facilities and land throughout the world. The Company believes that its facilities currently in use are suitable and have adequate capacity to meet its present and foreseeable future demand. See Note 22, “Leases,” to the Consolidated Financial Statements included in Part II, Item 8 of this Form 10-K for additional information regarding leases. Manitowoc management continually monitors the Company’s capacity needs and makes adjustments as dictated by market and other conditions.

The following table provides information about principal facilities owned or leased by the Company (exceeding 50,000 square feet) as of December 31, 2016 .

Facility Location	Type of Facility	Approximate Square Footage	Owned/Leased
Americas			
Shady Grove, Pennsylvania (1)	Manufacturing/Office	1,330,000	Owned
Manitowoc, Wisconsin (1)	Manufacturing/Office	570,000	Owned
Port Washington, Wisconsin	Manufacturing	81,029	Owned
Passo Fundo, Brazil **	Manufacturing/Office	300,000	Owned
EMEA			
Wilhelmshaven, Germany	Manufacturing/Office and Storage	410,000	Owned/Leased
Fanzeres, Portugal (2)	Manufacturing	362,891	Owned
Baltar, Portugal (2)	Manufacturing/Office	241,876	Owned
Niella Tanaro, Italy	Manufacturing	370,016	Owned
Langenfeld, Germany	Office/Storage and Field Testing	80,300	Leased
Moulins, France	Manufacturing/Office	355,000	Owned
Charlieu, France	Manufacturing/Office	323,000	Owned
Dardilly, France	Office	82,000	Leased
Dry, France	Office	93,100	Leased
Buckingham, United Kingdom	Office/Storage	78,000	Leased
Saint Pierre de Chandieu, France	Warehouse/Office	434,565	Leased
APAC			
Zhangjiagang, China	Manufacturing	800,000	Owned
Pune, India	Manufacturing	190,000	Leased
Shirwal, India	Land	1,560,700	Owned
Singapore *	Office/Storage	54,000	Leased
Sydney, Australia *	Office/Storage/Workshop	61,000	Leased

- (1) In the third quarter of 2016, the Company announced the expected mid-2017 closure of its Manitowoc, Wisconsin manufacturing facility; the Company is consolidating its Manitowoc manufacturing facility into its existing manufacturing facility in Shady Grove, Pennsylvania.
- (2) In the third quarter of 2016, the Company announced the expected mid-2017 closure of its Fanzeres, Portugal manufacturing facility; Manitowoc is consolidating its Portugal manufacturing operations into its existing manufacturing facility in Baltar, Portugal.

* There are multiple separate facilities within these locations.

** This facility is inactive as of December 31, 2016.

Item 3. LEGAL PROCEEDINGS

Our global operations are governed by laws addressing the protection of the environment and employee safety and health. Under various circumstances, these laws impose civil and criminal penalties and fines, as well as injunctive and remedial relief, for noncompliance. They also may require remediation at sites where Company related substances have been released into the environment.

We have expended substantial resources globally, both financial and managerial, to comply with the applicable laws and regulations, and to protect the environment and our workers. We believe we are in substantial compliance with such laws and regulations and we maintain procedures designed to foster and ensure compliance. However, we have been and may in the future be subject to formal or informal enforcement actions or proceedings regarding noncompliance with such laws or regulations, whether or not determined to be ultimately responsible in the normal course of business. Historically, these actions have been resolved in various ways with the regulatory authorities without material commitments or penalties to the Company.

For information concerning other contingencies and uncertainties, see Note 18, “Contingencies and Significant Estimates,” to the Consolidated Financial Statements included in Part II, Item 8 of this Form 10-K.

Item 4. MINE SAFETY DISCLOSURE

Not Applicable.

EXECUTIVE OFFICERS OF THE REGISTRANT

Each of the following executive officers of the Company has been elected by the Board of Directors. The information presented below is as of February 24, 2017.

Name	Age	Position With The Registrant	Principal Position Held Since
Barry L. Pennypacker	55	President and Chief Executive Officer	2016
David J. Antoniuk	59	Senior Vice President and Chief Financial Officer	2016
Thomas G. Musial	65	Senior Vice President of Human Resources and Administration	2000
Louis F. Raymond	50	Vice President, General Counsel and Secretary	2016
Larry J. Weyers	54	Executive Vice President of Tower Cranes	2016
Aaron H. Ravenscroft	38	Executive Vice President of Mobile Cranes	2016

The following paragraphs provide further information as to our executive officers' duties and their employment history:

Barry L. Pennypacker was appointed to the position of President and Chief Executive Officer of the Company's cranes business in December 2015 and became the Company's President and Chief Executive Officer following the Spin-Off. Mr. Pennypacker served, since 2013, as founder, President and Chief Executive Officer of Quantum Lean LLC, a privately held manufacturer and supplier of precision components. He previously served as president and chief executive officer, as well as a director, of Gardner Denver, Inc., a manufacturer and marketer of engineered industrial machinery and related parts and services (2008-2012). Prior to joining Gardner Denver, Inc., Mr. Pennypacker served in positions with increasing responsibility at Westinghouse Air Brake Technologies Corporation, a worldwide provider of technology-based equipment and services for the rail industry (1999-2008), with his last position being vice president-group executive. He previously served as director, Worldwide Operations, Stanley Fastening Systems, an operating unit of The Stanley Works, a worldwide producer of tools and security products, and held a number of senior management positions with increasing responsibility with Danaher Corporation, a manufacturer and marketer of professional, medical, industrial and commercial products and services.

David J. Antoniuk has served as Senior Vice President and Chief Financial Officer since May 2016, responsible for directing teams in accounting, financial reporting, investor relations, global tax, information services and treasury. Prior to joining Manitowoc, Mr. Antoniuk served as Vice President and Chief Financial Officer at Colorcon, Inc. (2015-2016), a leader in the development, supply and technical support of formulated coatings and functional excipients for the pharmaceutical and dietary/food/nutritional supplement industries, and Vice President and Corporate Controller at Gardner Denver (2005-2014). Prior to Gardner Denver, Mr. Antoniuk served in positions of increasing responsibility at Davis-Standard Corp., Pirelli Cables, Johnson & Johnson and KPMG.

Thomas G. Musial has been Senior Vice President of Human Resources and Administration since 2000. Previously, he was Vice President of Human Resources and Administration and held various roles within human resources.

Louis F. Raymond has served as Vice President, General Counsel and Secretary since March 2016. Prior to his current role, Mr. Raymond served as Associate General Counsel, and was Senior Litigation Counsel since joining Manitowoc in 2004. Prior to joining Manitowoc, Mr. Raymond worked in private practice and was a shareholder in the law firm of Davis & Kuelthau, S.C., Milwaukee, WI, practicing there since 1991.

Larry J. Weyers has served as Executive Vice President of Tower Cranes since March 2016. Mr. Weyers previously served as executive vice president of the Company's prior cranes segment (2015-2016), senior vice president of the Company, president of the cranes segment (2015) and executive vice president of Cranes America (2007-2014). He has held various other executive management positions with the Company since joining the Company in 1998, including executive vice president of Crane Care from (2004-2007). Prior to joining the Company, Mr. Weyers was General Manager Sales and Marketing for Woods Equipment Company and held various positions in Kubota Tractor Corporation.

Aaron H. Ravenscroft has served as the Company's Executive Vice President of Mobile Cranes since March 2016, focusing on safety, quality, delivery and cost of the mobile cranes business. Prior to joining Manitowoc, Mr. Ravenscroft served as Regional

Managing Director of the North American Minerals business for the Weir Group (2013-2016), an engineering company, President of Process & Flow Control Group of Robbins & Myers (2011-2013), a manufacturer of engineered equipment, and Regional Vice President of Industrial Products Group for Gardner Denver, Inc. (2008-11). Prior to that, he held a series of positions with increasing responsibility at Westinghouse Air Brake Technologies (2003-2008) and Janney Montgomery Scott (2000-2003).

PART II**Item 5. MARKET FOR REGISTRANT’S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS**

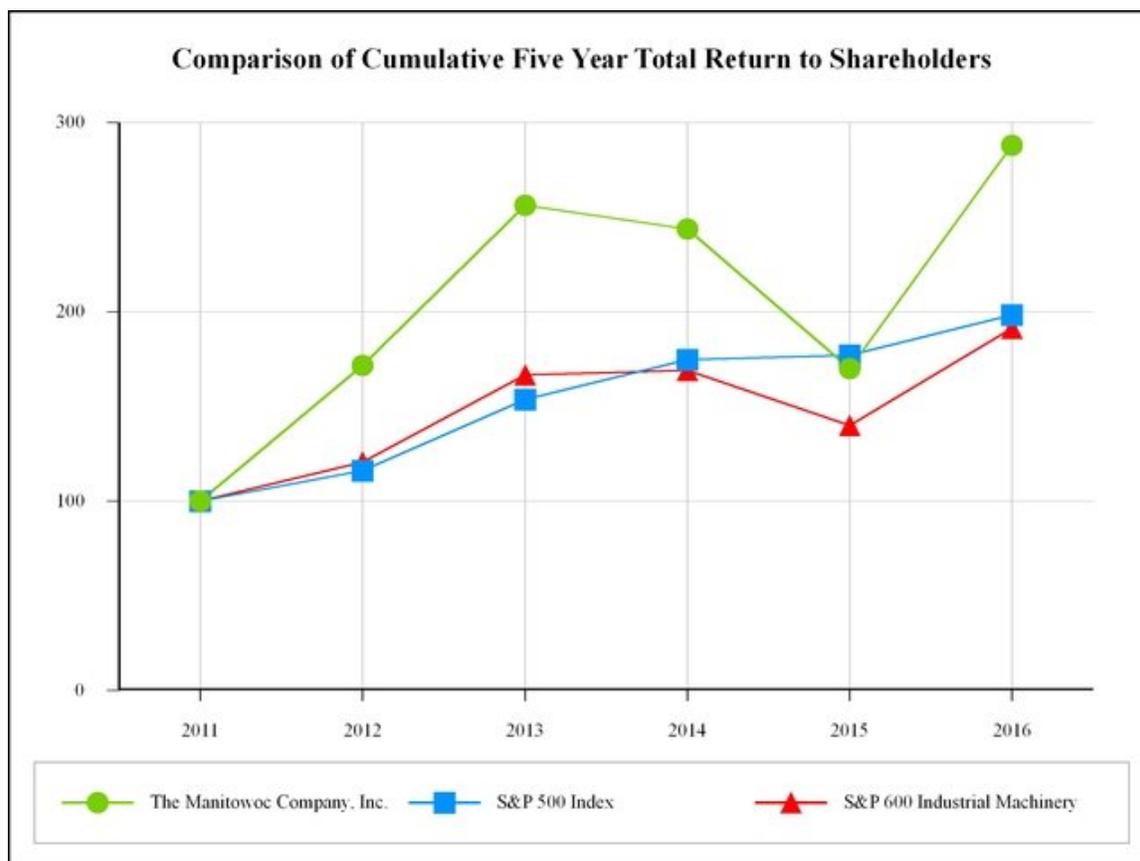
The Company’s common stock is traded on the New York Stock Exchange (“NYSE”) under the symbol MTW. At December 31, 2016, the approximate number of record shareholders of common stock was 1,900.

The amount and timing of any dividends are determined by the Board of Directors at its regular meetings each year, subject to limitations within the Company’s Senior Notes indenture and ABL Revolving Credit Facility described below. In the year ended December 31, 2016, no cash dividends were declared or paid. In each of the years ended December 31, 2015 and December 31, 2014, the Company paid an annual dividend of \$0.08 per share in the fourth quarter.

The quarterly stock prices of the common stock were as follows for the years indicated. The prices on and before March 4, 2016 include the value of MFS, which was spun-off on that date.

	2016			2015			2014		
	High	Low	Close	High	Low	Close	High	Low	Close
1st Quarter - Pre Spin-Off	\$ 17.40	\$ 11.73	\$ 16.94	\$ 22.91	\$ 17.30	\$ 21.56	\$ 32.80	\$ 22.68	\$ 31.45
1st Quarter - Post Spin-Off	4.59	4.00	4.33	n/a	n/a	n/a	n/a	n/a	n/a
2nd Quarter	6.15	4.21	5.45	22.67	18.79	19.60	33.46	26.87	32.86
3rd Quarter	5.84	4.27	4.79	19.83	14.47	14.93	33.50	23.42	23.45
4th Quarter	6.30	3.65	5.98	17.68	13.86	15.35	23.36	16.24	22.10

Our ABL Revolving Credit Facility and Senior Secured Second Lien Notes due 2021 limit or restrict the amount of certain payments we can make; including the purchase or retirement of Company stock, prepayment of debt principal and distribution of dividends to holders of Company stock. These so-called “Restricted Payments” are currently constrained by a provision requiring a minimal fixed charge coverage ratio after giving effect to the Restricted Payment. Additionally, we must consider all previous Restricted Payments when we calculate the capacity for future Restricted Payments.



Total Return to Shareholders

(Includes reinvestment of dividends)

	Annual Return Percentages				
	Years Ending December 31,				
	2012	2013	2014	2015	2016
The Manitowoc Company, Inc.	71.53%	49.30%	(4.86)%	(30.21)%	69.23%
S&P 500 Index	16.00%	32.39%	13.69 %	1.38 %	11.96%
S&P 600 Industrial Machinery	20.56%	38.22%	1.36 %	(17.22)%	36.69%

	Indexed Returns					
	Years Ending December 31,					
	2011	2012	2013	2014	2015	2016
The Manitowoc Company, Inc.	100.00	171.53	256.10	243.66	170.04	287.77
S&P 500 Index	100.00	116.00	153.57	174.60	177.01	198.18
S&P 600 Industrial Machinery	100.00	120.56	166.64	168.91	139.82	191.13

Item 6. SELECTED FINANCIAL DATA

The following selected historical financial data has been derived from the Consolidated Financial Statements of The Manitowoc Company, Inc. The data should be read in conjunction with the Company's Consolidated Financial Statements and related notes and Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations." Results of the prior Foodservice segment and Manitowoc Dong Yue business in the years presented have been classified as discontinued operations to exclude those results from continuing operations. In addition, the income (loss) from discontinued operations includes the impact of adjustments to certain retained liabilities for operations sold or closed in periods prior to those presented. Amounts are in millions except share and per share data.

	2016	2015	2014	2013	2012
Net sales	\$ 1,613.1	\$ 1,865.7	\$ 2,305.2	\$ 2,506.3	\$ 2,427.1
Gross Profit	253.3	332.2	467.2	508.1	456.1
Total operating costs and expenses	406.6	344.6	360.1	355.5	353.3
Operating (loss) income	(153.3)	(12.4)	107.1	152.6	102.8
Total other expense	(114.8)	(98.6)	(127.5)	(138.8)	(149.8)
(Loss) income from continuing operations before taxes	(268.1)	(111.0)	(20.4)	13.8	(47.0)
Provision (benefit) for taxes on income	100.5	(41.1)	(17.8)	(22.0)	(14.8)
(Loss) income from continuing operations	(368.6)	(69.9)	(2.6)	35.8	(32.2)
Discontinued operations:					
(Loss) income from discontinued operations, net of income taxes	(7.2)	135.4	161.4	134.5	128.0
Loss on sale of discontinued operations, net of income taxes	—	—	(11.0)	(2.7)	—
Net (loss) income	(375.8)	65.5	147.8	167.6	95.8
Less: Net income (loss) attributable to noncontrolling interest, net of tax	—	—	3.9	25.8	(9.1)
Net (loss) income attributable to Manitowoc common shareholders	\$ (375.8)	\$ 65.5	\$ 143.9	\$ 141.8	\$ 104.9
Amounts attributable to the Manitowoc common shareholders:					
(Loss) income from continuing operations	\$ (368.6)	\$ (69.9)	\$ (6.9)	\$ 1.5	\$ (14.8)
(Loss) income from discontinued operations, net of income taxes	(7.2)	135.4	161.8	143.0	119.7
Loss on sale of discontinued operations, net of income taxes	—	—	(11.0)	(2.7)	—
Net (loss) income attributable to Manitowoc common shareholders	\$ (375.8)	\$ 65.5	\$ 143.9	\$ 141.8	\$ 104.9
Basic (loss) income per common share:					
(Loss) income from continuing operations attributable to Manitowoc common shareholders	\$ (2.68)	\$ (0.51)	\$ (0.05)	\$ 0.01	\$ (0.11)
(Loss) income from discontinued operations attributable to Manitowoc common shareholders	(0.05)	1.00	1.20	1.08	0.91
Loss on sale of discontinued operations, net of income taxes	—	—	(0.08)	(0.02)	—
Basic (loss) income per share attributable to Manitowoc common shareholders	\$ (2.73)	\$ 0.48	\$ 1.07	\$ 1.07	\$ 0.80
Diluted (loss) income per common share:					
(Loss) income from continuing operations attributable to Manitowoc common shareholders	\$ (2.68)	\$ (0.51)	\$ (0.05)	\$ 0.01	\$ (0.11)
(Loss) income from discontinued operations attributable to Manitowoc common shareholders	(0.05)	1.00	1.20	1.04	0.91
Loss on sale of discontinued operations, net of income taxes	—	—	(0.08)	(0.02)	—
Diluted (loss) income per share attributable to Manitowoc common shareholders	\$ (2.73)	\$ 0.48	\$ 1.07	\$ 1.05	\$ 0.80
Cash dividends per share	\$ —	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08
Average shares outstanding:					
Basic	137,767,109	136,036,192	134,934,892	132,894,179	131,447,895
Diluted	137,767,109	136,036,192	134,934,892	135,330,193	131,447,895

PROPERTY, PLANT AND EQUIPMENT										
Property, plant and equipment - net	\$	308.8	\$	410.7	\$	456.7	\$	438.5	\$	411.9
Capital expenditures		(45.9)		(54.9)		(59.5)		(77.1)		(55.5)
Depreciation		45.6		50.6		47.2		48.4		45.8
TOTAL ASSETS	\$	1,517.8	\$	3,562.5	\$	3,821.1	\$	3,976.1	\$	4,049.3
CAPITALIZATION										
Long-term obligations	\$	281.5	\$	1,397.6	\$	1,503.1	\$	1,500.5	\$	1,768.4
Total stockholders' equity		590.5		842.3		844.9		803.6		602.6

Notes to the table above:

- (1) Discontinued operations represent the results of operations of MFS through the Spin-Off date, March 4, 2016, and results of operations of our Chinese joint venture, Manitowoc Dong Yue, through the sale date, January 21, 2014.
- (2) As discussed in Note 2 to our Consolidated Financial Statements, in the fourth quarter of 2016 we changed our method of inventory costing for certain inventory to the first-in first-out (FIFO) method from the last-in first-out (LIFO) method. We applied this change in method of inventory costing by retrospectively adjusting the prior period financial statements.
- (3) Total assets includes assets of discontinued operations of \$0.0, \$1,755.7, \$1,899.6, \$1,958.4 and \$2,015.9 for the years ended 2016, 2015, 2014, 2013 and 2012, respectively.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with the consolidated financial statements and related notes appearing in Part II, Item 8 of the Annual Report on Form 10-K.

Overview: Manitowoc is a leading provider of engineered lifting equipment for the global construction industry, including lattice-boom cranes, tower cranes, mobile telescopic cranes and boom trucks. The Company has one reportable segment, the Crane business. The segment was identified using the “management approach,” which designates the internal organization that is used by management for making operating decisions and assessing performance.

During the first quarter of fiscal 2016, the Board of Directors of The Manitowoc Company, Inc. (“Manitowoc,” “MTW,” the “Company,” “we” and “us”) approved the tax-free Spin-Off of the Company’s foodservice business (“MFS” or “Foodservice”) into an independent, public company (the “Spin-Off”). To effect the Spin-Off, the Board declared a pro rata dividend of MFS common stock to MTW’s stockholders of record as of the close of business on February 22, 2016 (the “Record Date”), and the Company paid the dividend on March 4, 2016. Each MTW stockholder received one share of MFS common stock for every share of MTW common stock held as of the close of business on the Record Date.

In Management's Discussion and Analysis, unless otherwise indicated, references to Manitowoc, MTW and the Company refer to The Manitowoc Company, Inc. and its consolidated subsidiaries after giving effect to the Spin-Off, or, in the case of information as of dates or for periods prior to the Spin-Off, the consolidated entities of the Crane business and certain other assets and liabilities that were historically held at the MTW corporate level but were specifically identifiable and attributable to the Crane business.

As a result of the Spin-Off, the Consolidated Financial Statements and related financial information reflect MFS operations, assets, liabilities and cash flows as discontinued operations for all periods presented. Refer to Note 3, “Discontinued Operations,” for additional information regarding the Spin-Off.

Additionally, in the fourth quarter of 2016, the Company changed its method of inventory costing for certain inventory to the FIFO method from the LIFO method. The Company applied this change in method of inventory costing by retrospectively adjusting the prior period financial statements.

The following discussion and analysis covers key drivers behind our results for 2014 through 2016 and is broken down into three sections. First, we provide an overview of our results of operations for the years 2014 through 2016 on a consolidated basis. Next we discuss our market conditions, liquidity and capital resources, off-balance sheet arrangements and obligations and commitments. Finally, we provide a discussion of risk management techniques, contingent liability issues, critical accounting policies, impacts of future accounting changes and cautionary statements.

All dollar amounts, except per share amounts, are in millions of dollars throughout the tables included in Management’s Discussion and Analysis of Financial Conditions and Results of Operations unless otherwise indicated.

Results of Consolidated Operations

Millions of dollars	2016	2015	2014
Operations			
Net sales	\$ 1,613.1	\$ 1,865.7	\$ 2,305.2
Cost of sales	1,359.8	1,533.5	1,838.0
Gross Profit	253.3	332.2	467.2
Operating costs and expenses:			
Engineering, selling and administrative expenses	280.7	316.9	350.2
Asset impairment expense	96.9	15.3	—
Amortization of intangible assets	3.0	3.0	3.3
Restructuring expense	23.4	9.4	6.6
Other expense	2.6	—	—
Total operating costs and expenses	406.6	344.6	360.1
Operating (loss) income	(153.3)	(12.4)	107.1
Other (expense) income:			
Interest expense	(39.6)	(95.6)	(92.8)
Amortization of deferred financing fees	(2.2)	(4.2)	(4.4)
Loss on debt extinguishment	(76.3)	(0.2)	(25.5)
Other income (expense) - net	3.3	1.4	(4.8)
Total other expense	(114.8)	(98.6)	(127.5)
Loss from continuing operations before taxes	(268.1)	(111.0)	(20.4)
Provision (benefit) for taxes on income	100.5	(41.1)	(17.8)
Loss from continuing operations	(368.6)	(69.9)	(2.6)
Discontinued operations:			
(Loss) income from discontinued operations, net of income taxes	(7.2)	135.4	161.4
Loss on sale of discontinued operations, net of income taxes	—	—	(11.0)
Net (loss) income	(375.8)	65.5	147.8
Less: Net income attributable to noncontrolling interest, net of tax	—	—	3.9
Net (loss) income attributable to Manitowoc common shareholders	\$ (375.8)	\$ 65.5	\$ 143.9
Amounts attributable to the Manitowoc common shareholders:			
Loss from continuing operations	\$ (368.6)	\$ (69.9)	\$ (6.9)
(Loss) income from discontinued operations, net of income taxes	(7.2)	135.4	161.8
Loss on sale of discontinued operations, net of income taxes	—	—	(11.0)
Net (loss) income attributable to Manitowoc common shareholders	\$ (375.8)	\$ 65.5	\$ 143.9

Year Ended December 31, 2016 Compared to 2015
Net Sales

(in millions)	2016	2015	Change
Net Sales	\$ 1,613.1	\$ 1,865.7	(13.5)%

Consolidated net sales decreased 13.5% in 2016 to \$1.6 billion from \$1.9 billion in 2015. The decrease in net sales was primarily due to weaker demand in the Americas and Middle East regions for mobile cranes. Consolidated net sales were also unfavorably impacted by approximately \$9.5 million from unfavorable changes in foreign currency exchange rates.

Gross Profit

(in millions)	2016		2015		Change
Gross Profit	\$	253.3	\$	332.2	(23.8)%
Gross Profit %		15.7%		17.8%	

Gross profit for the year ended December 31, 2016 decreased by 23.8% to \$253.3 million compared to \$332.2 million for the year ended December 31, 2015. The decrease in gross profit was attributable primarily to the decrease in sales volume discussed above and unfavorable manufacturing absorption due to lower production volumes, particularly in North America and Germany, partially offset by manufacturing cost reduction initiatives. As a result, the gross profit percentage decreased in 2016 to 15.7% from 17.8% in 2015.

Engineering, Selling and Administrative Expenses

(in millions)	2016		2015		Change
Engineering, selling and administrative expenses	\$	280.7	\$	316.9	(11.4)%

Engineering, selling and administrative (“ES&A”) expenses for the year ended December 31, 2016 decreased \$36.2 million to \$280.7 million compared to \$316.9 million for the year ended December 31, 2015. This decrease was driven primarily by decrease in wages and benefits due to headcount reductions and discretionary cost controls.

Asset Impairment Expense

(in millions)	2016		2015		Change
Asset impairment expense	\$	96.9	\$	15.3	*

* Measure not meaningful

Asset impairment expense for the year ended December 31, 2016 was \$96.9 million compared to \$15.3 million for the year ended December 31, 2015. In the third quarter of 2016, the Company recorded \$96.9 million in asset impairment expense. In conjunction with the decision to close its manufacturing location in Manitowoc, Wisconsin, it permanently suspended implementation of its SAP enterprise resource planning (“ERP”) platform and recorded a write-off of \$58.6 million related to SAP construction-in-progress and \$18.6 million related to SAP and other IT assets. This amount also included a \$13.8 million write-down to fair value of the Company's fixed assets at the Manitowoc, Wisconsin manufacturing facility. The impairment recorded in 2015 resulted from the write-down of facilities in Brazil, which is currently shut down, and Slovakia, which was sold in 2016.

Restructuring Expense

(in millions)	2016		2015		Change
Restructuring expense	\$	23.4	\$	9.4	148.9%

Restructuring expense for the year ended December 31, 2016 totaled \$23.4 million compared to \$9.4 million in 2015. These costs related primarily to employee termination benefits associated with workforce reductions. The workforce reductions in 2016 are part of ongoing manufacturing and operations rationalization programs, including the planned consolidations of the Company's manufacturing facilities in Manitowoc, Wisconsin into its Shady Grove, Pennsylvania facility and Fanzeres, Portugal into its Baltar, Portugal facility.

During the third quarter of 2016, the Company announced its intent to relocate its crawler crane manufacturing operations located in Manitowoc, Wisconsin to Shady Grove, Pennsylvania, with completion anticipated by the middle of 2017. This initiative is intended to increase operational efficiency, and thereby increase future operating results and liquidity, allowing the Company to reallocate resources to invest in future growth.

Including amounts already incurred, the Company expects to incur cash charges related to severance costs and other employment-related benefits in the range of \$10 to \$15 million, capital expenditures in the range of \$10 to \$15 million and other costs in the range of \$15 to \$20 million related to the plant consolidation into Shady Grove, Pennsylvania. The Company anticipates that the majority of the cash charges will be settled by the end of 2017. Non-cash charges, primarily related to fixed assets and inventory related charges are expected to be in the range of \$20 to \$25 million and are anticipated to be recognized by the end of 2017.

Additionally, restructuring expense in the twelve months ended December 31, 2016, and December 31, 2015 included \$2.3 million and \$3.5 million, respectively, of expense related to executive severance. See further detail at Note 20, "Restructuring."

Interest Expense & Amortization of Deferred Financing Fees

(in millions)	2016	2015	Change
Interest expense	\$ 39.6	\$ 95.6	(58.6)%
Amortization of deferred financing fees	\$ 2.2	\$ 4.2	(47.6)%

Interest expense for the year ended December 31, 2016 totaled \$39.6 million versus \$95.6 million for the year ended December 31, 2015. The decrease in interest expense of \$56.0 million for the year ended December 31, 2016 compared to the prior year was a result of lower average debt balance due to debt restructuring as part of the Spin-Off. Amortization expense for deferred financing fees was \$2.2 million for the year ended December 31, 2016 as compared to \$4.2 million in 2015. The decrease in amortization expense for deferred financing fees was related to the lower balance of deferred financing fees as a result of the redemption of the Prior 2020 and Prior 2022 Notes during the Spin-Off. See further detail at Note 11, "Debt."

Loss on Debt Extinguishment

(in millions)	2016	2015	Change
Loss on debt extinguishment	\$ 76.3	\$ 0.2	*

* Measure not meaningful

Loss on debt extinguishment for the year ended December 31, 2016 totaled \$76.3 million, compared to \$0.2 million in 2015. The loss on debt extinguishment for 2016 consisted of:

- \$31.5 million related to the March 3, 2016 redemption of the Prior 2020 Notes, which included \$24.6 million related to the redemption premium and \$6.9 million related to the write-off of deferred financing fees;
- \$34.6 million on the redemption of the Prior 2022 Notes, comprised of \$31.2 million related to the redemption premium and \$3.4 million related to write-off of deferred financing fees;
- \$5.9 million on the termination of the Prior Senior Credit Facility as a result of the write-off of deferred financing expenses; and
- \$4.3 million loss on the termination of interest rate swaps related to the Prior Senior Credit Facility.

Other Income - Net

(in millions)	2016	2015	Change
Other income - net	\$ 3.3	\$ 1.4	*

* Measure not meaningful

Other income - net for the year ended December 31, 2016 was \$3.3 million compared to other income - net of \$1.4 million for the prior year. The change in other income-net in 2016 as compared to 2015 relates primarily to foreign currency exchange remeasurement.

Income Taxes

(in millions)	2016	2015	Change
Effective annual tax rate	(37.5)%	37.0%	
Provision (benefit) for taxes on income	\$ 100.5	\$ (41.1)	*

* Measure not meaningful

The effective tax rate for the year ended December 31, 2016 was negative 37.5% compared to the effective tax rate of 37.0% for the year ended December 31, 2015.

The 2016 effective tax rate was unfavorably impacted by the establishment of valuation allowance reserves against the Company's deferred tax assets in several jurisdictions, most notably the United States, as these jurisdictions moved to cumulative three-year loss positions during the year.

See further detail at Note 13, "Income Taxes."

(Loss) income from Discontinued Operations

(in millions)	2016		2015		Change
(Loss) income from discontinued operations	\$	(7.2)	\$	135.4	*

* Measure not meaningful

The results from discontinued operations were a loss of \$7.2 million and income of \$135.4 million, net of income taxes, for the years ended December 31, 2016 and 2015, respectively. The activity from discontinued operations in 2016 and 2015 are primarily the result of the Spin-Off of the Foodservice business. See additional discussion at Note 3, "Discontinued Operations."

Year Ended December 31, 2015 Compared to 2014**Net Sales**

(in millions)	2015		2014		Change
Net Sales	\$	1,865.7	\$	2,305.2	(19.1)%

Consolidated net sales decreased 19.1% in 2015 to \$1.9 billion from \$2.3 billion in 2014. The Company experienced a sharp drop in demand for its products in 2015. The overall decrease was primarily due to weaker demand in the Americas region for rough terrain and boom truck cranes. Consolidated net sales were also unfavorably impacted by approximately \$151.2 million due to changes in foreign currency exchange rates.

Gross Profit

(in millions)	2015		2014		Change
Gross Profit	\$	332.2	\$	467.2	(28.9)%
Gross Profit %		17.8%		20.3%	

Gross profit for the year ended December 31, 2015 decreased 28.9% to \$332.2 million compared to \$467.2 million for the year ended December 31, 2014. The decrease in gross profit was attributable primarily to the decrease in sales volume discussed above and unfavorable absorption given the lower sales volumes, partially offset by manufacturing cost reduction initiatives.

Engineering, Selling and Administrative Expenses

(in millions)	2015		2014		Change
Engineering, selling and administrative expenses	\$	316.9	\$	350.2	(9.5)%

ES&A expenses for the year ended December 31, 2015 decreased \$33.3 million to \$316.9 million compared to \$350.2 million for the year ended December 31, 2014. This decrease was driven by changes in foreign currency exchange rates and decreases in wages and benefits due to headcount reductions and cost control initiatives.

Asset Impairment Expense

(in millions)	2015		2014		Change
Asset impairment expense	\$	15.3	\$	—	*

* Measure not meaningful

Asset impairment expense for the year ended December 31, 2015 was \$15.3 million; there was no impairment expense for the year ended December 31, 2014. The impairment expense recorded in 2015 resulted from the write-down of facilities in Brazil and Slovakia.

Restructuring Expense

(in millions)	2015		2014		Change
Restructuring expense	\$	9.4	\$	6.6	42.4%

Restructuring expense for the year ended December 31, 2015 totaled \$9.4 million compared to \$6.6 million in 2014. These expenses related to restructuring plans to reduce the cost structure of crane operations through site closings, consolidations and

reductions in workforce across the globe. Additionally, the 2015 restructuring expense included \$3.5 million of expense related to executive severance. See further detail at Note 20, "Restructuring."

Interest Expense & Amortization of Deferred Financing Fees

(in millions)	2015		2014		Change
Interest expense	\$	95.6	\$	92.8	3.0 %
Amortization of deferred financing fees	\$	4.2	\$	4.4	(4.5)%

Interest expense for the year ended December 31, 2015 totaled \$95.6 million versus \$92.8 million for the year ended December 31, 2014 . The increase in interest expense of \$2.8 million for the year ended December 31, 2015 compared to the prior year was the result of lower 2014 interest expense due to the accelerated amortization of the swap monetization gain of \$8.3 million resulting from the redemption of the 2018 Notes, which was presented as a reduction to interest expense for this period. Amortization expense for deferred financing fees was \$4.2 million for the year ended December 31, 2015 as compared to \$4.4 million in 2014 . The decrease in amortization expense for deferred financing fees of \$0.2 million was related to the lower balance of deferred financing fees as a result of the redemption of the 2018 Notes and the Company's debt reduction efforts. See further detail at Note 11, "Debt."

Loss on Debt Extinguishment

(in millions)	2015		2014		Change
Loss on debt extinguishment	\$	0.2	\$	25.5	*

* Measure not meaningful

Loss on debt extinguishment for the year ended December 31, 2015 totaled \$0.2 million , compared to \$25.5 million in 2014 . The loss on debt extinguishment in 2014 consisted of \$23.3 million related to the redemption of the former 2018 Notes, of which \$19.0 million related to the redemption premium and \$4.3 million related to the write-off of deferred financing fees. A \$2.0 million loss in 2014 related to the write-off of deferred financing fees as a result of the Senior Credit Facility refinancing, and \$0.2 million loss related to the accelerated paydown of Term Loan B associated with our New Senior Credit Facility.

Other Income (Expense) - Net

(in millions)	2015		2014		Change
Other income (expense) - net	\$	1.4	\$	(4.8)	*

* Measure not meaningful

Other income (expense) - net for the year ended December 31, 2015 was income of \$1.4 million compared to expense of \$4.8 million for the prior year. The change in other income (expense) - net in 2015 as compared to 2014 relates primarily to foreign currency exchange remeasurement.

Income Taxes

(in millions)	2015		2014		Change
Effective annual tax rate		37.0%		87.3%	
Benefit for taxes on earnings	\$	(41.1)	\$	(17.8)	*

* Measure not meaningful

The effective tax rate for the year ended December 31, 2015 was 37.0% compared to 87.3% for the year ended December 31, 2014 . Year over year effective annual tax rate changes were primarily driven by the near break-even 2014 pretax book income. See further detail at Note 13, "Income Taxes."

Income from Discontinued Operations

(in millions)	2015		2014		Change
Income from discontinued operations	\$	135.4	\$	161.4	(16.1)%

The results from discontinued operations was income of \$135.4 million and \$161.4 million , net of income taxes, for the years ended December 31, 2015 and 2014 , respectively. The income from discontinued operations in 2015 and 2014 relates primarily to MFS, which was classified as discontinued operations in the first quarter of 2016, as well as administrative costs of various businesses disposed of in prior years. See additional discussion at Note 3, "Discontinued Operations."

Loss on Sale of Discontinued Operations

(in millions)	2015	2014	Change
Loss on sale of discontinued operations	\$ —	\$ 11.0	*

* Measure not meaningful

Loss on sale of discontinued operations was \$11.0 million for the year ended December 31, 2014 . This was due to the sale of Manitowoc Dong Yue for a loss of \$9.9 million in the first quarter of 2014 and the settlement of a pension obligation related to a previously disposed entity for a loss of \$1.1 million in the third quarter of 2014. There were no losses on the sale of discontinued operations for the year ended December 31, 2015 . See additional discussion at Note 3, “Discontinued Operations.”

Net Income Attributable to Noncontrolling Interest

(in millions)	2015	2014	Change
Net income attributable to noncontrolling interest	\$ —	\$ 3.9	*

* Measure not meaningful

Net income attributable to noncontrolling interest was from our former Chinese joint venture, Manitowoc Dong Yue, which was sold in January 2014; therefore, for the year ended December 31, 2015 , there was no net income attributable to a noncontrolling interest. The net income of \$3.9 million attributable to the minority partner in connection with Manitowoc Dong Yue for 2014 was primarily due to loan forgiveness resulting in income of \$35.6 million by the joint venture partner shown as part of net income attributable to noncontrolling interest, net of income taxes, which effectively reduced net income attributable to Manitowoc shareholders. See Note 3, “Discontinued Operations,” for further details on this transaction.

Non-GAAP Measures

The Company uses EBITDA, Adjusted EBITDA and Adjusted operating loss, which are non-GAAP financial measures, as additional metrics to evaluate the Company’s performance.

The Company defines EBITDA as income (loss) before interest, taxes, depreciation and amortization. The Company defines Adjusted EBITDA as EBITDA plus the addback of restructuring expense, asset impairment expense and other (expense) income - net. The Company defines Adjusted operating loss as Adjusted EBITDA excluding the addback of depreciation. The Company believes these non-GAAP measures provide important supplemental information to readers regarding business trends that can be used in evaluating its results of operations because these financial measure provide a consistent method of comparing financial performance and are commonly used by investors to assess performance. These non-GAAP financial measures should be considered together with the GAAP financial information provided herein.

The Company's Adjusted EBITDA and Adjusted operating loss for the year ended December 31, 2016 was income of \$18.2 million and a loss of \$27.4 million, respectively. The reconciliation of GAAP net (loss) income to EBITDA, and further to Adjusted EBITDA, Adjusted operating (loss) income and GAAP operating (loss) income is as follows (in millions):

	2016	2015	2014
Net (loss) income	\$ (375.8)	\$ 65.5	\$ 143.9
Loss (income) from discontinued operations	7.2	(135.4)	(161.4)
Loss on sale of discontinued operations	—	—	11.0
Net income attributable to noncontrolling interest	—	—	3.9
Interest expense and amortization of deferred financing fees	41.8	99.8	97.2
Income taxes	100.5	(41.1)	(17.8)
Depreciation expense	45.6	50.6	47.2
Amortization of intangible assets	3.0	3.0	3.3
EBITDA	(177.7)	42.4	127.3
Restructuring expense	23.4	9.4	6.6
Asset impairment expense	96.9	15.3	—
Other expense (income) - net (1)	75.6	(1.2)	30.3
Adjusted EBITDA	18.2	65.9	164.2
Depreciation expense	(45.6)	(50.6)	(47.2)
Adjusted operating (loss) income	(27.4)	15.3	117.0
Restructuring expense	(23.4)	(9.4)	(6.6)
Asset impairment expense	(96.9)	(15.3)	—
Amortization of intangible assets	(3.0)	(3.0)	(3.3)
Other operating costs and expenses	(2.6)	—	—
GAAP operating (loss) income	\$ (153.3)	\$ (12.4)	\$ 107.1

(1) Other expense (income) - net includes loss on debt extinguishment, other (expense) income and other (expense) income - net.

Covenant compliant EBITDA was \$49.9 million as of December 31, 2016 on a trailing basis since April 1, 2016, as defined by the ABL Revolving Credit Facility. The calculation of covenant compliant EBITDA has certain limitations and restrictions on addbacks and has been included for informational purposes only.

Market Conditions and Outlook

Although we have observed some pockets of stabilization across the globe, the overall crane business remains weak, with demand at historically low levels. Manitowoc continues to maintain or increase its market share in selected product categories, but based on current activity levels we do not anticipate any meaningful recovery in the global demand for cranes in 2017, which is reflected in the guidance below.

Full year 2017 guidance:

- Net sales - down 8% to 10% over 2016;
- Adjusted EBITDA* - approximately \$41 to \$59 million;
- Adjusted operating income margin* - approximately zero to 1%;
- Depreciation expense - approximately \$40 to \$45 million;
- Amortization of intangible assets - approximately \$2 to \$2.5 million; and
- Capital expenditures - approximately \$30 million.

* Adjusted EBITDA and Adjusted operating income margin are non-GAAP financial measures that should be considered together with the GAAP financial information provided herein. See “Non-GAAP Financial Measures” in the preceding “Results of Consolidated Operations” section. Because actual GAAP results will be subject to various factors that are outside of the Company’s control and/or are not known at this time, the Company is not able to provide comparable GAAP expectations or a reconciliation of these expected ranges to GAAP without unreasonable expense and effort.

A significant portion of Manitowoc’s backlog entering 2016 was comprised of VPC crawler cranes which had been booked in previous years. The vast majority of this backlog was shipped and recognized as revenue in the first half of 2016, and due to continued weak market conditions is not anticipated to repeat in 2017. As a result, our 2017 revenue guidance is more consistent with revenue levels experienced in the second half of 2016.

The Company is cautiously optimistic regarding the stated priorities of the new U.S. administration to invest in infrastructure projects, but this may not translate into new crane orders quickly, or at all, given the nature of potential projects. Further, any benefits may be offset by negative effects of any administration changes in international trade policy. Additionally, the supply of underutilized cranes needs to be absorbed into the market before we will see any inflection in the demand for mobile cranes.

Manitowoc’s products are used in many energy-related industries, and while activity and oil prices increased in the second half of 2016, we do not foresee a meaningful increase in demand for our mobile products in the U.S. and Middle East until there is a sustained period of increased oil prices. Another area of concern is the continued strength of the U.S. dollar against other global currencies and the negative impact it has on price competitiveness for our U.S.-manufactured products versus our international competition.

We believe our Crane Care business is not only a key differentiator for us, but is also especially important to our customers as key end markets rebound and crane utilization increases to ensure uptime availability.

Our end markets remain difficult to predict and forecasting remains challenging due to mixed views from our various sources for leading indicators and customer sentiment. Different industries and different geographic markets can show significant deviations in economic and demand outlook depending on the circumstances within their environments and outlooks can change rapidly during the year. We continue to use what we believe to be the best information available, along with our own experiences and knowledge of our customers and the industries they serve, to forecast future demand.

Our business strategy is driven by the principles of The Manitowoc Way, which acts as a foundation for our organic initiatives. The Manitowoc Way is centered on four strategic priorities; Margin Expansion, Growth, Innovation, and Velocity.

The first key element of our strategy is margin expansion. We continue to align our manufacturing capacity and our build schedule with the current demand levels. Our manufacturing relocations in the U.S. and Portugal remain on schedule. We continue to assess the overall headcount of the business and ended 2016 with approximately 4,900 employees, down approximately 1,500 from the end of 2015.

Our next strategic priority is growth. Product quality and reliability are key to a crane operator's buying decision. We continue to take decisive actions to ensure that all our products meet the quality expectations of our customers. This is a cultural shift for our organization, but we are already seeing the benefits in the eyes of our customers. In terms of growing the business in new markets, in 2016 we delivered three test cranes to the U.S. Army, which are undergoing rigorous testing. We continue to work closely with the U.S. Government to ensure these cranes meet their specifications. Upon successful completion of project testing, we anticipate beginning serial production in the fourth-quarter of 2017. We also continue to focus and grow our aftermarket support through our Crane Care brand by investing in additional resources, which we feel is a key differentiator for Manitowoc.

Our third strategic priority is innovation. In 2016, we continued to invest in innovation while increasing our focus on the Voice of the Customer. Innovation in the crane industry is an elegant balance of reliability, simplicity, and advanced technology.

Our commitment to product development is unwavering, as evidenced by our steady investments in research and development, along with the launch of 17 new crane models in 2016.

Lastly, our fourth key strategic priority is velocity which refers to creating a culture of continuous improvement, adding value in every aspect of every job, every day. Velocity touches all of our other key priorities using the principles of The Manitowoc Way. We continue to hold Manitowoc Way summits where we train our employees to use Lean tools, which continue to deliver results in eliminating waste and improving productivity throughout the enterprise.

From a longer-term perspective, we are among the world's leading sources of lifting solutions, with what we believe to be the most recognized brands and the broadest support footprint in the industry. We offer the most comprehensive range of lifting solutions with a legacy of continuing innovation that sets us apart in our industry. Globally, we anticipate continued depressed levels of near-term crane demand, but longer-term we believe there will be a higher growth, multi-year recovery driven by increasing global demand for modern infrastructure and energy, and we believe we are well-positioned to support these end markets anywhere in the world. We have a resilient business, with a strong global distribution network and a large installed base of equipment complemented by what we believe to be the best and most experienced workforce in the industry. As a result, we expect to generate increasing profits as we make progress on our strategic goals and the world economy improves with the markets our products serve experiencing growth once again.

Liquidity and Capital Resources

Cash Flows. The table below shows a summary of cash flows for fiscal 2016, 2015, and 2014 (in millions):

	2016	2015	2014
Net cash used for operating activities of continuing operations	\$ (122.4)	\$ (25.5)	\$ (116.7)
Net cash (used for) provided by operating activities of discontinued operations	(49.9)	126.3	197.7
Net cash (used for) provided by operating activities	<u>\$ (172.3)</u>	<u>\$ 100.8</u>	<u>\$ 81.0</u>
Net cash used for investing activities of continuing operations	\$ (39.1)	\$ (45.0)	\$ (41.0)
Net cash (used for) provided by investing activities of discontinued operations	(2.4)	59.1	(25.3)
Net cash (used for) provided by investing activities	<u>\$ (41.5)</u>	<u>\$ 14.1</u>	<u>\$ (66.3)</u>
Net cash provided by (used for) financing activities of continuing operations	\$ 219.2	\$ (112.7)	\$ 11.5
Net cash provided by (used for) financing activities of discontinued operations	0.2	(0.2)	(7.5)
Net cash provided by (used for) by financing activities	<u>\$ 219.4</u>	<u>\$ (112.9)</u>	<u>\$ 4.0</u>

Cash flow from operating activities of continuing operations in 2016 was a use of \$122.4 million compared to cash used for operating activities of \$25.5 million in 2015. A total of \$69.9 million in cash and cash equivalents were on-hand at December 31, 2016 versus \$31.5 million on-hand at December 31, 2015.

The decrease in cash flow from operating activities from continuing operations for the year ended December 31, 2016 compared to 2015 was primarily due to lower profitability, which was driven by a decline in revenues. The decrease in revenue resulted in a reduction in manufacturing activity, which significantly lowered the amount of trade payables year over year. The cash used by the change in trade payables was partially offset by improvements in the collection of receivables and inventory management.

Cash flow from operations of continuing operations during 2015 was a use of \$25.5 million compared to a use of \$116.7 million in 2014. The decrease in cash used for continuing operations in 2015 versus 2014 was primarily due to higher amounts of cash paid towards accounts payable and accrued liabilities in 2014. We had \$31.5 million in cash and cash equivalents on-hand at December 31, 2015 versus \$51.5 million on-hand at December 31, 2014.

In 2016, cash flows used for investing activities from continuing operations were \$39.1 million and consisted primarily of capital expenditures of \$45.9 million, which were used to support the growth of the business, offset by proceeds from the sale of property, plant and equipment.

Cash flows used by investing activities of continuing operations were \$45.0 million in 2015 compared to \$41.0 million in 2014. In both years, cash was used primarily related to capital expenditures.

Cash flows provided by financing activities of continuing operations during 2016 totaled \$219.2 million and consisted primarily of a dividend received from the spun-off subsidiary in the amount of \$1,361.7 million along with long-term debt proceeds of \$272.1 million, offset by payments on long-term debt of \$1,389.0 million.

Cash flows used for financing activities of continuing operations during 2015 consisted primarily of payments on long-term debt. Cash flows provided by financing activities of continuing operations during 2014 consisted primarily of net borrowings on long-term debt.

On March 3, 2016, the Company entered into a \$225.0 million Asset Based Revolving Credit Facility (as amended, the “ABL Revolving Credit Facility”) with Wells Fargo Bank, N.A. as administrative agent, and JP Morgan Chase Bank, N.A. and Goldman Sachs Bank USA as joint lead arrangers. The ABL Revolving Credit Facility includes a \$75.0 million Letter of Credit Facility, \$10.0 million of which is available to the German borrower, with a term of 5 years. Borrowings under the ABL Revolving Credit Facility are secured by inventory and fixed assets of the Loan Parties.

As of December 31, 2016, the Company had no borrowings outstanding on the ABL Revolving Credit Facility. During the year ended December 31, 2016, the highest daily borrowing was \$30.0 million and the average borrowing was \$8.1 million, while the average annual interest rate was 2.51%. The interest rate of the ABL Revolving Credit Facility fluctuates based on excess availability. As of December 31, 2016, the spreads for LIBOR and Prime borrowings were 1.50% and 0.50%, respectively, with excess availability of approximately \$144.0 million, which represents revolver borrowing capacity of \$160.4 million less letters of credit outstanding of \$16.4 million.

The ABL Revolving Credit Facility contains a Fixed Charge Coverage springing financial covenant, which measures the ratio of (i) consolidated earnings before interest, taxes, depreciation, amortization and other adjustments as defined in the credit agreement, to (ii) fixed charges, as defined in the related credit agreement. The financial covenant is triggered only if the Company fails to maintain minimum levels of availability under the credit facility. If triggered, the Company must maintain a Minimum Fixed Charge Coverage Ratio of 1.00 to 1.

The ABL Revolving Credit Facility replaced the \$1,050.0 million Third Amended and Restated Credit Agreement (the “Prior Senior Credit Facility”), which was entered into on January 3, 2014 with JPMorgan Chase Bank, N.A., as Administrative Agent, Deutsche Bank Securities Inc., Bank of America, N.A., Wells Fargo Bank, National Association, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., BMO Harris Bank N.A. and Rabobank Nederland, New York Branch as Documentation Agents. The Prior Senior Credit Facility included three different loan facilities. The first was a revolving facility in the amount of \$500.0 million, with a term of five years. The second facility was a Term A Loan in the aggregate amount of \$350.0 million, with a term of five years. The third facility was a Term B Loan in the amount of \$200.0 million, with a term of seven years.

Prior to termination of the Prior Senior Credit Facility, the highest daily borrowing was \$234.0 million, the average borrowing was \$117.4 million, and the average annual interest rate was 3.5%.

As of December 31, 2015, the Company had outstanding \$175.0 million notional amount of float-to-fixed interest rate swaps outstanding related to Term Loan A Prior Senior Credit Facility that were designated as cash flow hedges. In 2016, these swaps were terminated along with the Prior Senior Credit Facility resulting in a loss of \$5.9 million related to the write-off of deferred financing expenses and \$4.3 million related to termination of interest rate swaps.

On February 18, 2016, the Company entered into an indenture with Wells Fargo Bank, N.A., as trust and collateral agent, and completed the sale of \$260.0 million aggregate principal amount of its 12.750% Senior Secured Second Lien Notes due August 15, 2021 (the “2021 Notes”). Interest on the 2021 Notes is payable semi-annually in February and August of each year. The 2021 Notes were sold pursuant to exemptions from registration under the Securities Act of 1933. As of December 31, 2016, the Company had no outstanding interest rate swaps related to the 2021 Notes.

Both the ABL Revolving Credit Facility and 2021 Notes include customary covenants and events of default which include, without limitation, restrictions on indebtedness, capital expenditures, restricted payments, disposals, investments and acquisitions.

On March 3, 2016, the Company redeemed its 8.50% Senior Notes due 2020 (the “Prior 2020 Notes”) and 5.875% Senior Notes due 2022 (the “Prior 2022 Notes”) for \$625.5 million and \$330.5 million, or 104.250% and 110.167% as expressed as a percentage of the principal amount, respectively.

The redemption of the Prior 2020 Notes resulted in a loss on debt extinguishment of \$31.5 million during the first quarter of 2016 and consisted of \$24.6 million related to redemption premium and \$6.9 million related to write-off of deferred financing fees. Previously monetized derivative assets related to fixed-to-float interest rate swaps were treated as an increase to the debt balance of the Prior 2020 Notes and were being amortized to interest expense over the life of the original swap. As a result of the redemption, the remaining monetization balance of \$11.8 million as of March 3, 2016 was amortized as a reduction to interest expense during the first quarter of 2016.

The redemption of the Prior 2022 Notes resulted in a loss on debt extinguishment of \$34.6 million during the first quarter of 2016 and consisted of \$31.2 million related to redemption premium and \$3.4 million related to write-off of deferred financing fees. Previously, derivative liabilities related to termination of fixed-to-float swaps were treated as a decrease to the debt balance of the Prior 2022 Notes and were being amortized to interest expense over the life of the original swap. As a result of the redemption, the remaining balance of \$0.7 million as of March 3, 2016 was amortized as an increase to interest expense during the first quarter of 2016.

Outstanding balances under the Company's Prior Senior Credit Facility and Prior 2020 and Prior 2022 Notes were repaid with proceeds from the 2021 Notes and a cash dividend from MFS in conjunction with the Spin-Off.

The balance sheet values of the Senior Notes as of December 31, 2016 and December 31, 2015 are not equal to the face value of the Senior Notes because of gains (losses) of previously terminated fixed-to-float interest rate hedges and original issue discounts included in the applicable balance sheet values (see Note 5, “Derivative Financial Instruments,” of the Consolidated Financial Statements for more information).

As of December 31, 2016, the Company had outstanding \$35.7 million of other indebtedness that has a weighted-average interest rate of approximately 5.4%. This debt includes balances on local credit lines and capital lease obligations.

The aggregate scheduled maturities of outstanding debt obligations in subsequent years are as follows (in millions):

Year		
2017	\$	12.4
2018		5.8
2019		5.7
2020		3.8
2021		263.3
Thereafter		0.7
Total	\$	291.7

- The table of scheduled maturities above does not agree to the Company’s total debt as of December 31, 2016 as shown on the Consolidated Balance Sheet and in Note 11, “Debt” due to \$10.2 million of Original Issue Discount (“OID”).

As of December 31, 2016, the Company was in compliance with all affirmative and negative covenants in its debt instruments, inclusive of the financial covenants pertaining to the ABL Revolving Credit Facility and 2021 Notes. Based upon our current plans and outlook, we believe the Company will be able to comply with these covenants during the subsequent 12 months.

The Company maintains an accounts receivable securitization program with a commitment size of \$75.0 million, whereby transactions under the program are accounted for as sales in accordance with ASC Topic 860, “Transfers and Servicing.”

On March 3, 2016, the Company replaced the Fifth Amended and Restated Receivables Purchase Agreement dated December 15, 2014 (“Prior RPA”) and entered into a Receivables Purchase Agreement (“RPA”) among Manitowoc Funding, LLC (“MTW Funding”), as Seller, The Manitowoc Company, Inc., as Servicer, and Wells Fargo Bank, N.A., as Purchaser and as Agent.

Under the RPA (and the related Purchase and Sale Agreements referenced in the RPA), the Company’s domestic trade accounts receivable are sold to MTW Funding which, in turn, sells, conveys, transfers and assigns to a third-party financial institution (“Purchaser”), all of MTW Funding's rights, title and interest in a pool of receivables to the Purchaser.

The Purchaser receives ownership of the pool of receivables in each instance. New receivables are purchased by MTW Funding and resold to the Purchaser as cash collections and reduce previously sold investments. The Company acts as the servicer (in such capacity, the “Servicer”) of the receivables and, as such, administers, collects and otherwise enforces the receivables. The Servicer is compensated for doing so on terms that are generally consistent with what would be charged by an unrelated servicer. The Servicer initially receives payments made by obligors on the receivables but is required to remit those payments to the Purchaser in accordance with the RPA. The Purchaser has no recourse for uncollectible receivables.

Trade accounts receivables sold to the Purchaser and being serviced by the Company totaled \$19.5 million and \$64.2 million as of December 31, 2016 and December 31, 2015, respectively.

Sales of trade receivables under the program are reflected as a reduction of accounts receivable in the accompanying Consolidated Balance Sheets, and the proceeds received, including collections on the deferred purchase price notes, are included in cash flows from operating activities in the accompanying Consolidated Statements of Cash Flows. The Company deems the interest rate risk related to the deferred purchase price notes to be de minimis, primarily because the average collection cycle of the related receivables is less than 60 days.

Due to the short collection cycle, as well as the Company’s collection history, the fair value of the Company’s deferred purchase price notes approximates book value. The fair value of the deferred purchase price notes recorded as of December 31, 2016 and December 31, 2015 was \$30.6 million and \$54.1 million, respectively, and is included in accounts receivable in the accompanying Consolidated Balance Sheets.

The securitization program contains customary affirmative and negative covenants. Among other restrictions, these covenants require the Company to meet specified financial tests, which include a minimum fixed charge coverage ratio which is the same as the covenant ratio required per the ABL Revolving Credit Facility. As of December 31, 2016, the Company was in compliance with all affirmative and negative covenants inclusive of the financial covenants pertaining to the RPA, as amended. Based on management’s current plans and outlook, it believes the Company will be able to comply with these covenants during the subsequent twelve months.

The Company's Prior RPA was entered into on December 15, 2014. Under the Prior RPA (and the related Purchase and Sale Agreements referenced in the Prior RPA), the Company’s domestic trade accounts receivable were sold to U.S. Seller and certain of the Company’s non-U.S. trade accounts receivable were sold to Cayman Seller. The U.S. Seller and Cayman Seller each then sold, conveyed, transferred and assigned to a third-party financial institution (“Purchaser”), all of the right, title and interest in and to the pool of receivables to the Purchaser.

The Prior RPA was subsequently amended to make various changes; such as in the originators and servicers thereunder and in the obligations of various MFS-related entities, generally in anticipation of the Spin-Off.

See Note 12, “Accounts Receivable Securitization” for further information regarding these arrangements.

We spent a total of \$45.9 million during 2016 for capital expenditures. We continued to fund capital expenditures intended to improve the cost structure of our business, invest in new processes, products and technology, maintain high-quality production standards and complete certain production capacity expansions. For the year ended December 31, 2016, depreciation was \$45.6 million.

Our debt position at various times increases our vulnerability to general adverse industry and economic conditions, and results in a meaningful portion of our cash flow from operations being used for payment of interest on our debt. This could potentially limit our ability to respond to market conditions or take advantage of future business opportunities. Our ability to service our debt is dependent upon many factors, some of which are not subject to our control, such as general economic, financial, competitive, legislative, and regulatory factors. In addition, our ability to borrow additional funds under the revolving credit facility in the future will depend on our meeting the financial covenants contained in the ABL Revolving Credit Facility, even after taking into account such new borrowings.

Our revolving credit facility, or other future facilities, may be used for working capital requirements, capital expenditures, funding future acquisitions, and other operating, investing and financing needs. We believe that our available cash, ABL Revolving Credit Facility, cash generated from future operations, and access to public debt and equity markets will be adequate to fund our capital and debt financing requirements for the foreseeable future.

Our liquidity positions as of December 31, 2016 and 2015 were as follows:

(in millions)	2016		2015	
Cash and cash equivalents (1)	\$	69.9	\$	63.4
Revolver borrowing capacity		160.4		500.0
Less: outstanding letters of credit		(16.4)		(7.1)
Total liquidity	\$	213.9	\$	556.3

- (1) Cash and cash equivalents for 2015 includes \$31.9 million in cash from discontinued operations which is included on the balance sheet as current assets of discontinued operations.

The Company has not provided for additional U.S. income taxes on approximately \$474.2 million of undistributed earnings of consolidated non-U.S. subsidiaries included in stockholders' equity. Such earnings could become taxable upon sale or liquidation of these non-U.S. subsidiaries or upon dividend repatriation of cash balances. It is not practicable to estimate the amount of the unrecognized tax liability on such earnings. At December 31, 2016, approximately \$13.6 million of the Company's total cash and cash equivalents were held by its foreign subsidiaries. This cash is associated with earnings that the Company has asserted are permanently reinvested. The Company has no current plans to repatriate cash or cash equivalents held by its foreign subsidiaries because it plans to reinvest such cash and cash equivalents to support its operations and continued growth plans outside the U.S. through the funding of capital expenditures, acquisitions, research, operating expenses or other similar cash needs of these operations. Further, the Company does not currently forecast a need for these funds in the U.S. because its U.S. operations and debt service are supported by the cash generated by its U.S. operations.

Management also considers the following regarding liquidity and capital resources to identify trends, demands, commitments, events and uncertainties that require disclosure:

- A. *Our ABL Revolving Credit Facility and Senior Notes require us to comply with certain financial ratios and tests.* We were in compliance with these covenants as of December 31, 2016, the latest measurement date. The occurrence of any default of these covenants could result in acceleration of any outstanding balances under the ABL Revolving Credit Facility. Further, such acceleration would constitute an event of default under the indentures governing our Senior Notes, and could trigger cross default provisions in other agreements.
- B. *Circumstances that could impair our ability to continue to engage in transactions that have been integral to historical operations or are financially or operationally essential, or that could render that activity commercially impracticable, such as the inability to maintain a specified credit rating, level of earnings, earnings per share, financial ratios, or collateral.* We do not believe that these risk factors are reasonably likely to impair our ability to continue to engage in our planned activities at this time.
- C. *Factors specific to us and our markets that we expect to be given significant weight in the determination of our credit rating or will otherwise affect our ability to raise short-term and long-term financing.* We do not presently believe that events covered by these risk factors applicable to our business could materially affect our credit ratings or could adversely affect our ability to raise short-term or long-term financing.
- D. We have disclosed information related to certain guarantees in Note 19 to our Consolidated Financial Statements.
- E. *Written options on non-financial assets (for example, real estate puts).* We do not have any written options on non-financial assets.

OFF-BALANCE SHEET ARRANGEMENTS

Our disclosures concerning transactions, arrangements and other relationships with unconsolidated entities or other persons that are reasonably likely to materially affect liquidity or the availability of or requirements for capital resources are as follows:

- We have disclosed in Note 19, "Guarantees," to the Consolidated Financial Statements our buyback and residual value guaranty commitments.
- We lease various assets under operating leases. The future estimated payments under these arrangements are disclosed in Note 22, "Leases," to the Consolidated Financial Statements and in the table below.
- We have disclosed our accounts receivable securitization arrangement in Note 12, "Accounts Receivable Securitization," to the Consolidated Financial Statements.

CONTRACTUAL OBLIGATIONS AND COMMERCIAL COMMITMENTS

A summary of our significant contractual obligations as of December 31, 2016 is as follows:

(in millions)	Total Committed	2017	2018	2019	2020	2021	Thereafter
Debt (including capital lease obligations)	\$ 291.7	\$ 12.4	\$ 5.8	\$ 5.7	\$ 3.8	\$ 263.3	\$ 0.7
Interest on long-term debt (including capital lease obligations)	153.4	33.3	33.2	33.1	33.1	20.7	—
Operating leases	97.4	19.9	14.4	12.7	11.7	11.2	27.5
Purchase obligations	108.7	107.9	0.8	—	—	—	—
Total committed	\$ 651.2	\$ 173.5	\$ 54.2	\$ 51.5	\$ 48.6	\$ 295.2	\$ 28.2

- Unrecognized tax benefits totaling \$15.8 million as of December 31, 2016, excluding related interests and penalties, are not included in the table because the timing of their resolution cannot be estimated. See Note 13, “Income Taxes,” to the Consolidated Financial Statements for disclosures surrounding uncertain income tax positions under ASC Topic 740.
- The table of contractual maturities above does not agree to the Company’s total debt as of December 31, 2016 as shown on the Consolidated Balance Sheet and in Note 11, “Debt” due to \$10.2 million of OID.

At December 31, 2016, we had outstanding letters of credit that totaled \$16.4 million. We also had buyback commitments and residual value guarantees with a balance outstanding of \$32.8 million as of December 31, 2016. This amount is not reduced for amounts the Company would recover from the repossession and subsequent resale of collateral.

We maintain defined benefit pension plans for some of our operations. The Company has established the Retirement Plan Committee to manage the operations and administration of all benefit plans and related trusts. As of December 31, 2010, all of the remaining United States defined benefit plans were merged into a single plan: the Manitowoc U.S. Pension Plan. All merged plans had benefit accruals frozen prior to the merger. See Note 21, “Employee benefit plans” for further information on the plans.

In 2016, cash contributions by us to all pension plans were \$2.8 million, and we estimate that our pension plan contributions will be approximately \$6.1 million in 2017.

Financial Risk Management

We are exposed to market risks from changes in interest rates, commodities and changes in foreign currency exchange rates. To reduce these risks, we selectively use derivative financial instruments and other proactive management techniques. We have written policies and procedures that place financial instruments under the direction of corporate finance and restrict all derivative transactions to those intended for hedging purposes. The use of financial instruments for trading purposes or speculation is strictly prohibited.

For a more detailed discussion of our accounting policies and the financial instruments that we use, please refer to Note 2, “Summary of Significant Accounting Policies,” and Note 11, “Debt,” to the Consolidated Financial Statements.

Interest Rate Risk

We are exposed to fluctuating interest rates for our debt. We have established programs to mitigate exposure to these fluctuations. At any time, the Company could be party to various interest rate swaps in connection with its fixed or floating rate debt.

As of December 31, 2016, the Company had no outstanding interest rate swaps of any kind.

As of December 31, 2015, the Company had \$175.0 million notional amount of float-to-fixed interest rate swaps outstanding related to Term Loan A under the Prior Senior Credit Facility that were designated as cash flow hedges. As a result, \$175.0 million of Term Loan A was hedged at an interest rate of 1.635%, plus the applicable spread based on the Consolidated Total Leverage Ratio of the Company as defined under the Prior Senior Credit Facility. As of December 31, 2015, the Company had no fixed-to-float interest rate swaps outstanding related to the Senior Notes due 2020 and 2022.

As of December 31, 2014, the Company had \$75.0 million and \$125.0 million notional amount of fixed-to-float interest rate swaps outstanding related to the Senior Notes due 2020 and 2022, respectively, which were designated as fair value hedges.

A 10% increase or decrease in the average cost of the Company's variable rate debt would result in an immaterial change in interest expense for the year ended December 31, 2016 .

Commodity Prices

We are exposed to fluctuating market prices for commodities, including steel, copper, aluminum, and petroleum-based products. Our business is subject to the effect of changing raw material costs caused by movements in underlying commodity prices. We have established programs to manage the negotiations of commodity prices. In addition to the regular negotiations of material prices with certain vendors, we routinely enter into certain commodity hedges that fix the price of certain of our key commodities utilized in the production of our product offerings. Commodities that are hedged include certain steel inputs and natural gas. At December 31, 2016 , there were \$0.2 million in unrealized gains on commodity hedging positions deferred in accumulated other comprehensive income and realized as a component of cost of sales over the next 12 months.

Currency Risk

We have manufacturing, sales and distribution facilities around the world and thus make investments and enter into transactions denominated in various foreign currencies. International sales, including those sales that originated outside of the United States, were approximately 60% of our total sales for 2016 , with the largest percentage (32%) being sales into various European countries.

Regarding transactional foreign exchange risk, we enter into limited forward exchange contracts to 1) reduce the impact of changes in foreign currency rates between a budgeted rate and the rate realized at the time we recognize a particular purchase or sale transaction and 2) reduce the earnings and cash flow impact on nonfunctional currency denominated receivables and payables. Gains and losses resulting from hedging instruments either impact our Consolidated Statements of Operations in the period of the underlying purchase or sale transaction, or offset the foreign exchange gains and losses on the underlying receivables and payables being hedged. The maturities of these forward exchange contracts coincide with either the underlying transaction date or the settlement date of the related cash inflow or outflow. The hedges of anticipated transactions are designated as cash flow hedges under the guidance of Accounting Standards Codification ("ASC") Topic 815-10, "Derivatives and Hedging." At December 31, 2016 , we had outstanding forward exchange contracts hedging anticipated transactions and future settlements of outstanding accounts receivable and accounts payable with a market value of \$0.8 million (net of tax) of unrealized losses . A 10% appreciation or depreciation of the underlying functional currency at December 31, 2016 for non-designated hedges of foreign exchange contracts would not have a significant impact on our Consolidated Statements of Operations as any gains or losses under the foreign exchange contracts hedging accounts receivable or payable balances would be offset by equal gains or losses on the underlying receivables or payables. A 10% appreciation or depreciation of the underlying functional currency at December 31, 2016 for foreign exchange contracts designated as cash flow hedges could have an impact of up to \$1.8 million on the date of settlement.

Amounts invested in non-U.S. based subsidiaries are translated into U.S. dollars at the exchange rate in effect at year-end. Results of operations are translated into U.S. dollars at an average exchange rate for the period. The resulting translation adjustments are recorded in stockholders' equity as cumulative translation adjustments. The translation adjustment recorded in accumulated other comprehensive loss at December 31, 2016 was a loss of \$110.8 million .

Environmental, Health, Safety, and Other Matters

Please refer to Part II, Item 8, Note 18, "Contingencies and Significant Estimates," where we have disclosed our environmental, health, safety, contingencies and other matters.

Critical Accounting Policies

The Consolidated Financial Statements include the accounts of the Company and all its subsidiaries. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") requires us to make estimates and assumptions in certain circumstances that affect amounts reported in the accompanying Consolidated Financial Statements and related footnotes. In preparing these Consolidated Financial Statements, we have made our best estimates and judgments of certain amounts included in the Consolidated Financial Statements giving due consideration to materiality. However, application of these accounting policies involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates. Although we have listed a number of accounting policies below which we believe to be most critical, we also believe that all of our accounting policies are important to the reader. Therefore, please refer also to the Notes to the Consolidated Financial Statements for more detailed description of these and other accounting policies of the Company.

Revenue Recognition - Revenue is generally recognized and earned when all the following criteria are satisfied with regard to a specific transaction: persuasive evidence of an arrangement exists, the price is fixed and determinable, collectability of cash is reasonably assured, and delivery has occurred or services have been rendered. We periodically enter into transactions with customers that provide for residual value guarantees and buyback commitments. These transactions are recorded as operating leases for all significant residual value guarantees and for all buyback commitments. These initial transactions are recorded as deferred revenue and are amortized to income on a straight-line basis over a period equal to that of the customer's third-party financing agreement. In addition, we lease cranes to customers under operating lease terms. Revenue from operating leases is recognized ratably over the term of the lease, and leased cranes are depreciated over their estimated useful lives.

Allowance for Doubtful Accounts - Accounts receivable are reduced by an allowance for amounts that may become uncollectible in the future. Our estimate for the allowance for doubtful accounts related to trade receivables includes evaluation of specific accounts where we have information that the customer may have an inability to meet its financial obligations together with a general provision for unknown but existing doubtful accounts based on historical experience, which are subject to change if experience improves or deteriorates.

Inventories and Related Reserve for Obsolete and Excess Inventory - Inventories are valued at the lower of cost or market value. Finished goods and work-in-process inventories include material, labor and manufacturing overhead costs. In the fourth quarter of 2016, the Company changed its method of inventory costing for certain inventory in the U.S. to the first-in, first-out (FIFO) method from the last-in, last-out (LIFO) method. The Company believes that the FIFO method is preferable as it results in uniformity across its global operations, aligns with how the Company internally manages inventory, provides better matching of revenues and expenses and improves comparability with the its peers. Inventories are reduced by a reserve for excess and obsolete inventories. The estimated reserve is based upon specific identification of excess or obsolete inventories based on historical usage, estimated future usage, sales requiring the inventory and historical write-off experience and are subject to change if experience improves or deteriorates.

Goodwill, Other Intangible Assets and Other Long-Lived Assets - The Company accounts for goodwill and other intangible assets under the guidance of ASC Topic 350-10, "Intangibles - Goodwill and Other." Under ASC Topic 350-10, goodwill is not amortized; instead, the Company performs an annual impairment review. Historically, the annual impairment review was performed as of June 30. Effective in 2016, the date for the annual impairment review was changed to October 31, or more frequently if events or changes in circumstances indicate that the assets might be impaired. To perform its goodwill impairment review, the Company uses a fair-value method, primarily the income approach, based on the present value of future cash flows. To perform its indefinite lived intangible assets impairment test, the Company uses a fair-value method, based on a relief of royalty valuation approach. Management's judgments and assumptions about the amounts of those cash flows and the discount rates are inputs to these analyses. The estimated fair value is then compared with the carrying amount of the reporting unit or indefinite lived intangible asset. Goodwill and other intangible assets are then subject to risk of write-down to the extent that the carrying amount exceeds the estimated fair value.

As of June 30, 2016, the Company performed its annual goodwill and indefinite-lived assets impairment test, and based on those results, no impairment was indicated. Subsequent to June 30, 2016, the Company changed the date of its annual impairment test to October 31 in order to align more closely to its internal forecasting cycle, and based on the results of that test, no impairment was indicated. However, the decline in oil prices and resulting slowdown in upstream oil & gas activity, as well as uncertainty in global macroeconomic factors related to infrastructure and construction, has caused the Company's customers to defer or reduce capital spending. Similar to other cranes manufacturers, we no longer expect near-term growth in the markets that was previously anticipated and within the analyses performed in 2016 have revised our financial projections to reflect current market conditions, including lower sales. Additionally, the valuation of goodwill is particularly sensitive to management's assumptions of margin improvement, and an unfavorable change in those assumptions could put goodwill at risk for impairment in future periods.

As of the October 31, 2016 valuation, the Company's valuation of its trademarks and tradenames related to its Grove and Potain India brands are particularly at risk, with cushion between the calculated fair value and the book value of the intangible assets of approximately 25% and approximately 10%, respectively. The impact of a 100 basis point increase in the discount rate results in a decrease to the estimated fair value of each asset by approximately 14%, while a reduction in the terminal year sales growth rate assumption by 100 basis points would decrease the estimated fair value by approximately 11%. These trademarks and tradenames are potentially at risk for impairments in future periods if there are further significant unfavorable developments in their markets.

Other intangible assets with definite lives continue to be amortized over their estimated useful lives. Definite lived intangible assets are also subject to impairment testing whenever events or circumstances indicate that the carrying value of the assets may not be recoverable. A considerable amount of management judgment and assumptions are required in performing the impairment tests, principally in determining the fair value of the assets. While the Company believes its judgments and

assumptions were reasonable, different assumptions could change the estimated fair values and, therefore, impairment charges could be required.

The Company also reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the asset's carrying amount may not be recoverable. The Company conducts its long-lived asset impairment analyses in accordance with ASC Topic 360-10-5, "Property, Plant, and Equipment." ASC Topic 360-10-5 requires the Company to group assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities and to evaluate the asset group against the sum of the undiscounted future cash flows. Property, plant and equipment are depreciated over the estimated useful lives of the assets using the straight-line depreciation method for financial reporting and on accelerated methods for income tax purposes.

The Company will continue to monitor market conditions and determine if any additional interim reviews of goodwill, other intangibles or long-lived assets are warranted. Deterioration in the market or actual results as compared with the Company's projections may ultimately result in a future impairment. In the event the Company determines that assets are impaired in the future, the Company would need to recognize a non-cash impairment charge, which could have a material adverse effect on the Company's Consolidated Balance Sheet and Results of Operations.

Employee Benefit Plans - We provide a range of benefits to our employees and retired employees, including pensions and postretirement health care coverage. Plan assets and obligations are recorded annually based on the Company's measurement date utilizing various actuarial assumptions such as discount rates, expected return on plan assets, compensation increases, retirement and mortality rates and health care cost trend rates as of that date. The approach we use to determine the annual assumptions are as follows:

- *Discount Rate* - Our discount rate assumptions are based on the interest rate of noncallable high-quality corporate bonds, with appropriate consideration of our pension plans' participants' demographics and benefit payment terms. Our discount rate is provided by an independent third party calculated based on an appropriate mix of high quality bonds.
- *Expected Return on Plan Assets* - Our expected return on plan assets assumptions are based on our expectation of the long-term average rate of return on assets in the pension funds, which is reflective of the current and projected asset mix of the funds and considers the historical returns earned on the funds.
- *Compensation increase* - Our compensation increase assumptions reflect our long-term actual experience, the near-term outlook and assumed inflation.
- *Retirement and Mortality Rates* - Our retirement and mortality rate assumptions are based primarily on actual plan experience and mortality tables.
- *Health Care Cost Trend Rates* - Our health care cost trend rate assumptions are developed based on historical cost data, near-term outlook and an assessment of likely long-term trends.

Measurements of net periodic benefit cost are based on the assumptions used for the previous year-end measurements of assets and obligations. We review our actuarial assumptions on an annual basis and make modifications to the assumptions when appropriate. As required by U.S. GAAP, the effects of the modifications are recorded currently or amortized over future periods. We have developed the assumptions with the assistance of our independent actuaries and other relevant sources, and we believe that the assumptions used are reasonable; however, changes in these assumptions could impact the Company's financial position, results of operations or cash flows. Refer to Note 21, "Employee Benefit Plans," for a summary of the impact of a 0.50% change in the discount rate and rate of return on plan assets and a 1% change on health care trend rates would have on our financial statements.

Product Liability - We are subject in the normal course of business to product liability lawsuits. To the extent permitted under applicable laws, our exposure to losses from these lawsuits is mitigated by insurance with self-insurance retention limits. We record product liability reserves for our self-insured portion of any pending or threatened product liability actions. Our reserve is based upon two estimates. First, we track the population of all outstanding pending and threatened product liability cases to determine an appropriate case reserve for each based upon our best judgment and the advice of legal counsel. These estimates are continually evaluated and adjusted based upon changes to the facts and circumstances surrounding the case. Second, we determine the amount of additional reserve required to cover incurred but not reported product liability issues and to account for possible adverse development of the established case reserves (collectively referred to as IBNR). We have established a position within the actuarially determined range, which we believe is the best estimate of the IBNR liability.

Income Taxes - We account for income taxes under the guidance of ASC Topic 740-10, "Income Taxes." Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. We record a valuation allowance that represents a reserve on deferred tax assets for which utilization is not more likely than not. Management judgment is required in determining our provision for income taxes, deferred tax assets and liabilities, and the valuation allowance recorded against our net deferred tax assets. We do not currently provide for additional United States and foreign income taxes which would become payable upon repatriation of undistributed earnings of foreign subsidiaries.

We measure and record income tax contingency accruals under the guidance of ASC Topic 740-10. We recognize liabilities for uncertain income tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step requires us to estimate and measure the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement. It is inherently difficult and subjective to estimate such amounts, as we must determine the probability of various possible outcomes. We reevaluate these uncertain tax positions on a quarterly basis or when new information becomes available to management. These reevaluations are based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, successfully settled issues under audit, expirations due to statutes, and new audit activity. Such a change in recognition or measurement could result in the recognition of a tax benefit or an increase to the tax accrual.

Stock-Based Compensation - The computation of the expense associated with stock-based compensation requires the use of certain valuation models and based on projected achievement of underlying performance criteria for performance shares. We currently use a Black-Scholes option pricing model to calculate the fair value of our stock options and Monte Carlo analysis to calculate the total shareholder return portion of performance shares. The Black-Scholes and Monte Carlo models require assumptions regarding the volatility of the Company's stock, the expected life of the stock award and the Company's dividend ratio. We primarily use historical data to determine the assumptions to be used in the Black-Scholes model and have no reason to believe that future data is likely to differ materially from historical data. However, changes in the assumptions to reflect future stock price volatility, future dividend payments and future stock award exercise experience could result in a change in the assumptions used to value awards in the future and may result in a material change to the fair value calculation of stock-based awards.

As of December 31, 2016, the Company has \$2.7 million of unrecognized compensation expense before tax related to stock options which will be recognized over a weighted average period of 2.9 years, \$0.5 million of unrecognized compensation expense before tax related to restricted stock awards which will be recognized over a weighted average period of 1.2 years, and \$5.4 million of unrecognized compensation expense before tax related to restricted stock units which will be recognized over a weighted average period of 2.0 years.

Warranties - In the normal course of business, we provide our customers warranties covering workmanship, and in some cases materials, on products manufactured by us. Such warranties generally provide that products will be free from defects for periods ranging from 12 months to 60 months with certain equipment having longer-term warranties. If a product fails to comply with our warranty, we may be obligated, at our expense, to correct any defect by repairing or replacing such defective product. We provide for an estimate of costs that may be incurred under our warranty at the time product revenue is recognized based on historical warranty experience for the related product or estimates of projected losses due to specific warranty issues on new products. These costs primarily include labor and materials, as necessary, associated with repair or replacement. The primary factors that affect our warranty liability include the number of shipped units and historical and anticipated rates or warranty claims. As these factors are impacted by actual experience and future expectations, we assess the adequacy of our recorded warranty liability and adjust the amounts as necessary.

Restructuring Charges - Restructuring charges for exit and disposal activities are recognized when the liability is incurred. The Company accounts for restructuring charges under the guidance of ASC Topic 420-10, "Exit or Disposal Cost Obligations." The liability for the restructuring charge associated with an exit or disposal activity is measured initially at its fair value.

Recent Accounting Changes and Pronouncements

In January 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2017-04 "Intangibles – Goodwill and Other (Topic 350): Simplifying the Accounting for Goodwill Impairment." This ASU simplifies the accounting for goodwill impairment. The guidance removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. ASU 2017-04 will be effective for annual

or interim goodwill impairment tests in fiscal years beginning after December 15, 2020. Early adoption is permitted for any impairment tests performed after January 1, 2017. The Company is evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In November 2016, the Financial Accounting Standards Board (“FASB”) issued ASU No. 2016-18 “Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force).” The amendments of this ASU address the diversity of presentation of restricted cash by requiring a statement of cash flows to explain the change during the period in the total cash, cash equivalents and amounts generally described as restricted cash or restricted cash equivalents. ASU 2016-18 will be effective for fiscal years beginning after December 15, 2017. The Company is evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16 - “Income Taxes (Topic 740): Intra-Entity Transfer of Assets Other than Inventory,” which requires the recognition of the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. ASU 2016-06 will be effective for fiscal years beginning after December 15, 2017. The Company is currently evaluating the impact of adopting this ASU on its consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15 - “Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments.” This Update addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice and affects all entities required to present a statement of cash flows under Topic 230. This standard will be effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company is evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09 - “Revenue from Contracts with Customers” (Topic 606), which supersedes the revenue recognition requirements in ASC 605, Revenue Recognition. This was further clarified with technical corrections issued within ASU 2015-14, ASU 2016-08, ASU 2016-10, ASU 2016-11, ASU 2016-12, and ASU 2016-20. The new revenue recognition guidance was issued to provide a single, comprehensive revenue recognition model for all contracts with customer. Under the new guidance, an entity will recognize revenue to depict the transfer of promised goods or services to customer at an amount that the entity expects to be entitled to in exchange for those goods or services. A five step model has been introduced for an entity to apply when recognizing revenue. The new guidance also includes enhanced disclosure requirements, and is effective January 1, 2018, with early adoption permitted as of January 1, 2017. Entities have the option to apply the new guidance under a retrospective approach to each prior reporting period presented, or a modified retrospective approach with the cumulative effect of initially applying the new guidance recognized at the date of initial application within the Consolidated Statement of Changes in Stockholder's Equity. Manitowoc plans to adopt the new guidance effective January 1, 2018 utilizing the modified retrospective approach and is in the process of evaluating the financial impact of the adoption on its financial statements. The Company expects to conclude its assessment on the impact of adoption in the first half of 2017.

In March 2016, the FASB issued ASU 2016-09 - “Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting.” This update is part of the Simplification Initiative, and its objective is to identify, evaluate and improve areas of GAAP for which cost and complexity can be reduced while maintaining or improving usefulness of the information provided to users of financial statements. The update involves several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The effective date for this ASU is for annual periods beginning after December 15, 2016 and interim periods within those annual periods. We believe the adoption of this ASU will not have a material impact on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-06 - “Derivatives and Hedging: Contingent Put and Call Options in Debt Instruments.” The amendments clarify the steps required to assess whether a call or put option meets the criteria for bifurcation as an embedded derivative. The ASU is effective for fiscal years and interim periods within those years beginning after December 15, 2016. We believe the adoption of this ASU will not have a material impact on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02 - “Leases”, which is intended to improve financial reporting on leasing transactions. This standard requires a lessee to record on the balance sheet the assets and liabilities for the rights and obligations created by lease terms of more than 12 months. This standard will be effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company is evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In January 2016, the FASB issued ASU 2016-01 - “Financial Instruments-Overall: Recognition and Measurement of Financial Assets and Financial Liabilities.” ASU 2016-01 amends various aspects of the recognition, measurement, presentation, and disclosure for financial instruments. Most significantly, ASU 2016-01 requires equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of an investee) to be measured at fair value with changes in fair value recognized in net income (loss). ASU 2016-01 is effective for annual reporting periods, and interim

periods within those years beginning after December 15, 2017. The Company is evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In August 2015, the FASB issued ASU No. 2015-15 - "Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements." This update clarifies the guidance related to accounting for debt issuance costs related to line-of-credit arrangements. In April 2015, the FASB issued ASU 2015-03, which requires entities to present debt issuance costs related to a recognized debt liability as a direct deduction from the carrying amount of that debt liability; see further discussion of ASU 2015-03 below. The guidance in ASU 2015-03 did not address presentation or subsequent measurement of debt issuance costs related to line-of-credit arrangements. Given the absence of authoritative guidance within ASU 2015-03 for debt issuance costs related to line-of-credit arrangements, the SEC staff would not object to an entity deferring and presenting debt issuance costs as an asset and subsequently amortizing the deferred debt issuance costs ratably over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. The amendments in this ASU are effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. The guidance was applied on a retrospective basis. The Company adopted this guidance as required beginning January 1, 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11 - "Inventory (Topic 330): Simplifying the Measurement of Inventory." This update changes the guidance on accounting for inventory accounted for on a first-in first-out (FIFO) basis. Under the revised standard, an entity should measure FIFO inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured on a last-in, first-out (LIFO) basis. The amendments in this ASU are effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2016. We believe the adoption of this ASU will not have a material impact on our consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-05 - "Customer's Accounting for Fees Paid in a Cloud Computing Arrangement." This update provides guidance on accounting for a software license in a cloud computing arrangement. If a cloud computing arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software license, the customer should account for the arrangement as a service contract. Further, all software licenses are within the scope of Accounting Standards Codification Subtopic 350-40 and will be accounted for consistent with other licenses of intangible assets. The amendments in this ASU are effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. The Company adopted this guidance as required beginning January 1, 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-03 - "Simplifying the Presentation of Debt Issuance Costs." To simplify the presentation of debt issuance costs, this update requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts, rather than as a deferred asset. The recognition and measurement guidance for debt issuance costs are not affected by the amendments in this update. The amendments in this ASU effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. The guidance is applied on a retrospective basis. The Company adopted this guidance as required beginning January 1, 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In February 2015, the FASB issued ASU No. 2015-02 - "Consolidation (Topic 820)—Amendments to the Consolidation Analysis." This update amends the current consolidation guidance for both the variable interest entity (VIE) and voting interest entity (VOE) consolidation models. The amendments in this ASU are effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. The Company adopted this guidance as required beginning January 1, 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In January 2015, the FASB issued ASU No. 2015-01 - "Income Statement—Extraordinary and Unusual Items." This update eliminates from GAAP the concept of extraordinary items. ASU 2015-01 is effective for the first interim period within fiscal years beginning after December 15, 2015. A reporting entity may apply the amendments prospectively or retrospectively to all prior periods presented in the financial statements. The Company adopted this guidance as required beginning January 1, 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15, "Presentation of Financial Statements-Going Concern." This ASU provided guidance on management's responsibility in evaluating whether there is substantial doubt about a company's ability to continue as a going concern and to provide related footnote disclosures. ASU 2014-15 is effective in the first annual period ending after December 15, 2016, with early adoption permitted. The adoption of this guidance did not have a material impact on our consolidated financial statements.

Cautionary Statements Regarding Forward-Looking Information

All of the statements in this Annual Report on Form 10-K, other than historical facts, are forward-looking statements, including, without limitation, the statements made in the "Management's Discussion and Analysis of Financial Condition and Results of Operations," particularly under the caption "Market Conditions and Outlook." As a general matter, forward-looking statements are those focused upon anticipated events or trends, expectations and beliefs relating to matters that are not historical in nature. The words "could," "should," "feel," "anticipate," "aim," "preliminary," "expect," "believer," "estimate," "intend," "intent," "plan," "will," "foresee," "project," "forecast," or the negative thereof or variations thereon, and similar expressions identify forward-looking statements.

The Private Securities Litigation Reform Act of 1995 provides a "safe harbor" for these forward-looking statements. In order to comply with the terms of the safe harbor, The Manitowoc Company, Inc. (the "Company" or "Manitowoc") notes that forward-looking statements are subject to known and unknown risks, uncertainties and other factors relating to the Company's

operations and business environment, all of which are difficult to predict and many of which are beyond the control of the Company. These known and unknown risks, uncertainties and other factors could cause actual results to differ materially from those matters expressed in, anticipated by or implied by such forward-looking statements. These risks, uncertainties and other factors include, but are not limited to:

- unanticipated changes in revenues, margins, costs, and capital expenditures;
- the ability to significantly improve profitability;
- potential delays or failures to implement specific initiatives within the restructuring program;
- issues relating to the ability to timely and effectively execute on manufacturing strategies, including issues relating to plant closings, new plant start-ups, and/or consolidations of existing facilities and operations, and its ability to achieve the expected benefits from such actions;
- the ability to direct resources to those areas that will deliver the highest returns;
- uncertainties associated with new product introductions, the successful development and market acceptance of new and innovative products that drive growth;
- the ability to focus on customers, new technologies, and innovation;
- the ability to focus and capitalize on product quality and reliability;
- the ability to increase operational efficiencies across Manitowoc's businesses and to capitalize on those efficiencies;
- the ability to capitalize on key strategic opportunities and the ability to implement Manitowoc's long-term initiatives;
- the ability to generate cash and manage working capital consistent with Manitowoc's stated goals;
- the ability to convert orders and order activity into sales and the timing of those sales;
- pressure of financing leverage;
- foreign currency fluctuation and its impact on reported results and hedges in place with Manitowoc;
- changes in raw material and commodity prices;
- unexpected issues associated with the quality of materials, components and products sourced from third parties and the ability to successfully resolve those issues;
- unexpected issues associated with the availability and viability of suppliers;
- the risks associated with growth;
- geographic factors and political and economic conditions and risks;
- actions of competitors;
- changes in economic or industry conditions generally or in the markets served by Manitowoc;
- unanticipated changes in customer demand, including changes in global demand for high-capacity lifting equipment, changes in demand for lifting equipment in emerging economies, and changes in demand for used lifting equipment;
- global expansion of customers;
- the replacement cycle of technologically obsolete cranes;
- the ability of Manitowoc's customers to receive financing;
- efficiencies and capacity utilization of facilities;
- issues related to workforce reductions and potential subsequent rehiring;
- work stoppages, labor negotiations, labor rates, and temporary labor costs;
- government approval and funding of projects and the effect of government-related issues or developments;
- the ability to complete and appropriately integrate restructurings, consolidations, acquisitions, divestitures, strategic alliances, joint ventures, and other strategic alternatives;
- realization of anticipated earnings enhancements, cost savings, strategic options and other synergies, and the anticipated timing to realize those savings, synergies, and options;
- impairment of goodwill and/or intangible assets;
- unanticipated issues affecting the effective tax rate for the year;
- unanticipated changes in the capital and financial markets;
- risks related to actions of activist shareholders;
- changes in laws throughout the world;
- natural disasters disrupting commerce in one or more regions of the world;
- risks associated with data security and technological systems and protections;
- acts of terrorism; and
- risks and other factors cited in Manitowoc's filings with the United States Securities and Exchange Commission.

These statements reflect the current views and assumptions of management with respect to future events. The Company does not undertake, and hereby disclaims, any duty to update these forward-looking statements, even though its situation and circumstances may change in the future. Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date of this report. The inclusion of any statement in this report does not constitute an admission by the Company or any other person that the events or circumstances described in such statement are material.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

See Liquidity and Capital Resources, and Risk Management in Management's Discussion and Analysis of Financial Condition and Results of Operations for a description of the quantitative and qualitative disclosure about market risk.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to Consolidated Financial Statements and Financial Statement Schedule:

Financial Statements:

[Report of Independent Registered Public Accounting Firm](#)

[Consolidated Statements of Operations for the years ended December 31, 2016, 2015 and 2014](#)

[Consolidated Statements of Comprehensive Income \(Loss\) for the years ended December 31, 2016, 2015 and 2014](#)

[Consolidated Balance Sheets for the years ended December 31, 2016 and 2015](#)

[Consolidated Statements of Cash Flows for the years ended December 31, 2016, 2015 and 2014](#)

[Consolidated Statements of Equity for the years ended December 31, 2016, 2015 and 2014](#)

[Notes to Consolidated Financial Statements](#)

All other schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of The Manitowoc Company, Inc.:

In our opinion, the accompanying consolidated balance sheets and the related statements of operations, comprehensive income (loss), cash flows, and of equity present fairly in all material respects, the financial position of The Manitowoc Company, Inc. and its subsidiaries 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 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 2 to the consolidated financial statements, the Company changed its inventory costing method for certain inventories 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.

/s/ PricewaterhouseCoopers LLP
Milwaukee, Wisconsin
February 24, 2017

The Manitowoc Company, Inc.
Consolidated Statements of Operations
For the years ended December 31, 2016, 2015 and 2014

Millions of dollars, except per share data	2016	2015	2014
Net sales	\$ 1,613.1	\$ 1,865.7	\$ 2,305.2
Cost of sales	1,359.8	1,533.5	1,838.0
Gross profit	253.3	332.2	467.2
Operating costs and expenses:			
Engineering, selling and administrative expenses	280.7	316.9	350.2
Asset impairment expense	96.9	15.3	—
Amortization of intangible assets	3.0	3.0	3.3
Restructuring expense	23.4	9.4	6.6
Other expense	2.6	—	—
Total operating costs and expenses	406.6	344.6	360.1
Operating (loss) income	(153.3)	(12.4)	107.1
Other (expense) income:			
Interest expense	(39.6)	(95.6)	(92.8)
Amortization of deferred financing fees	(2.2)	(4.2)	(4.4)
Loss on debt extinguishment	(76.3)	(0.2)	(25.5)
Other income (expense) — net	3.3	1.4	(4.8)
Total other expense	(114.8)	(98.6)	(127.5)
Loss from continuing operations before taxes	(268.1)	(111.0)	(20.4)
Provision (benefit) for taxes on income	100.5	(41.1)	(17.8)
Loss from continuing operations	(368.6)	(69.9)	(2.6)
Discontinued operations:			
(Loss) income from discontinued operations, net of income taxes of \$0.6, \$35.9 and \$26.5, respectively	(7.2)	135.4	161.4
Loss on sale of discontinued operations, net of income taxes of \$0.0, \$0.0, and \$(0.6), respectively	—	—	(11.0)
Net (loss) income	(375.8)	65.5	147.8
Less: Net income attributable to noncontrolling interest, net of tax	—	—	3.9
Net (loss) income attributable to Manitowoc common shareholders	\$ (375.8)	\$ 65.5	\$ 143.9
Amounts attributable to the Manitowoc common shareholders:			
Loss from continuing operations	\$ (368.6)	\$ (69.9)	\$ (6.9)
(Loss) income from discontinued operations, net of income taxes	(7.2)	135.4	161.8
Loss on sale of discontinued operations, net of income taxes	—	—	(11.0)
Net (loss) income attributable to Manitowoc common shareholders	\$ (375.8)	\$ 65.5	\$ 143.9
Per Share Data			
Basic (loss) income per common share:			
Loss from continuing operations attributable to Manitowoc common shareholders	\$ (2.68)	\$ (0.51)	\$ (0.05)
(Loss) income from discontinued operations attributable to Manitowoc common shareholders	(0.05)	1.00	1.20
Loss on sale of discontinued operations, net of income taxes	—	—	(0.08)
Basic (loss) income per share attributable to Manitowoc common shareholders	\$ (2.73)	\$ 0.48	\$ 1.07
Diluted (loss) income per common share:			
Loss from continuing operations attributable to Manitowoc common shareholders	\$ (2.68)	\$ (0.51)	\$ (0.05)
(Loss) income from discontinued operations attributable to Manitowoc common shareholders	(0.05)	1.00	1.20
Loss on sale of discontinued operations, net of income taxes	—	—	(0.08)
Diluted (loss) income per share attributable to Manitowoc common shareholders	\$ (2.73)	\$ 0.48	\$ 1.07

The accompanying notes are an integral part of these financial statements.

The Manitowoc Company, Inc.

Consolidated Statements of Comprehensive Income (Loss)

For the years ended December 31, 2016, 2015 and 2014

Millions of dollars	2016	2015	2014
Net (loss) income	\$ (375.8)	\$ 65.5	\$ 147.8
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	(20.4)	(92.2)	(84.0)
Unrealized income (loss) on derivatives, net of income taxes of \$0.9, \$1.0 and \$(3.8), respectively	1.4	2.5	(7.3)
Employee pension and postretirement benefits, net of income taxes of \$(0.2), \$4.9 and \$(13.3), respectively	(4.1)	12.4	(32.3)
Total other comprehensive loss, net of tax	(23.1)	(77.3)	(123.6)
Comprehensive (loss) income	(398.9)	(11.8)	24.2
Comprehensive income attributable to noncontrolling interest	—	—	3.9
Comprehensive (loss) income attributable to Manitowoc common shareholders	\$ (398.9)	\$ (11.8)	\$ 20.3

The accompanying notes are an integral part of these financial statements.

The Manitowoc Company, Inc.
Consolidated Balance Sheets
As of December 31, 2016 and 2015

Millions of dollars, except shares data	2016	2015
Assets		
Current Assets:		
Cash and cash equivalents	\$ 69.9	\$ 31.5
Accounts receivable, less allowances of \$11.1 and \$12.8, respectively	134.4	155.7
Inventories — net	429.0	489.2
Notes receivable — net	62.4	65.1
Other current assets	54.0	45.9
Current assets of discontinued operations	—	254.2
Total current assets	749.7	1,041.6
Property, plant and equipment — net	308.8	410.7
Goodwill	299.6	306.5
Other intangible assets — net	114.1	119.3
Other non-current assets	45.6	177.4
Long-term assets held for sale	—	5.5
Long-term assets of discontinued operations	—	1,501.5
Total assets	\$ 1,517.8	\$ 3,562.5
Liabilities and Equity		
Current Liabilities:		
Accounts payable and accrued expenses	\$ 321.2	\$ 436.3
Short-term borrowings	12.4	67.2
Product warranties	36.5	35.9
Customer advances	21.0	10.3
Product liabilities	21.7	21.9
Current liabilities of discontinued operations	—	312.0
Total current liabilities	412.8	883.6
Non-Current Liabilities:		
Long-term debt	269.1	1,330.4
Deferred income taxes	36.6	25.6
Pension obligations	86.4	99.4
Postretirement health and other benefit obligations	38.0	44.4
Long-term deferred revenue	20.3	29.7
Other non-current liabilities	64.1	87.3
Long-term liabilities of discontinued operations	—	219.8
Total non-current liabilities	514.5	1,836.6
Commitments and contingencies (Note 18)		
Total Equity:		
Preferred stock (authorized 3,500,000 shares of \$.01 par value; none outstanding)	—	—
Common stock (authorized 300,000,000 shares of \$.01 par value; issued 163,175,928 shares; 139,841,214 and 136,617,161 shares outstanding, respectively)	1.4	1.4
Additional paid-in capital	567.6	558.0
Accumulated other comprehensive loss	(162.9)	(207.8)
Retained earnings	247.3	562.3
Treasury stock, at cost (23,334,714 and 26,558,767 shares, respectively)	(62.9)	(71.6)
Total Manitowoc stockholders' equity	590.5	842.3
Total liabilities and equity	\$ 1,517.8	\$ 3,562.5

The accompanying notes are an integral part of these financial statements.

The Manitowoc Company, Inc.

Consolidated Statements of Cash Flows

For the years ended December 31, 2016, 2015 and 2014

Millions of dollars	2016	2015	2014
Cash Flows From Operations			
Net (loss) income	\$ (375.8)	\$ 65.5	\$ 147.8
Adjustments to reconcile net (loss) income to cash (used for) provided by operating activities of continuing operations:			
Asset impairment expense	96.9	15.3	—
Loss (income) from discontinued operations, net of income taxes	7.2	(135.4)	(161.4)
Depreciation expense	45.6	50.6	47.2
Amortization of intangible assets	3.0	3.0	3.3
Amortization of deferred financing fees	2.2	4.2	4.4
Deferred income tax (benefit) - net	101.4	(4.4)	11.5
Noncash loss on early extinguishment of debt	15.4	0.2	6.3
Loss (gain) on sale of property, plant and equipment	1.1	(0.3)	(6.8)
Loss on sale of discontinued operations	—	—	11.0
Stock-based compensation expense and other	(0.7)	7.5	(0.2)
Changes in operating assets and liabilities, excluding the effects of business divestitures:			
Accounts receivable	18.4	(10.7)	11.7
Inventories	52.7	(7.2)	32.6
Notes receivable	32.2	9.9	(21.8)
Other assets	(6.9)	(18.9)	(27.1)
Accounts payable	(105.8)	(12.4)	(29.8)
Accrued expenses and other liabilities	(9.3)	7.6	(145.4)
Net cash used for operating activities of continuing operations	(122.4)	(25.5)	(116.7)
Net cash (used for) provided by operating activities of discontinued operations	(49.9)	126.3	197.7
Net cash (used for) provided by operating activities	(172.3)	100.8	81.0
Cash Flows From Investing			
Capital expenditures	(45.9)	(54.9)	(59.5)
Proceeds from sale of property, plant and equipment	8.4	7.3	12.8
Other	(1.6)	2.6	5.7
Net cash used for investing activities of continuing operations	(39.1)	(45.0)	(41.0)
Net cash (used for) provided by investing activities of discontinued operations	(2.4)	59.1	(25.3)
Net cash (used for) provided by investing activities	(41.5)	14.1	(66.3)
Cash Flows From Financing			
Payments on long-term debt	(1,389.0)	(105.4)	(635.3)
Proceeds from long-term debt	272.1	5.1	637.2
Payments on notes financing - net	(8.4)	(9.4)	(0.3)
Debt issuance costs	(8.9)	—	(5.2)
Dividends paid	—	(10.9)	(10.8)
Exercises of stock options including windfall tax benefits	9.4	7.9	25.9
Dividend from spun-off subsidiary	1,361.7	—	—
Cash transferred to spun-off subsidiary	(17.7)	—	—
Net cash provided by (used for) financing activities of continuing operations	219.2	(112.7)	11.5
Net cash provided by (used for) financing activities of discontinued operations	0.2	(0.2)	(7.5)
Net cash provided by (used for) financing activities	219.4	(112.9)	4.0
Effect of exchange rate changes on cash	0.9	(6.6)	(5.6)
Net increase (decrease) in cash and cash equivalents	6.5	(4.6)	13.1
Balance at beginning of year, including cash of discontinued operations of \$31.9, \$16.5 and \$9.6, respectively	63.4	68.0	54.9
Balance at end of year, including cash of discontinued operations of \$0.0, \$31.9, and \$16.5, respectively	\$ 69.9	\$ 63.4	\$ 68.0
Supplemental Cash Flow Information			
Interest paid	\$ 49.6	\$ 98.8	\$ 120.4
Income taxes paid	8.9	7.7	73.8

The accompanying notes are an integral part of these financial statements.

The Manitowoc Company, Inc.
Consolidated Statements of Equity
For the years ended December 31, 2016, 2015 and 2014

Millions of dollars, except shares data	2016	2015	2014
Common Stock - Shares Outstanding			
Balance at beginning of year	136,617,161	135,543,869	133,717,057
Stock options exercised	2,750,477	464,616	1,726,024
Restricted stock, net	(36,446)	361,985	(14,390)
Performance shares issued	510,022	246,691	115,178
Balance at end of year	139,841,214	136,617,161	135,543,869
Common Stock - Par Value			
Balance at beginning of year	\$ 1.4	\$ 1.4	\$ 1.4
Balance at end of year	\$ 1.4	\$ 1.4	\$ 1.4
Additional Paid-in Capital			
Balance at beginning of year	\$ 558.0	\$ 539.7	\$ 506.0
Stock options exercised and issuance of other stock awards	0.3	2.3	13.6
Windfall tax benefit on stock options exercised	—	1.5	7.5
Stock-based compensation	9.3	14.5	12.6
Balance at end of year	\$ 567.6	\$ 558.0	\$ 539.7
Accumulated Other Comprehensive Loss			
Balance at beginning of year	\$ (207.8)	\$ (130.5)	\$ (6.9)
Distribution of Spun-off subsidiary	68.0	—	—
Other comprehensive loss	(23.1)	(77.3)	(123.6)
Balance at end of year	\$ (162.9)	\$ (207.8)	\$ (130.5)
Retained Earnings			
Balance at beginning of year - As reported	\$ 539.5	\$ 486.9	\$ 353.2
Impact of change in accounting principle	22.8	20.8	21.4
Balance at beginning of year - As adjusted	562.3	507.7	374.6
Net (loss) income	(375.8)	65.5	143.9
Distribution of Spun-off subsidiary	60.8	—	—
Cash dividends	—	(10.9)	(10.8)
Balance at end of year	\$ 247.3	\$ 562.3	\$ 507.7
Treasury Stock			
Balance at beginning of year	\$ (71.6)	\$ (73.4)	\$ (78.2)
Stock options exercised and issuance of other stock awards	8.7	1.8	4.8
Balance at end of year	\$ (62.9)	\$ (71.6)	\$ (73.4)
Equity attributable to Manitowoc shareholders	\$ 590.5	\$ 842.3	\$ 844.9
Noncontrolling Interest			
Balance at beginning of year	—	—	6.8
Comprehensive income attributable to noncontrolling interest	—	—	3.9
Noncontrolling interest deconsolidation as result of sale	—	—	(10.7)
Balance at end of year	\$ —	\$ —	\$ —
Total equity	\$ 590.5	\$ 842.3	\$ 844.9

The accompanying notes are an integral part of these financial statements.

Notes to Consolidated Financial Statements

1. Company and Basis of Presentation

The Manitowoc Company, Inc. (“Manitowoc”, “MTW” and the “Company”) was founded in 1902 and has over a 110-year tradition of providing high-quality, customer-focused products and support services to its markets and for the year ended December 31, 2016, the Company had net sales of approximately \$1.6 billion. MTW is one of the world’s leading providers of engineered lifting equipment for the global construction industry. Manitowoc designs, manufactures, markets, and supports one of the most comprehensive product lines of mobile telescopic cranes, tower cranes, lattice-boom crawler cranes, and boom trucks. Its Crane products are principally marketed under the Manitowoc, Grove, Potain and National Crane brand names. The Company serves a wide variety of customers, including dealers, rental companies, contractors, and government entities, across the petrochemical and industrial, commercial, power and utilities, infrastructure, and residential end markets. Additionally, its Manitowoc Crane Care offering leverages MTW's installed base of approximately 140,000 cranes to provide aftermarket parts and services to enable its customers to manage their fleets most effectively and improve their return on investment. Due to the ongoing and predictable maintenance needed by cranes, as well as the high cost of crane downtime, Crane Care provides the Company with a consistent stream of recurring revenue. Manitowoc is a Wisconsin corporation, and its principal executive offices are located at 2400 South 44th Street, Manitowoc, Wisconsin 54220.

During the first quarter of fiscal 2016, the Board of Directors of The Manitowoc Company, Inc. approved the tax-free Spin-Off of the Company’s former foodservice business (“MFS” or “Foodservice”) into an independent, public company (the “Spin-Off”). To effect the Spin-Off, the Board declared a pro rata dividend of MFS common stock to MTW’s stockholders of record as of the close of business on February 22, 2016 (the “Record Date”) and the Company paid the dividend on March 4, 2016. Each MTW stockholder received one share of MFS common stock for every share of MTW common stock held as of the close of business on the Record Date.

In these Consolidated Financial Statements, unless otherwise indicated, references to Manitowoc, MTW and the Company refer to The Manitowoc Company, Inc. and its consolidated subsidiaries after giving effect to the Spin-Off, or, in the case of information as of dates or for periods prior to the Spin-Off, the consolidated entities of the Crane business and certain other assets and liabilities that were historically held at the MTW corporate level but were specifically identifiable and attributable to the Crane business.

As a result of the Spin-Off, the Consolidated Financial Statements and related financial information reflect MFS operations, assets and liabilities, and cash flows as discontinued operations for all periods presented.

During the first quarter of 2014, the Company sold its 50% interest in Manitowoc Dong Yue Heavy Machinery Co., Ltd. (“Manitowoc Dong Yue” or the “joint venture”), which produces mobile and truck-mounted hydraulic cranes in China, to its joint venture partner, Tai’an Taishan Heavy Industry Investment Co., Ltd., for a nominal amount. Consequently, the joint venture has been classified as discontinued operations in the Company’s financial statements.

See Note 3, “Discontinued Operations,” for further details concerning the above transactions being reported as discontinued operations.

Certain prior period amounts have been reclassified to conform to the current period presentation. All dollar amounts, except share and per share amounts, are in millions of dollars throughout the tables included in these notes unless otherwise indicated.

During the first quarter of 2016, in conjunction with the Spin-Off, the Company identified an out-of-period adjustment related to deferred tax assets, which originated prior to 2010, whereby the Company had understated the deferred tax assets by \$6.2 million at each balance sheet date prior to March 31, 2016. In the first quarter of 2016, the Company recorded an adjustment to the deferred tax assets and the income tax provision on continuing operations to record the out-of-period adjustment. Additionally, the Company identified an out-of-period adjustment in MFS’ deferred tax assets, which also originated prior to 2010, whereby the Company had understated the deferred tax assets by \$2.9 million at each balance sheet date prior to March 31, 2016. In the first quarter of 2016, prior to the Spin-Off, the Company recorded an adjustment to the deferred tax assets and the income tax provision on discontinued operations to correct the out-of-period adjustment. The Company does not believe that these adjustments were material to its Consolidated Financial Statements.

During the third quarter of 2016, the Company identified one adjustment to the previously issued financial statements whereby the Company, at each balance sheet date since March 2014, incorrectly classified a note receivable balance from Manitowoc's former joint venture partner Manitowoc Dong Yue as restricted cash. In evaluating whether the Company’s previously issued consolidated financial statements were materially misstated, the Company considered the guidance in Accounting Standards Codification (“ASC”) Topic 250, “Accounting Changes and Error Corrections” and ASC Topic 250-10-S99-1, “Assessing Materiality.” The Company determined that this error was not material to the Company's prior interim and annual period consolidated financial statements and therefore, amending the previously filed reports was not required. However, the

Company determined that for purposes of comparability, the revision for the correction is reflected in the financial information of the applicable prior periods. The impact to the December 31, 2015 balance sheet is a reclassification of \$14.0 million of restricted cash to \$5.4 million in short-term notes receivable and \$8.6 million of long-term notes receivable. The impact to the full year and fourth quarter 2015 cash flow statement is a decrease of \$2.8 million of source of cash from “other” within cash flows from investing, and increase of \$2.8 million of source of cash from “notes receivable” within cash flows from operations. The impact to the 2014 cash flow statement is a decrease of \$17.3 million of source of cash from “other” within cash flows from investing, and increase of \$17.3 million of source of cash from “notes receivable” within cash flows from operations.

Refer to Note 23, “Quarterly Financial Data (Unaudited),” for discussion of errors identified during the year which impacted only the quarterly financial data.

Basis of Presentation The consolidated financial statements include the accounts of The Manitowoc Company, Inc. and its wholly and majority-owned subsidiaries. All significant intercompany balances and transactions have been eliminated. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent 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 these estimates.

2. Summary of Significant Accounting Policies

Cash Equivalents All short-term investments purchased with an original maturity of three months or less are considered cash equivalents.

Allowance for Doubtful Accounts Accounts receivable are reduced by an allowance for amounts that may become uncollectible in the future. Our estimate for the allowance for doubtful accounts related to trade receivables includes evaluation of specific accounts where we have information that the customer may have an inability to meet its financial obligations together with a general provision for unknown but existing doubtful accounts based on historical experience, which are subject to change if experience improves or deteriorates.

Inventories Inventories are valued at the lower of cost or market value. Finished goods and work-in-process inventories include material, labor and manufacturing overhead costs. In the fourth quarter of 2016, the Company changed its method of inventory costing for certain inventory in the U.S. to the first-in, first-out (FIFO) method from the last-in, last-out (LIFO) method. The Company believes that the FIFO method is preferable as it results in uniformity across its global operations, aligns with how the Company internally manages inventory, provides better matching of revenues and expenses and improves comparability with its peers. The Company's other locations determine costs using the FIFO method. The impact of this change in accounting principle has been reflected through retrospective application to the financial statements for each period presented, and is further explained in Note 6, “Inventories”.

Goodwill and Other Intangible Assets The Company accounts for its goodwill and other intangible assets under the guidance of ASC Topic 350-10, “Intangibles — Goodwill and Other.” Under ASC Topic 350-10, goodwill is not amortized, but it is tested for impairment annually during the fourth quarter, or more frequently, as events dictate. See additional discussion of impairment testing under “Impairment of Long-Lived Assets” below. The Company’s other intangible assets with indefinite lives, including trademarks and tradenames and in-place distributor networks, are not amortized but are also tested for impairment annually, or more frequently, as events dictate. The Company’s other intangible assets subject to amortization are tested for impairment whenever events or changes in circumstances indicate that their carrying values may not be recoverable. Other intangible assets are amortized straight-line over the following estimated useful lives:

	Useful lives
Patents	3-20 years
Engineering drawings	3-15 years
Customer relationships	10 years

Property, Plant and Equipment Property, plant and equipment are stated at cost. Expenditures for maintenance, repairs and minor renewals are charged against earnings as incurred. Expenditures for major renewals and improvements that substantially extend the capacity or useful life of an asset are capitalized and are then depreciated. The cost and accumulated depreciation for property, plant and equipment sold, retired or otherwise disposed of are relieved from the accounts, and resulting gains or losses are reflected in earnings. Property, plant and equipment are depreciated over the estimated useful lives of the assets using the straight-line depreciation method for financial reporting and on accelerated methods for income tax purposes.

Property, plant and equipment are depreciated over the following estimated useful lives:

	Years
Building and improvements	2 - 40
Machinery, equipment and tooling	2 - 20
Furniture and fixtures	3 - 20
Computer hardware and software	2 - 10
Rental cranes	5 - 15

Property, plant and equipment also include cranes accounted for as operating leases. Equipment accounted for as operating leases includes equipment leased directly to the customer and equipment for which the Company has assisted in the financing arrangement, whereby it has guaranteed more than insignificant residual value or made a buyback commitment. Equipment that is leased directly to the customer is accounted for as an operating lease with the related assets capitalized and depreciated over their estimated economic life. Equipment involved in a financing arrangement is depreciated over the life of the underlying arrangement so that the net book value at the end of the period equals the buyback amount or the residual value amount. The amount of buyback and rental equipment included in property, plant and equipment amounted to \$57.9 million and \$69.4 million, net of accumulated depreciation, at December 31, 2016 and 2015, respectively.

Impairment of Long-Lived Assets The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the assets' carrying amount may not be recoverable. The Company conducts its long-lived asset impairment analyses in accordance with ASC Topic 360-10-5. ASC Topic 360-10-5 requires the Company to group assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities and to evaluate the asset group against the sum of the undiscounted future cash flows.

For property, plant and equipment and other long-lived assets, other than goodwill and other indefinite lived intangible assets, the Company performs undiscounted operating cash flow analysis to determine impairments. If an impairment is determined to exist, any related impairment loss is calculated based upon comparison of the fair value to the net book value of the assets. Impairment losses on assets held for sale are based on the estimated proceeds to be received, less costs to sell.

Historically, the annual goodwill impairment testing was performed during the second quarter. The Company performed this test during the second quarter with no impairment. Subsequent to the impairment test performed during the second quarter, the Company moved the annual test to the fourth quarter on a prospective basis in order to align more closely to its internal forecasting cycle. Based on the results of that test, no impairment was indicated. The Company tests for impairment of goodwill annually according to a two-step approach. In the first step, the Company estimates the fair values of its reporting units using the present value of future cash flows approach, subject to a comparison for reasonableness to its market capitalization at the date of valuation. If the carrying amount exceeds the fair value, the second step of the goodwill impairment test is performed to measure the amount of the impairment loss, if any. In the second step, the implied fair value of the goodwill is estimated as the fair value of the reporting unit used in the first step less the fair values of all other net tangible and intangible assets of the reporting unit. If the carrying amount of the goodwill exceeds its implied fair market value, an impairment loss is recognized in an amount equal to that excess, not to exceed the carrying amount of the goodwill. In addition, goodwill of a reporting unit is tested for impairment between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying value. For other indefinite lived intangible assets, the impairment test consists of a comparison of the fair value of the intangible assets to their carrying amount. See Note 9, "Goodwill and Other Intangible Assets," for further details on our impairment assessments.

Warranties Estimated warranty costs are recorded in cost of sales at the time of sale of the warranted products based on historical warranty experience for the related product or estimates of projected costs due to specific warranty issues on new products. These estimates are reviewed periodically and are adjusted based on changes in facts, circumstances or actual experience.

Environmental Liabilities The Company accrues for losses associated with environmental remediation obligations when such losses are probable and reasonably estimable. Such accruals are adjusted as information develops or circumstances change. Costs of long-term expenditures for environmental remediation obligations are discounted to their present value when the timing of cash flows are estimable.

Product Liabilities The Company records product liability reserves for its self-insured portion of any pending or threatened product liability actions when losses are probable and reasonably estimable. The reserve is based upon two estimates. First, the Company tracks the population of all outstanding pending and threatened product liability cases to determine an appropriate case reserve for each based upon the Company's best judgment and the advice of legal counsel. These estimates are continually

evaluated and adjusted based upon changes to facts and circumstances surrounding the case. Second, the Company determines the amount of additional reserve required to cover incurred but not reported product liability obligations and to account for possible adverse development of the established case reserves (collectively referred to as IBNR) utilizing actuarially developed estimates.

Foreign Currency Translation The financial statements of the Company's non-U.S. subsidiaries are translated using the current exchange rate for assets and liabilities and the average exchange rate for the year for income and expense items. Resulting translation adjustments are recorded to Accumulated Other Comprehensive Income (AOCI) as a component of Manitowoc stockholders' equity.

Derivative Financial Instruments and Hedging Activities The Company has written policies and procedures that place all financial instruments under the direction of corporate treasury and restrict all derivative transactions to those intended for hedging purposes. The use of financial instruments for trading purposes is strictly prohibited. The Company uses financial instruments to manage the market risk from changes in foreign exchange rates, commodities and interest rates. The Company follows the guidance in accordance with ASC Topic 815-10, "Derivatives and Hedging." The fair values of all derivatives are recorded in the Consolidated Balance Sheets. The change in a derivative's fair value is recorded each period in current earnings or AOCI depending on whether the derivative is designated and qualifies as a cash flow hedge transaction.

During 2016, 2015 and 2014, minimal amounts were recognized in earnings due to ineffectiveness of certain commodity hedges. The amount reported as derivative instrument fair market value adjustment in the AOCI account within the Consolidated Statements of Comprehensive Income (Loss) represents the net gain (loss) on foreign currency exchange contracts, commodity contracts and interest rate contracts designated as cash flow hedges, net of income taxes.

Cash Flow Hedges The Company selectively hedges anticipated transactions that are subject to foreign exchange exposure, commodity price exposure or variable interest rate exposure, primarily using foreign currency exchange contracts, commodity contracts and interest rate contracts, respectively. These instruments are designated as cash flow hedges in accordance with ASC Topic 815-10 and are recorded in the Consolidated Balance Sheets at fair value. The effective portion of the contracts' gains or losses due to changes in fair value are initially recorded as a component of AOCI and are subsequently reclassified into earnings when the hedged transactions, typically sales and costs related to sales and interest expense, occur and affect earnings. These contracts are highly effective in hedging the variability in future cash attributable to changes in currency exchange rates, commodity prices or interest rates.

Fair Value Hedges The Company periodically enters into interest rate swaps designated as a hedge of the fair value of a portion of its fixed rate debt. These hedges effectively result in changing a portion of its fixed rate debt to variable interest rate debt. Both the swaps and the debt are recorded in the Consolidated Balance Sheets at fair value. The change in fair value of the swaps should exactly offset the change in fair value of the hedged debt, with no net impact to earnings. Interest expense of the hedged debt is recorded at the variable rate in earnings. See Note 11, "Debt" for further discussion of fair value hedges.

The Company selectively hedges cash inflows and outflows that are subject to foreign currency exposure from the date of transaction to the related payment date. The hedges for these foreign currency accounts receivable and accounts payable are recorded in the Consolidated Balance Sheets at fair value. Gains or losses due to changes in fair value are recorded as an adjustment to earnings in the Consolidated Statements of Operations.

Stock-Based Compensation The Company recognizes expense for all stock-based compensation with graded vesting on a straight-line basis over the vesting period of the entire award. Stock-based compensation plans are described more fully in Note 16, "Stock-Based Compensation."

Revenue Recognition Revenue is generally recognized and earned when all the following criteria are satisfied with regard to a specific transaction: persuasive evidence of a sales arrangement exists; the price is fixed or determinable; collectability of cash is reasonably assured; and delivery has occurred or services have been rendered. Shipping and handling fees are reflected in net sales, and shipping and handling costs are reflected in cost of sales in the Consolidated Statements of Operations.

The Company enters into transactions with customers that provide for residual value guarantees and buyback commitments on certain transactions. The Company records transactions which it provides significant residual value guarantees and any buyback commitments as operating leases. Net revenues in connection with the initial transactions are recorded as deferred revenue and are amortized to income on a straight-line basis over a period equal to that of the customer's third party financing agreement. See Note 19, "Guarantees."

The Company also leases cranes to customers under operating lease terms. Revenue from operating leases is recognized ratably over the term of the lease, and leased cranes are depreciated over their estimated useful lives.

Research and Development Research and development costs are charged to expense as incurred and amounted to \$44.5 million, \$57.6 million and \$56.4 million for the years ended December 31, 2016, 2015 and 2014, respectively. Research and development costs include salaries, materials, contractor fees and other administrative costs.

Income Taxes The Company utilizes the liability method to recognize deferred tax assets and liabilities for the expected future income tax consequences of events that have been recognized in the Company's financial statements. Under this method, deferred tax assets and liabilities are determined based on the temporary difference between financial statement carrying amounts and the tax basis of assets and liabilities using enacted tax rates in effect in the years in which the temporary differences are expected to reverse. Valuation allowances are provided for deferred tax assets where it is considered more likely than not that the Company will not realize the benefit of such assets. The Company evaluates its uncertain tax positions as new information becomes available. Tax benefits are recognized to the extent a position is more likely than not to be sustained upon examination by the taxing authority.

Earnings Per Share Basic earnings per share is computed by dividing net earnings attributable to Manitowoc by the weighted average number of common shares outstanding during each year or period. Diluted earnings per share is computed similar to basic earnings per share except that the weighted average shares outstanding is increased to include shares of restricted stock, performance shares and the number of additional shares that would have been outstanding if stock options were exercised and the proceeds from such exercise were used to acquire shares of common stock at the average market price during the year or period.

Comprehensive Income (Loss) Comprehensive income (loss) includes, in addition to net earnings, other items that are reported as direct adjustments to Manitowoc stockholders' equity. These items are foreign currency translation adjustments, employee postretirement benefit adjustments and the change in fair value of certain derivative instruments.

Concentration of Credit Risk Credit extended to customers through trade accounts receivable potentially subjects the Company to risk. This risk is limited due to the large number of customers and their dispersion across various industries and many geographical areas. However, a significant amount of the Company's receivables are with distributors and contractors in the construction industry, customers servicing the U.S. steel industry and government agencies. The Company currently does not foresee a significant credit risk associated with these individual groups of receivables but continues to monitor the exposure, if any.

Recent Accounting Changes and Pronouncements

In January 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2017-04 "Intangibles – Goodwill and Other (Topic 350): Simplifying the Accounting for Goodwill Impairment." This ASU simplifies the accounting for goodwill impairment. The guidance removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. ASU 2017-04 will be effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2020. Early adoption is permitted for any impairment tests performed after January 1, 2017. The Company is evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In November 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-18 "Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force)." The amendments of this ASU address the diversity of presentation of restricted cash by requiring a statement of cash flows to explain the change during the period in the total cash, cash equivalents and amounts generally described as restricted cash or restricted cash equivalents. ASU 2016-18 will be effective for fiscal years beginning after December 15, 2017. The Company is evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16 - "Income Taxes (Topic 740): Intra-Entity Transfer of Assets Other than Inventory," which requires the recognition of the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. ASU 2016-06 will be effective for fiscal years beginning after December 15, 2017. The Company is currently evaluating the impact of adopting this ASU on its consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15 - "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments." This Update addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice and affects all entities required to present a statement of cash flows under Topic 230. This standard will be effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company is evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09 - "Revenue from Contracts with Customers" (Topic 606), which supersedes the revenue recognition requirements in ASC 605, Revenue Recognition. This was further clarified with technical corrections

issued within ASU 2015-14, ASU 2016-08, ASU 2016-10, ASU 2016-11, ASU 2016-12, and ASU 2016-20. The new revenue recognition guidance was issued to provide a single, comprehensive revenue recognition model for all contracts with customer. Under the new guidance, an entity will recognize revenue to depict the transfer of promised goods or services to customer at an amount that the entity expects to be entitled to in exchange for those goods or services. A five step model has been introduced for an entity to apply when recognizing revenue. The new guidance also includes enhanced disclosure requirements, and is effective January 1, 2018, with early adoption permitted as of January 1, 2017. Entities have the option to apply the new guidance under a retrospective approach to each prior reporting period presented, or a modified retrospective approach with the cumulative effect of initially applying the new guidance recognized at the date of initial application within the Consolidated Statement of Changes in Stockholder's Equity. Manitowoc plans to adopt the new guidance effective January 1, 2018 utilizing the modified retrospective approach and is in the process of evaluating the financial impact of the adoption on its financial statements. The Company expects to conclude its assessment on the impact of adoption in the first half of 2017.

In March 2016, the FASB issued ASU 2016-09 - "Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting." This update is part of the Simplification Initiative, and its objective is to identify, evaluate and improve areas of GAAP for which cost and complexity can be reduced while maintaining or improving usefulness of the information provided to users of financial statements. The update involves several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The effective date for this ASU is for annual periods beginning after December 15, 2016 and interim periods within those annual periods. We believe the adoption of this ASU will not have a material impact on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-06 - "Derivatives and Hedging: Contingent Put and Call Options in Debt Instruments." The amendments clarify the steps required to assess whether a call or put option meets the criteria for bifurcation as an embedded derivative. The ASU is effective for fiscal years and interim periods within those years beginning after December 15, 2016. We believe the adoption of this ASU will not have a material impact on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02 - "Leases", which is intended to improve financial reporting on leasing transactions. This standard requires a lessee to record on the balance sheet the assets and liabilities for the rights and obligations created by lease terms of more than 12 months. This standard will be effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company is evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In January 2016, the FASB issued ASU 2016-01 - "Financial Instruments-Overall: Recognition and Measurement of Financial Assets and Financial Liabilities." ASU 2016-01 amends various aspects of the recognition, measurement, presentation, and disclosure for financial instruments. Most significantly, ASU 2016-01 requires equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of an investee) to be measured at fair value with changes in fair value recognized in net income (loss). ASU 2016-01 is effective for annual reporting periods, and interim periods within those years beginning after December 15, 2017. The Company is evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In August 2015, the FASB issued ASU No. 2015-15 - "Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements." This update clarifies the guidance related to accounting for debt issuance costs related to line-of-credit arrangements. In April 2015, the FASB issued ASU 2015-03, which requires entities to present debt issuance costs related to a recognized debt liability as a direct deduction from the carrying amount of that debt liability; see further discussion of ASU 2015-03 below. The guidance in ASU 2015-03 did not address presentation or subsequent measurement of debt issuance costs related to line-of-credit arrangements. Given the absence of authoritative guidance within ASU 2015-03 for debt issuance costs related to line-of-credit arrangements, the SEC staff would not object to an entity deferring and presenting debt issuance costs as an asset and subsequently amortizing the deferred debt issuance costs ratably over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. The amendments in this ASU are effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. The guidance was applied on a retrospective basis. The Company adopted this guidance as required beginning January 1, 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11 - "Inventory (Topic 330): Simplifying the Measurement of Inventory." This update changes the guidance on accounting for inventory accounted for on a first-in first-out (FIFO) basis. Under the revised standard, an entity should measure FIFO inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured on a last-in, first-out (LIFO) basis. The amendments in this ASU are effective for fiscal years, and for interim periods within those fiscal years, beginning after

December 15, 2016. We believe the adoption of this ASU will not have a material impact on our consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-05 - “Customer’s Accounting for Fees Paid in a Cloud Computing Arrangement.” This update provides guidance on accounting for a software license in a cloud computing arrangement. If a cloud computing arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software license, the customer should account for the arrangement as a service contract. Further, all software licenses are within the scope of Accounting Standards Codification Subtopic 350-40 and will be accounted for consistent with other licenses of intangible assets. The amendments in this ASU are effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. The Company adopted this guidance as required beginning January 1, 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-03 - “Simplifying the Presentation of Debt Issuance Costs.” To simplify the presentation of debt issuance costs, this update requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts, rather than as a deferred asset. The recognition and measurement guidance for debt issuance costs are not affected by the amendments in this update. The amendments in this ASU effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. The guidance is applied on a retrospective basis. The Company adopted this guidance as required beginning January 1, 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In February 2015, the FASB issued ASU No. 2015-02 - “Consolidation (Topic 820)—Amendments to the Consolidation Analysis.” This update amends the current consolidation guidance for both the variable interest entity (VIE) and voting interest entity (VOE) consolidation models. The amendments in this ASU are effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. The Company adopted this guidance as required beginning January 1, 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In January 2015, the FASB issued ASU No. 2015-01 - “Income Statement—Extraordinary and Unusual Items.” This update eliminates from GAAP the concept of extraordinary items. ASU 2015-01 is effective for the first interim period within fiscal years beginning after December 15, 2015. A reporting entity may apply the amendments prospectively or retrospectively to all prior periods presented in the financial statements. The Company adopted this guidance as required beginning January 1, 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15, “Presentation of Financial Statements-Going Concern.” This ASU provided guidance on management’s responsibility in evaluating whether there is substantial doubt about a company’s ability to continue as a going concern and to provide related footnote disclosures. ASU 2014-15 is effective in the first annual period ending after December 15, 2016, with early adoption permitted. The adoption of this guidance did not have a material impact on our consolidated financial statements.

3. Discontinued Operations

On March 4, 2016, Manitowoc completed the Spin-Off of MFS. The financial results of MFS are presented as income (loss) from discontinued operations, net of income taxes in the Consolidated Statements of Operations. Concurrent with the Spin-Off, the Company received a \$1,361.7 million dividend from MFS. The following table presents the financial results of MFS

through the date of the Spin-Off for the indicated periods and do not include corporate overhead allocations:

Major classes of line items constituting earnings from discontinued operations before income taxes related to MFS

(in millions)	2016	2015	2014
Net sales	\$ 219.6	\$ 1,570.1	\$ 1,581.3
Cost of sales	141.5	1,065.6	1,070.7
Engineering, selling and administrative expenses	48.3	271.3	284.2
Amortization of intangible assets	5.2	31.4	31.8
Asset impairment expense	—	9.0	1.1
Restructuring expense	0.3	4.6	2.5
Separation expense	27.7	39.4	—
Other	—	0.9	0.4
Total operating costs and expenses	223.0	1,422.2	1,390.7
Operating (loss) income	(3.4)	147.9	190.6
Other (expense) income	(2.2)	23.4	(1.7)
(Loss) income from discontinued operations before income taxes	(5.6)	171.3	188.9
Provision for taxes on income	0.6	35.9	26.5
(Loss) income from discontinued operations, net of income taxes (1)	\$ (6.2)	\$ 135.4	\$ 162.4

(1) For the year ended December 31, 2016, 2015 and 2014, the Company recorded net (losses) income of \$(1.0) million, \$0.0 million and \$(1.0) million, respectively, from various other businesses disposed of prior to 2014. This is presented for informational purposes only and does not necessarily reflect what the results of operations would have been had the businesses operated as stand-alone entities.

No assets or liabilities of MFS are reflected on the Company's Consolidated Balance Sheet as of December 31, 2016. The assets and liabilities of MFS have been classified as discontinued operations and are reflected as such on the Company's Consolidated Balance Sheet as of December 31, 2015. These amounts consisted

of the following carrying amounts in each major class at December 31, 2015 :

Carrying amounts of major classes of assets and liabilities included as part of discontinued operations related to MFS

(in millions)	December 31, 2015
Assets	
Cash and cash equivalents	\$ 31.9
Restricted cash	0.6
Accounts receivable - net	63.8
Inventories - net	145.9
Other current assets	12.0
Property, plant and equipment - net	116.3
Goodwill	845.8
Other intangible assets - net	519.5
Other non-current assets	16.2
Long-term assets held for sale	3.7
Total major classes of assets of discontinued operations	<u>\$ 1,755.7</u>
Liabilities	
Accounts payable and accrued expenses	\$ 271.6
Current portion of long-term debt	0.4
Other current liabilities	40.0
Long-term debt	2.3
Deferred income taxes	167.9
Pension obligation	29.3
Postretirement health and other benefit obligations	3.0
Other non-current liabilities	17.3
Total major classes of liabilities of discontinued operations	<u>\$ 531.8</u>

Manitowoc and MFS entered into several agreements in connection with the separation, including a transition services agreement (“TSA”), separation and distribution agreement, tax matters agreement, intellectual property matters agreement and an employee matters agreement.

Pursuant to the TSA, Manitowoc, MFS and their respective subsidiaries are providing various services to each other on an interim, transitional basis. Services being provided by Manitowoc include, among others, finance, information technology and certain other administrative services. The services generally commenced on March 4, 2016, and are expected to terminate within 12 months of that date. Billings by Manitowoc under the TSA are recorded as a reduction of the costs to provide the respective service in the applicable expense category.

During the twelve months ended December 31, 2016 and 2015, the Company recorded \$27.7 million and \$39.4 million, respectively, of separation costs related to the Spin-Off. Separation costs consist primarily of professional and consulting fees, and are included in the results of discontinued operations.

During the first quarter of 2014, the Company sold its 50% interest in Manitowoc Dong Yue, a consolidated entity, which produces mobile and truck-mounted hydraulic cranes in China, to its joint venture partner, Tai’an Taishan Heavy Industry Investment Co., Ltd. Consequently, the joint venture has been classified as discontinued operations in the Company’s financial statements. In connection with the sale, the Company agreed to forgive all loans and accrued interest owed by Manitowoc Dong Yue to the Company and its affiliates and paid an additional \$7.2 million to Manitowoc Dong Yue for a portion of debt the joint venture had outstanding with third parties. After this payment, Manitowoc Dong Yue owed approximately \$17.3 million to the Company. The loan is secured by certain of Manitowoc Dong Yue’s fixed assets, as well as finished goods inventory. Manitowoc Dong Yue is repaying the loan over a four -year period, with the last payment due on December 31, 2017. As of December 31, 2016, the outstanding balance was \$14.2 million.

4. Fair Value of Financial Instruments

The following tables set forth the Company's financial assets and liabilities that were accounted for at fair value on a recurring basis as of December 31, 2016 and 2015 by level within the fair value hierarchy. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

(in millions)	Fair Value as of December 31, 2016			
	Level 1	Level 2	Level 3	Total
Current Assets:				
Foreign currency exchange contracts	\$ —	\$ 0.2	\$ —	\$ 0.2
Commodity contracts	—	0.2	—	0.2
Total current assets at fair value	\$ —	\$ 0.4	\$ —	\$ 0.4
Current Liabilities:				
Foreign currency exchange contracts	\$ —	\$ 1.0	\$ —	\$ 1.0
Total current liabilities at fair value	\$ —	\$ 1.0	\$ —	\$ 1.0

(in millions)	Fair Value as of December 31, 2015			
	Level 1	Level 2	Level 3	Total
Current Assets:				
Foreign currency exchange contracts	\$ —	\$ 0.3	\$ —	\$ 0.3
Total current assets at fair value	\$ —	\$ 0.3	\$ —	\$ 0.3
Current Liabilities:				
Foreign currency exchange contracts	\$ —	\$ 1.1	\$ —	\$ 1.1
Commodity contracts	—	0.7	—	0.7
Interest rate swap contracts: Float-to-fixed	—	1.7	—	1.7
Total current liabilities at fair value	\$ —	\$ 3.5	\$ —	\$ 3.5
Non-current Liabilities:				
Interest rate swap contracts: Float-to-fixed	\$ —	\$ 0.6	\$ —	\$ 0.6
Foreign currency exchange contract	—	0.1	—	0.1
Total non-current liabilities at fair value	\$ —	\$ 0.7	\$ —	\$ 0.7

On March 3, 2016, the Company redeemed the then-outstanding 2020 Notes and 2022 Notes using proceeds from the newly issued 2021 Notes. The fair value of the Company's 2021 Notes was approximately \$282.2 million as of December 31, 2016. The fair value of the Company's 2020 Notes and 2022 Notes was approximately \$623.1 million and \$310.6 million, respectively, as of December 31, 2015. The fair values of the Company's term loans under its Prior Senior Credit Facility, respectively, were as follows as of December 31, 2015: Term Loan A — \$307.7 million and Term Loan B — \$116.7 million. The Prior Senior Credit Facility was terminated on March 3, 2016. See Note 11, "Debt," for a description of the debt instruments and their related carrying values.

ASC Topic 820-10 defines 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. ASC Topic 820-10 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 Company endeavors to utilize the best available information in measuring fair value. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company estimates fair value of its Term Loans and Senior Notes based on quoted market prices of the instruments; because these markets are typically thinly traded, the liabilities are classified as Level 2 within the valuation hierarchy. The carrying values of cash and cash equivalents, accounts receivable, accounts payable, deferred purchase price notes on receivables sold (see Note 12, "Accounts Receivable Securitization") and short-term variable debt, including any amounts outstanding under our revolving credit facility, approximate fair value, without being discounted as of December 31, 2016 and December 31, 2015 due to the short-term nature of these instruments.

As a result of its global operating and financing activities, the Company is exposed to market risks from changes in interest rates, foreign currency exchange rates, and commodity prices, which may adversely affect its operating results and financial position. When deemed appropriate, the Company minimizes these risks through the use of derivative financial instruments. Derivative financial instruments are used to manage risk and are not used for trading or other speculative purposes, and the Company does not use leveraged derivative financial instruments. The foreign currency exchange, interest rate, and commodity contracts are valued through an independent valuation source which uses an industry standard data provider, with resulting valuations periodically validated through third-party or counterparty quotes. As such, these derivative instruments are classified within Level 2.

5. Derivative Financial Instruments

The Company's risk management objective is to ensure that business exposures to risks that have been identified and measured and are capable of being controlled, are minimized using the most effective and efficient methods to eliminate, reduce, or transfer such exposures. Operating decisions consider these associated risks and structure transactions to avoid these risks whenever possible.

Use of derivative instruments is consistent with the overall business and risk management objectives of the Company. Derivative instruments may be used to manage business risk within limits specified by the Company's risk policy and manage exposures that have been identified through the risk identification and measurement process, provided that they clearly qualify as "hedging" activities as defined in the risk policy. Use of derivative instruments is not automatic, nor is it necessarily the only response to managing pertinent business risk. Use is permitted only after the risks that have been identified are determined to exceed defined tolerance levels and are considered to be unavoidable.

The primary risks managed by the Company by using derivative instruments are commodity price risk and foreign currency exchange risk. Interest rate derivative instruments were utilized in prior years to help manage interest rate risk. Swap contracts on various commodities are entered into to help manage the price risk associated with forecasted purchases of materials used in the Company's manufacturing process. The Company also enters into various foreign currency derivative instruments to help manage foreign currency risk associated with the Company's projected purchases and sales and foreign currency denominated receivable and payable balances.

ASC Topic 815-10 requires companies to recognize all derivative instruments as either assets or liabilities at fair value in the statement of financial position. In accordance with ASC Topic 815-10, the Company designates commodity swaps, foreign currency exchange contracts, and float-to-fixed interest rate derivative contracts as cash flow hedges of forecasted purchases of commodities and currencies, and variable rate interest payments. Also in accordance with ASC Topic 815-10, the Company designates fixed-to-float interest rate swaps as fair market value hedges of fixed rate debt, which synthetically swaps the Company's fixed rate debt to floating rate debt.

For derivative instruments that are designated and qualify as cash flow hedges, the effective portion of the gain or loss on the derivative is reported as a component of other comprehensive income and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative instruments representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness, are recognized in current earnings. In the next twelve months, the Company estimates \$0.6 million of unrealized losses, net of tax, related to commodity price and currency rate hedging will be reclassified from other comprehensive income into earnings. Foreign currency and commodity hedging is generally completed prospectively on a rolling basis for twelve and twenty-four months, respectively, depending on the type of risk being hedged.

The Company previously had interest rate hedges related to its senior notes. The risk management objective for the Company's fair market value interest rate hedges was to effectively change the amount of the underlying debt equal to the notional value of the hedges from a fixed to a floating interest rate based on the one-month LIBOR rate. These swaps included an embedded call feature to match the terms of the call schedule embedded in the Senior Notes. Changes in the fair value of the interest rate swaps were expected to offset changes in the fair value of the debt due to changes in the one-month LIBOR rate.

As of December 31, 2016, the Company had the following outstanding commodity swap and currency forward contracts that were entered into as hedges of forecasted transactions:

Designated Hedging Instruments

Commodity	Units Hedged	Unit	Type
Natural Gas	26,807	MMBtu	Cash Flow
Steel	3,190	Short Tons	Cash Flow

Designated Hedging Instruments

Currency	Units Hedged	Type
Australian Dollar	611,143	Cash Flow
European Euro	9,834,120	Cash Flow
South Korean Won	218,408,100	Cash Flow
Singapore Dollar	900,000	Cash Flow
United States Dollar	2,311,697	Cash Flow
Japanese Yen	65,502,800	Cash Flow

The Company has been party to various fixed-to-float interest rate swaps designated as fair market value hedges of its Senior Notes. In the third quarter of 2012, the Company monetized the derivative asset related to its fixed-to-float interest rate swaps related to its 2018 and 2020 Notes and received \$14.8 million in the quarter. The gain was treated as an increase to the debt balances for the 2018 and 2020 Notes and was being amortized against interest expense over the life of the original swap. Subsequently, the Company entered into new interest rate swaps due in 2020 and 2022, designating them as fair market value hedges of the 2020 and 2022 Notes, respectively.

As of December 31, 2014, the Company had \$75.0 million and \$125.0 million notional amount of fixed-to-float interest rate swaps outstanding related to the 2020 and 2022 Notes, respectively, which were designated as fair value hedges.

In April 2015, the Company monetized the derivative liability related to \$75.0 million notional amount of its fixed-to-float interest rate swaps related to the 2020 Notes and \$45.0 million notional amount of its fixed-to-float interest rate swaps related to the 2022 Notes. The loss on the monetization of these swaps of \$0.7 million was treated as a decrease to the debt balances for the 2020 Notes and 2022 Notes, and was amortized against interest expense over the life of the original swaps.

In September 2015, the Company monetized the derivative liability related to the remaining \$80.0 million notional of its fixed-to-float interest rate swaps related to the 2022 Notes. The loss on monetization of these swaps of \$0.5 million was treated as a decrease to the debt balances and 2022 Notes, and was amortized against interest expense over the life of the original swaps.

The Company redeemed the 2020 and 2022 Notes on March 3, 2016. The then outstanding net gain from the monetization of fixed-to-float swaps due 2020 and 2022 was amortized to interest income. See Note 11, "Debt," for more information.

As of December 31, 2016, the Company had no outstanding fixed-to-float interest rate swaps related to the Senior Notes due 2021.

For derivative instruments that are not designated as hedging instruments under ASC Topic 815-10, the gains or losses on the derivatives are recognized in current earnings within other (expense) income, net in the Consolidated Statement of Operations. As of December 31, 2016, the Company had the following outstanding currency forward contracts that were not designated as hedging instruments:

Non Designated Hedging Instruments

Currency	Units Hedged	Recognized Location	Purpose
European Euro	10,502,111	Other (expense) income, net	Accounts payable and receivable settlement
United States Dollar	15,318,000	Other (expense) income, net	Accounts payable and receivable settlement

The fair value of outstanding derivative contracts recorded as assets in the accompanying Consolidated Balance Sheet as of December 31, 2016 was as follows:

(in millions)	ASSET DERIVATIVES	
	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments		
Foreign exchange contracts	Other current assets	\$ 0.1
Commodity contracts	Other current assets	0.2
Total derivatives designated as hedging instruments		\$ 0.3

(in millions)	ASSET DERIVATIVES	
	Balance Sheet Location	Fair Value
Derivatives NOT designated as hedging instruments		
Foreign exchange contracts	Other current assets	\$ 0.1
Total derivatives NOT designated as hedging instruments		\$ 0.1
Total asset derivatives		\$ 0.4

The fair value of outstanding derivative contracts recorded as liabilities in the accompanying Consolidated Balance Sheet as of December 31, 2016 was as follows:

(in millions)	LIABILITY DERIVATIVES	
	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments		
Foreign exchange contracts	Accounts payable and accrued expenses	\$ 0.9
Total derivatives designated as hedging instruments		\$ 0.9

(in millions)	LIABILITY DERIVATIVES	
	Balance Sheet Location	Fair Value
Derivatives NOT designated as hedging instruments		
Foreign exchange contracts	Accounts payable and accrued expenses	\$ 0.1
Total derivatives NOT designated as hedging instruments		\$ 0.1
Total liability derivatives		\$ 1.0

As of December 31, 2015, the Company had the following outstanding commodity and currency forward contracts that were entered into as hedges of forecasted transactions:

Designated Hedging Instruments

Commodity	Units Hedged	Unit	Type
Natural Gas	175,617	MMBtu	Cash Flow
Steel	4,811	Short Tons	Cash Flow

Designated Hedging Instruments

Currency	Units Hedged	Type
South Korean Won	1,533,257,930	Cash Flow
Singapore Dollar	1,800,000	Cash Flow
Japanese Yen	245,915,700	Cash Flow

For derivative instruments that are not designated as hedging instruments under ASC Topic 815-10, the gains or losses on the derivatives are recognized in current earnings within other (expense) income, net. As of December 31, 2015, the Company had the following outstanding currency forward contracts that were not designated as hedging instruments:

Non Designated Hedging Instruments

Currency	Units Hedged	Recognized Location	Purpose
European Euro	20,490,320	Other (expense) income, net	Accounts Payable and Receivable Settlement
United States Dollar	17,321,106	Other (expense) income, net	Accounts Payable and Receivable Settlement
Japanese Yen	70,518,463	Other (expense) income, net	Accounts Payable and Receivable Settlement
Singapore Dollar	500,000	Other (expense) income, net	Accounts Payable and Receivable Settlement
British Pound Sterling	4,840,238	Other (expense) income, net	Accounts Payable and Receivable Settlement

The fair value of outstanding derivative contracts recorded as assets in the accompanying Consolidated Balance Sheet as of December 31, 2015 was as follows:

(in millions)	ASSET DERIVATIVES	
	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments		
Foreign exchange contracts	Other current assets	\$ 0.3
Total derivatives designated as hedging instruments		\$ 0.3

(in millions)	ASSET DERIVATIVES	
	Balance Sheet Location	Fair Value
Derivatives NOT designated as hedging instruments		
Foreign exchange contracts	Other current assets	\$ —
Total derivatives NOT designated as hedging instruments		\$ —

Total asset derivatives		\$ 0.3
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The fair value of outstanding derivative contracts recorded as liabilities in the accompanying Consolidated Balance Sheet as of December 31, 2015 was as follows:

(in millions)	LIABILITY DERIVATIVES	
	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments		
Foreign exchange contracts	Accounts payable and accrued expenses	\$ 0.2
Commodity contracts	Accounts payable and accrued expenses	0.7
Interest rate swap contracts: Float-to-fixed	Accounts payable and accrued expenses	1.7
Foreign exchange contracts	Other non-current liabilities	0.1
Interest rate swap contracts: Float-to-fixed	Other non-current liabilities	0.6
Total derivatives designated as hedging instruments		\$ 3.3

(in millions)	LIABILITY DERIVATIVES	
	Balance Sheet Location	Fair Value
Derivatives NOT designated as hedging instruments		
Foreign exchange contracts	Accounts payable and accrued expenses	\$ 0.9
Total derivatives NOT designated as hedging instruments		\$ 0.9
Total liability derivatives		\$ 4.2

6. Inventories

The components of inventories at December 31, 2016 and December 31, 2015 are summarized as follows:

(in millions)	2016	2015
Raw materials	\$ 109.3	\$ 155.3
Work-in-process	88.4	116.3
Finished goods	270.9	251.7
Total inventories — gross	468.6	523.3
Excess and obsolete inventory reserve	(39.6)	(34.1)
Net inventories	\$ 429.0	\$ 489.2

As described in Note 2, in the fourth quarter of 2016, the Company elected to change its method of accounting for certain inventory in the U.S. from LIFO to FIFO. The Company applied this change in method of inventory costing by retrospectively adjusting the prior period financial statements. As a result of the retrospective adjustment of the change in accounting principle, certain amounts in the Company's consolidated financial statements for the years ended December 31, 2015 and 2014 were adjusted as follows:

In millions (except per share data)	2015			2014		
	Impact of Change			Impact of Change		
	Historical	to FIFO	As adjusted	Historical	to FIFO	As adjusted
Cost of sales	\$ 1,537.0	\$ (3.5)	\$ 1,533.5	\$ 1,837.6	\$ 0.4	\$ 1,838.0
Operating (loss) income	(15.9)	3.5	(12.4)	107.5	(0.4)	107.1
Loss from continuing operations before taxes	(114.5)	3.5	(111.0)	(20.0)	(0.4)	(20.4)
Benefit for income taxes	(42.6)	1.5	(41.1)	(18.0)	0.2	(17.8)
Loss from continuing operations	(71.9)	2.0	(69.9)	(2.0)	(0.6)	(2.6)
Net (loss) income	63.5	2.0	65.5	148.4	(0.6)	147.8
Net (loss) income attributable to Manitowoc common shareholders	63.5	2.0	65.5	144.5	(0.6)	143.9
Basic (loss) income per share from continuing operations	(0.53)	0.02	(0.51)	(0.04)	(0.01)	(0.05)
Diluted (loss) income per share from continuing operations	(0.53)	0.02	(0.51)	(0.04)	(0.01)	(0.05)

The Consolidated Balance Sheet for the year ended December 31, 2015 was adjusted as follows:

In millions	Impact of Change		
	Historical	to FIFO	As adjusted
Inventories	\$ 452.6	\$ 36.6	\$ 489.2
Other non-current assets	191.2	(13.8)	177.4
Retained earnings	539.5	22.8	562.3

The Consolidated Statements of Cash Flows for the years ended December 31, 2015 and 2014 were adjusted as follows:

For the years ended December 31,	2015			2014			
	In millions	Impact of Change			Impact of Change		
		Historical	to FIFO	As adjusted	Historical	to FIFO	As adjusted
Net (loss) income	\$ 63.5	\$ 2.0	\$ 65.5	\$ 148.4	\$ (0.6)	\$ 147.8	
Deferred income taxes	(5.9)	1.5	(4.4)	11.3	0.2	11.5	
Change in inventories, net	(3.7)	(3.5)	(7.2)	32.2	0.4	32.6	

The tables above present selected financial information “as adjusted for impact of change to FIFO” and “historical,” which represents the results of operations prior to the change to FIFO but after the classification of MFS to discontinued operations.

See Note 23, “Quarterly Financial Data (Unaudited),” for the impact of the change to FIFO on selected quarterly data.

7. Notes Receivable

Notes receivable balances as of December 31, 2016 and 2015, consisted primarily of amounts due to the Company's captive finance company in China, as well as the note receivable related to the sale of Manitowoc Dong Yue in 2014. As of December 31, 2016, the Company had current and long-term notes receivable in the amount of \$62.4 million and \$21.1 million, respectively. As of December 31, 2015, the Company had current and long-term notes receivable in the amount of \$65.1 million and \$56.7 million, respectively. Long-term notes receivable are included within other long-term assets on the Consolidated Balance Sheet. The collection of scheduled and past due payments resulted in a decrease in outstanding notes receivable.

8. Property, Plant and Equipment

The components of property, plant and equipment at December 31, 2016 and December 31, 2015 are summarized as follows:

(in millions)	2016	2015
Land	\$ 23.6	\$ 23.7
Building and improvements	225.0	218.7
Machinery, equipment and tooling	292.6	274.4
Furniture and fixtures	16.7	16.6
Computer hardware and software	126.0	132.4
Rental cranes	89.0	99.5
Construction in progress	16.7	81.0
Total cost	789.6	846.3
Less accumulated depreciation	(480.8)	(435.6)
Property, plant and equipment-net	\$ 308.8	\$ 410.7

In the twelve months ended December 31, 2016, the Company recorded \$96.9 million in asset impairment charges. See additional discussion of impairments in Note 20, “Restructuring and Asset Impairments.”

9. Goodwill and Other Intangible Assets

The changes in carrying amount of goodwill for the years ended December 31, 2016 and December 31, 2015 are as follows:

(in millions)	2016	2015
Gross balance as of January 1,	\$ 306.5	\$ 325.3
Foreign currency impact	(6.9)	(18.8)
Net balance as of December 31,	<u>\$ 299.6</u>	<u>\$ 306.5</u>

The Company accounts for goodwill and other intangible assets under the guidance of ASC Topic 350, “Intangibles — Goodwill and Other.” The Company performs impairment reviews for goodwill and indefinite-lived intangible assets using a fair-value method based on the present value of future cash flows, which involves management’s judgments and assumptions about the amounts of those cash flows and the discount rates used. The estimated fair value is then compared with the carrying amount of the reporting unit, including recorded goodwill, or indefinite-lived intangible asset. The intangible asset is then subject to risk of write-down to the extent that the carrying amount exceeds the estimated fair value.

Historically, the annual goodwill and indefinite-lived assets impairment testing was performed during the second quarter. The Company performed this test during the second quarter with no impairment. Subsequent to the impairment test performed during the second quarter, the Company moved the annual test to the fourth quarter on a prospective basis in order to align more closely to its internal forecasting cycle. Based on the results of that test, no impairment was indicated. The Company will continue to monitor changes in circumstances and test more frequently if those changes indicate that assets might be impaired.

The cranes business provides engineered lifting products that are used in a wide variety of applications, including energy and utilities, petrochemical and industrial projects, infrastructure development such as road, bridge and airport construction, and commercial and high-rise residential construction. The decline in oil prices, as well as uncertainty in global macroeconomic factors related to infrastructure and construction has caused the Company’s customers to defer or reduce capital spending.

A considerable amount of management judgment and assumptions are required in performing the impairment test, principally in determining the fair value of the reporting unit. While the Company believes the judgments and assumptions are reasonable, different assumptions could change the estimated fair value and, therefore, impairment charges could be required. Weakening industry or economic trends, disruptions to our business, unexpected significant changes or planned changes in the use of the assets or in entity structure may adversely impact the assumptions used in the valuations. The Company continually monitors market conditions and determines if any additional interim reviews of goodwill, other intangibles or long-lived assets are warranted. In the event the Company determines that assets are impaired in the future, the Company would recognize a non-cash impairment charge, which could have a material adverse effect on the Company’s Consolidated Balance Sheets and Results of Operations.

The gross carrying amount and accumulated amortization of the Company’s intangible assets other than goodwill are as follows as of December 31, 2016 and December 31, 2015 .

(in millions)	December 31, 2016			December 31, 2015		
	Gross Carrying Amount	Accumulated Amortization Amount	Net Book Value	Gross Carrying Amount	Accumulated Amortization Amount	Net Book Value
Trademarks and tradenames	\$ 92.4	\$ —	\$ 92.4	\$ 94.2	\$ —	\$ 94.2
Customer relationships	10.3	(7.8)	2.5	10.4	(7.1)	3.3
Patents	28.5	(27.4)	1.1	29.1	(26.6)	2.5
Engineering drawings	10.0	(9.9)	0.1	10.2	(9.3)	0.9
Distribution network	18.0	—	18.0	18.4	—	18.4
Other intangibles	0.2	(0.2)	—	0.3	(0.3)	—
	<u>\$ 159.4</u>	<u>\$ (45.3)</u>	<u>\$ 114.1</u>	<u>\$ 162.6</u>	<u>\$ (43.3)</u>	<u>\$ 119.3</u>

Amortization of intangible assets for the years ended December 31, 2016 , 2015 and 2014 was \$3.0 million , \$3.0 million and \$3.3 million , respectively.

Excluding the impact of any future acquisitions, divestitures or impairments, the Company anticipates amortization will be approximately \$2 million in 2017 and approximately \$0.4 million per year through 2021.

10. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses at December 31, 2016 and December 31, 2015 are summarized as follows:

(in millions)	2016	2015
Trade accounts payable	\$ 157.7	\$ 268.5
Employee related expenses	28.1	35.0
Accrued vacation	21.8	25.1
Miscellaneous accrued expenses	113.6	107.7
	\$ 321.2	\$ 436.3

11. Debt

Outstanding debt at December 31, 2016 and December 31, 2015 is summarized as follows:

(in millions)	2016	2015
Term loan A	\$ —	\$ 312.8
Term loan B	—	119.5
Senior notes due 2020	—	613.1
Senior notes due 2022	—	299.2
Senior notes due 2021	249.8	—
Other	35.7	66.3
Deferred financing costs	(4.0)	(13.3)
Total debt	281.5	1,397.6
Less current portion and short-term borrowings	(12.4)	(67.2)
Long-term debt	\$ 269.1	\$ 1,330.4

On March 3, 2016, the Company entered into a \$225.0 million Asset Based Revolving Credit Facility (as amended, the “ABL Revolving Credit Facility”) with Wells Fargo Bank, N.A. as administrative agent, and JP Morgan Chase Bank, N.A. and Goldman Sachs Bank USA as joint lead arrangers. The ABL Revolving Credit Facility capacity calculation is defined in the Agreement and dependent on the fair value of inventory and fixed assets of the Loan Parties, which secure the borrowings. The ABL Revolving Credit Facility has a term of 5 years, and includes a \$75.0 million Letter of Credit sublimit, \$10.0 million of which can be applied to the German borrower.

As of December 31, 2016, the Company did not have any borrowings outstanding on the ABL Revolving Credit Facility. During the year ended December 31, 2016, the highest daily borrowing was \$30.0 million and the average borrowing was \$8.1 million, while the average annual interest rate was 2.51%. The interest rate of the ABL Revolving Credit Facility fluctuates based on excess availability. As of December 31, 2016, the spreads for LIBOR and Prime borrowings were 1.50% and 0.50%, respectively, with excess availability of approximately \$144.0 million, which represents revolver borrowing capacity of \$160.4 million less U.S. letters of credit outstanding of \$16.4 million.

The ABL Revolving Credit Facility replaced the \$1,050.0 million Third Amended and Restated Credit Agreement (the “Prior Senior Credit Facility”), which was entered into on January 3, 2014. The Prior Senior Credit Facility included three different loan facilities. The first was a revolving facility in the amount of \$500.0 million, with a term of five years. The second facility was a Term A Loan in the aggregate amount of \$350.0 million, with a term of five years. The third facility was a Term B Loan in the amount of \$200.0 million, with a term of seven years.

Prior to termination of the Prior Senior Credit Facility in March 2016, the highest daily borrowing was \$234.0 million, the average borrowing was \$117.4 million, and the average annual interest rate was 3.5%.

As of December 31, 2015, the Company had outstanding \$175.0 million notional amount of float-to-fixed interest rate swaps outstanding related to Term Loan A under the Prior Senior Credit Facility that were designated as cash flow hedges. In 2016, these swaps were terminated along with the Prior Senior Credit Facility resulting in a loss of \$5.9 million related to the write-off of deferred financing expenses and \$4.3 million related to termination of interest rate swaps.

On February 18, 2016, the Company entered into an indenture with Wells Fargo Bank, N.A., as trust and collateral agent, and completed the sale of \$260.0 million aggregate principal amount of its 12.750% Senior Secured Second Lien Notes due August 15, 2021 (the “2021 Notes”). Interest on the 2021 Notes is payable semi-annually in February and August of each year. The 2021 Notes were sold pursuant to exemptions from registration under the Securities Act of 1933.

Both the ABL Revolving Credit Facility and 2021 Notes include customary covenants and events of default which include, without limitation, restrictions on indebtedness, capital expenditures, restricted payments, disposals, investments and acquisitions.

Additionally, the ABL Revolving Credit Facility contains a Fixed Charge Coverage springing financial covenant, which measures the ratio of (i) consolidated earnings before interest, taxes, depreciation, amortization and other adjustments as defined in the credit agreement, to (ii) fixed charges, as defined in the related credit agreement. The financial covenant is triggered only if the Company fails to maintain minimum levels of availability under the credit facility. If triggered, the Company must maintain a Minimum Fixed Charge Coverage Ratio of 1.00 to 1.

In October 2016, the ABL Revolving Credit Facility was amended to accommodate certain previously restricted activities related to the relocation of its manufacturing operations from Manitowoc, Wisconsin to Shady Grove, Pennsylvania as announced during the third quarter of 2016. Among other things, the amendment will allow the Company to transfer, sell and/or impair fixed assets located at the Manitowoc, Wisconsin facility with limited impact on the availability under the facility.

As of December 31, 2016, the Company had no outstanding fixed-to-float interest rate swaps related to the 2021 Notes.

On March 3, 2016, the Company redeemed its 8.50% Senior Notes due 2020 (the "Prior 2020 Notes") and 5.875% Senior Notes due 2022 (the "Prior 2022 Notes") for \$625.5 million and \$330.5 million, or 104.250% and 110.167% as expressed as a percentage of the principal amount, respectively.

The redemption of the Prior 2020 Notes resulted in a loss on debt extinguishment of \$31.5 million during the first quarter of 2016 and consisted of \$24.6 million related to redemption premium and \$6.9 million related to write-off of deferred financing fees. Previously monetized derivative assets related to fixed-to-float interest rate swaps were treated as an increase to the debt balance of the Prior 2020 Notes and were being amortized to interest expense over the life of the original swap. As a result of the redemption, the remaining monetization balance of \$11.8 million as of March 3, 2016 was amortized as a reduction to interest expense during the first quarter of 2016.

The redemption of the Prior 2022 Notes resulted in a loss on debt extinguishment of \$34.6 million during the first quarter of 2016 and consisted of \$31.2 million related to redemption premium and \$3.4 million related to write-off of deferred financing fees. Previously, derivative liabilities related to termination of fixed-to-float swaps were treated as a decrease to the debt balance of the Prior 2022 Notes and were being amortized to interest expense over the life of the original swap. As a result of the redemption, the remaining balance of \$0.7 million as of March 3, 2016 was amortized as an increase to interest expense during the first quarter of 2016.

Outstanding balances under the Company's Prior Senior Credit Facility and Prior 2020 and Prior 2022 Notes were repaid with proceeds from the 2021 Notes and a cash dividend from MFS in conjunction with the Spin-Off.

The balance sheet values of the Senior Notes as of December 31, 2016 and December 31, 2015 are not equal to the face value of the Senior Notes because of gains (losses) of previously terminated fixed-to-float interest rate hedges and original issue discounts included in the applicable balance sheet values (see Note 5, "Derivative Financial Instruments," of the Consolidated Financial Statements for more information).

As of December 31, 2016, the Company had outstanding \$35.7 million of other indebtedness that has a weighted-average interest rate of approximately 5.43%. This debt includes balances on local credit lines and capital lease obligations.

The aggregate scheduled maturities of outstanding debt obligations in subsequent years are as follows (in millions):

Year		
2017	\$	12.4
2018		5.8
2019		5.7
2020		3.8
2021		263.3
Thereafter		0.7
Total	\$	291.7

- The table of scheduled maturities above does not agree to the Company's total debt as of December 31, 2016 as shown on the Consolidated Balance Sheet due to \$10.2 million of OID.

As of December 31, 2016, the Company was in compliance with all affirmative and negative covenants in its debt instruments, inclusive of the financial covenants pertaining to the ABL Revolving Credit Facility and 2021 Notes. Based upon management's current plans and outlook, the Company believes it will be able to comply with these covenants during the subsequent twelve months.

12. Accounts Receivable Securitization

The Company maintains an accounts receivable securitization program with a commitment size of \$75.0 million, whereby transactions under the program are accounted for as sales in accordance with ASC Topic 860, "Transfers and Servicing."

On March 3, 2016, the Company replaced the Fifth Amended and Restated Receivables Purchase Agreement dated December 15, 2014 (“Prior RPA”) and entered into a Receivables Purchase Agreement (“RPA”) among Manitowoc Funding, LLC (“MTW Funding”), as Seller, The Manitowoc Company, Inc., as Servicer, and Wells Fargo Bank, N.A., as Purchaser and as Agent.

Under the RPA (and the related Purchase and Sale Agreements referenced in the RPA), the Company’s domestic trade accounts receivable are sold to MTW Funding which, in turn, sells, conveys, transfers and assigns to a third-party financial institution (“Purchaser”), all of MTW Funding's rights, title and interest in a pool of receivables to the Purchaser.

The Purchaser receives ownership of the pool of receivables in each instance. New receivables are purchased by MTW Funding and resold to the Purchaser as cash collections and reduce previously sold investments. The Company acts as the servicer (in such capacity, the “Servicer”) of the receivables and, as such, administers, collects and otherwise enforces the receivables. The Servicer is compensated for doing so on terms that are generally consistent with what would be charged by an unrelated servicer. The Servicer initially receives payments made by obligors on the receivables but is required to remit those payments to the Purchaser in accordance with the RPA. The Purchaser has no recourse for uncollectible receivables.

Trade accounts receivables sold to the Purchaser and being serviced by the Company totaled \$19.5 million and \$64.2 million as of December 31, 2016 and December 31, 2015, respectively.

Sales of trade receivables under the program are reflected as a reduction of accounts receivable in the accompanying Consolidated Balance Sheets, and the proceeds received, including collections on the deferred purchase price notes, are included in cash flows from operating activities in the accompanying Consolidated Statements of Cash Flows. The Company deems the interest rate risk related to the deferred purchase price notes to be de minimis, primarily because the average collection cycle of the related receivables is less than 60 days.

Due to the short collection cycle, as well as the Company’s collection history, the fair value of the Company’s deferred purchase price notes approximates book value. The fair value of the deferred purchase price notes recorded as of December 31, 2016 and December 31, 2015 was \$30.6 million and \$54.1 million, respectively, and is included in accounts receivable in the accompanying Consolidated Balance Sheets.

The securitization program contains customary affirmative and negative covenants. Among other restrictions, these covenants require the Company to meet specified financial tests, which include a minimum fixed charge coverage ratio which is the same as the covenant ratio required per the ABL Revolving Credit Facility. As of December 31, 2016, the Company was in compliance with all affirmative and negative covenants inclusive of the financial covenants pertaining to the RPA, as amended. Based on management’s current plans and outlook, the Company believes it will be able to comply with these covenants during the subsequent twelve months.

The Company's Prior RPA was entered into on December 15, 2014. Under the Prior RPA (and the related Purchase and Sale Agreements referenced in the Prior RPA), the Company’s domestic trade accounts receivable were sold to U.S. Seller and certain of the Company’s non-U.S. trade accounts receivable were sold to Cayman Seller. The U.S. Seller and Cayman Seller each then sold, conveyed, transferred and assigned to a third-party financial institution (“Purchaser”), all of the right, title and interest in and to the pool of receivables to the Purchaser.

The Prior RPA was subsequently amended to make various changes; such as in the originators and servicers thereunder and in the obligations of various MFS-related entities, generally in anticipation of the Spin-Off.

13. Income Taxes

Income (loss) from continuing operations are summarized below:

(in millions)	2016	2015	2014
(Loss) income from continuing operations before income taxes:			
Domestic	\$ (293.0)	\$ (184.0)	\$ (93.3)
Foreign	24.9	73.0	72.9
Total	<u>\$ (268.1)</u>	<u>\$ (111.0)</u>	<u>\$ (20.4)</u>

Income tax provision (benefit) from continuing operations is summarized as follows:

(in millions)	2016	2015	2014
Current:			
Federal and state	\$ (13.0)	\$ (48.6)	\$ (41.0)
Foreign	12.1	11.9	11.7
Total current	<u>\$ (0.9)</u>	<u>\$ (36.7)</u>	<u>\$ (29.3)</u>
Deferred:			
Federal and state	\$ 98.7	\$ (8.3)	\$ 16.7
Foreign	2.7	3.9	(5.2)
Total deferred	<u>\$ 101.4</u>	<u>\$ (4.4)</u>	<u>\$ 11.5</u>
Provision (benefit) for taxes on income	<u>\$ 100.5</u>	<u>\$ (41.1)</u>	<u>\$ (17.8)</u>

The federal statutory income tax rate is reconciled to the Company's effective income tax rate for continuing operations for the years ended December 31, 2016, 2015 and 2014 as follows:

	2016	2015	2014
Federal income tax at statutory rate	35.0 %	35.0 %	35.0 %
State income provision (benefit)	2.3	5.7	16.5
Manufacturing & research incentives	2.0	(0.4)	6.1
Taxes on foreign income which differ from the U.S. statutory rate	3.0	3.2	44.1
Adjustments for unrecognized tax benefits	(4.0)	1.5	51.5
Adjustments for valuation allowances	(69.8)	(8.5)	(25.0)
Spin-off tax costs	(1.3)	(1.8)	—
Change in assertion over permanently reinvest foreign earnings	—	—	(26.4)
Other items	(4.7)	2.3	(14.5)
Effective tax rate	<u>(37.5)%</u>	<u>37.0 %</u>	<u>87.3 %</u>

The 2016, 2015 and 2014 effective tax rates were favorably impacted by income earned in jurisdictions where the statutory rate was less than 35%. The impact on continuing operations of the foreign rate differential in 2016 is consistent the prior year.

As of each reporting date, the Company's management considers new evidence, both positive and negative, that could impact management's view with regard to future realization of deferred tax assets. Due to the Spin-Off that occurred in the first quarter of 2016, management reevaluated the deferred tax assets related to the domestic crane operations and determined that it was more likely than not that deferred tax assets related to its domestic crane operations were not realizable and the Company recorded a valuation allowance.

The Company has recorded valuation allowances on the deferred tax assets in Brazil, China Leasing, France, Germany, Slovakia, U.K., and the U.S. as it is more likely than not that they will not be utilized. The 2016 tax provision was impacted by an increase of \$187.0 million related to valuation allowances in these jurisdictions.

The Company will continue to periodically evaluate its valuation allowance requirements in light of changing facts and circumstances and may adjust its deferred tax asset valuation allowances accordingly. It is reasonably possible that the Company will either add to, or reverse a portion of its existing deferred tax asset valuation allowances in the future. Such

changes in the deferred tax asset valuation allowances will be reflected in the current operations through the Company's income tax provision and could have a material effect on operating results.

For 2016, the only significant item included in Other items was the net operating loss. For 2015, no items included in Other items are individually, or when appropriately aggregated, significant. For 2014, the only significant item included in Other items was nondeductible expenses.

Temporary differences and carryforwards that give rise to deferred tax assets and liabilities include the following items:

(in millions)	2016	2015
Non-current deferred tax assets (liabilities):		
Inventories	\$ 14.2	\$ 16.2
Accounts receivable	(4.6)	(6.9)
Property, plant and equipment	19.0	(10.6)
Intangible assets	(35.9)	(37.8)
Deferred employee benefits	71.8	77.2
Product warranty reserves	6.1	6.9
Product liability reserves	7.8	7.7
Tax credits	4.9	0.4
Loss carryforwards	145.4	102.1
Deferred revenue	10.8	10.2
Other	(1.7)	(8.1)
Total non-current deferred tax liabilities	237.8	157.3
Less valuation allowance	(269.6)	(86.5)
Net deferred tax liabilities, non-current	\$ (31.8)	\$ 70.8

The net deferred tax assets (liabilities) are reflected in the Consolidated Balance Sheets for the years ended December 31, 2016 and December 31, 2015 as follows:

(in millions)	2016	2015
Long-term income tax assets, included in other non-current assets	\$ 4.8	\$ 96.4
Long-term deferred income tax liability	(36.6)	(25.6)
Net deferred income tax liability	\$ (31.8)	\$ 70.8

The Company has not provided for additional U.S. income taxes on approximately \$474.2 million of undistributed earnings of consolidated non-U.S. subsidiaries included in stockholders' equity. Such earnings could become taxable upon sale or liquidation of these non-U.S. subsidiaries or upon dividend repatriation of cash balances. It is not practicable to estimate the amount of the unrecognized tax liability on such earnings. At December 31, 2016, approximately \$13.6 million of the Company's total cash and cash equivalents were held by its foreign subsidiaries. This cash is associated with earnings that the Company has asserted are permanently reinvested. The Company has no current plans to repatriate cash or cash equivalents held by its foreign subsidiaries because it plans to reinvest such cash and cash equivalents to support its operations and continued growth plans outside the U.S. through the funding of capital expenditures, acquisitions, research, operating expenses or other similar cash needs of these operations. Further, the Company does not currently forecast a need for these funds in the U.S. because its U.S. operations and debt service are supported by the cash generated by its U.S. operations.

The Company has approximately \$101.5 million of domestic federal loss carryforwards, which are available to reduce future domestic federal tax liabilities. The federal net operating loss carryforward expires 2036. All of the domestic loss carryforwards are offset by a valuation allowance.

The Company has approximately \$667.8 million of state net operating loss carryforwards, which are available to reduce future state tax liabilities. These state net operating loss carryforwards expire at various times through 2036. The Company has recorded a full valuation allowance related to the state net operating losses.

The Company has approximately \$341.9 million of foreign loss carryforwards, which are available to reduce future foreign tax liabilities. Substantially all of the foreign loss carryforwards are not subject to any time restrictions on their future use, and \$332.4 million are offset by a valuation allowance.

The Company or one of its subsidiaries files income tax returns in the U.S. federal jurisdiction, and various state and foreign jurisdictions. The following table provides the open tax years for which the Company could be subject to income tax examination by the tax authorities in its major jurisdictions:

Jurisdiction	Open Years
U.S. Federal	2012 — 2016
China	2007 — 2016
France	2013 — 2016
Germany	2011 — 2016

Among other regular and ongoing examinations by federal and state jurisdictions globally, the Company is under examination by the Internal Revenue Service for calendar year 2012 to 2014. There have been no significant developments with respect to the Company's ongoing tax audits in other jurisdictions.

The Company regularly assesses the likelihood of an adverse outcome resulting from examinations to determine the adequacy of its tax reserves. As of December 31, 2016, the Company believes that it is more likely than not that the tax positions it has taken will be sustained upon the resolution of its audits resulting in no material impact on its consolidated financial position and the results of operations and cash flows. However, the final determination with respect to any tax audits, and any related litigation, could be materially different from the Company's estimates and/or from its historical income tax provisions and accruals and could have a material effect on operating results and/or cash flows in the periods for which that determination is made. In addition, future period earnings may be adversely impacted by litigation costs, settlements, penalties, and/or interest assessments.

During the years ended December 31, 2016, 2015 and 2014, the Company recorded a change to gross unrecognized tax benefits including interest and penalties of \$(0.8) million, \$(1.9) million, and \$(12.1) million, respectively.

During the years ended December 31, 2016, 2015 and 2014, the Company recognized in the Consolidated Statements of Operations \$2.8 million, \$(0.5) million, and \$(2.4) million, respectively, for interest and penalties related to uncertain tax liabilities, which the Company recognizes as a part of income tax expense. As of December 31, 2016 and 2015, the Company has accrued interest and penalties of \$7.4 million and \$4.6 million, respectively.

A reconciliation of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2016, 2015 and 2014 is as follows:

(in millions)	2016	2015	2014
Balance at beginning of year	\$ 19.4	\$ 20.8	\$ 29.5
Additions based on tax positions related to the current year	1.1	1.3	1.5
Additions for tax positions of prior years	5.0	0.2	3.2
Reductions for tax positions of prior years	(9.3)	—	(2.7)
Reductions based on settlements with taxing authorities	—	—	(5.0)
Reductions for lapse of statute	(0.4)	(2.9)	(5.7)
Balance at end of year	\$ 15.8	\$ 19.4	\$ 20.8

Substantially all of the Company's unrecognized tax benefits as of December 31, 2016, 2015 and 2014, if recognized, would affect the effective tax rate.

During the next twelve months, it is reasonably possible that federal, state and foreign tax audit resolutions could reduce unrecognized tax benefits and income tax expense by up to \$11.2 million, either because the Company's tax positions are sustained on audit or settled, or the applicable statute of limitations closes.

The Company has a Tax Matters Agreement with Manitowoc Foodservice, Inc. that provides that MFS shall be liable for and shall indemnify the Company against certain U.S. (including states) and foreign income taxes resulting from tax obligations arising due to operations reported on a separate company basis prior to March 4, 2016, where MFS has retained the legal entity post Spin-Off. In addition, the Company is liable for and shall indemnify MFS against certain U.S. (including states) and foreign income taxes arising due to operations prior to March 4, 2016, where such taxes result from combined filings (i.e., when the legal entities of the Company filed as a combined group with legal entities of MFS prior to the Spin-Off) or relate to operations where the Company has retained the legal entity past separation.

14. Earnings Per Share

The following is a reconciliation of the average shares outstanding used to compute basic and diluted earnings per share:

	2016	2015	2014
Basic weighted average common shares outstanding	137,767,109	136,036,192	134,934,892
Effect of dilutive securities - stock awards	—	—	—
Diluted weighted average common shares outstanding	137,767,109	136,036,192	134,934,892

For the years ended December 31, 2016, 2015, and 2014, 0.9 million, 2.8 million, and 1.2 million, respectively, of common shares issuable upon the exercise of stock options were anti-dilutive and were excluded from the calculation of diluted earnings per share.

For the years ended December 31, 2016 , 2015 , and 2014 , respectively, the total number of potentially dilutive options was 1.4 million , 1.4 million , and 2.4 million , respectively. Because the Company had a loss from continuing operations for the year, these dilutive options were not included in the computation of diluted net loss per common share since doing so would decrease the loss per share.

15. Equity

Authorized capitalization consists of 300 million shares of \$0.01 par value common stock and 3.5 million shares of \$0.01 par value preferred stock. None of the preferred shares have been issued.

On March 21, 2007, the Board of Directors of the Company approved the Rights Agreement between the Company and Computershare Trust Company, N.A., as Rights Agent and declared a dividend distribution of one right (a Right) for each outstanding share of Common Stock, par value \$0.01 per share, of the Company, to shareholders of record at the close of business on March 30, 2007. In addition to the Rights issued as a dividend on the record date, the Board of Directors also determined that one Right would be issued together with each share of common stock issued by the Company after March 30, 2007. Generally, each Right, if it became exercisable, entitled the registered holder to purchase from the Company one share of common stock at a purchase price, in cash, of \$110.00 per share, subject to adjustment as set forth in the Rights Agreement, under certain circumstances related to certain acquisitions of Company common stock. On December 27, 2016, the Rights Agreement was amended such that the Rights expired as of December 31, 2016, and therefore are no longer outstanding.

The amount and timing of any dividends are determined by the Board of Directors at its regular meetings each year, subject to limitations within the Company's Senior Notes Indenture and the ABL Revolving Credit Facility. No cash dividends were declared or paid in the year ended December 31, 2016. In each of the years ended December 31, 2015 and December 31, 2014, the Company paid an annual dividend of \$0.08 per share in the fourth quarter.

Currently, the Company has authorization to purchase up to 2.4 million shares of common stock at management's discretion; however, the Company has not purchased any share of its common stock pursuant to this authorization since 2006.

The components of accumulated other comprehensive income (loss) as of December 31, 2016 and 2015 are as follows:

(in millions)	2016	2015
Foreign currency translation	\$ (110.8)	\$ (121.4)
Derivative instrument fair market value, net of income taxes of \$(0.3) and \$(2.2)	(0.3)	(3.8)
Employee pension and postretirement benefit adjustments, net of income taxes of \$(19.0) and \$(35.2)	(51.8)	(82.6)
	<u>\$ (162.9)</u>	<u>\$ (207.8)</u>

A reconciliation for the changes in accumulated other comprehensive income (loss), net of tax, by component for the year ended December 31, 2015 and December 31, 2016 is as follows:

(in millions)	Gains and Losses on Cash Flow Hedges	Pension & Postretirement	Foreign Currency Translation	Total
Balance at December 31, 2014	\$ (6.3)	\$ (95.0)	\$ (29.2)	\$ (130.5)
Other comprehensive loss before reclassifications	14.0	17.9	(92.2)	(60.3)
Amounts reclassified from accumulated other comprehensive income	(11.5)	(5.5)	—	(17.0)
Net current period other comprehensive income	2.5	12.4	(92.2)	(77.3)
Balance at December 31, 2015	(3.8)	(82.6)	(121.4)	(207.8)
Other comprehensive loss before reclassifications	(2.9)	(8.6)	(20.4)	(31.9)
Amounts reclassified from accumulated other comprehensive income	4.3	4.5	—	8.8
Net current period other comprehensive loss	1.4	(4.1)	(20.4)	(23.1)
Distribution of MFS	2.1	34.9	31.0	68.0
Balance at December 31, 2016	<u>\$ (0.3)</u>	<u>\$ (51.8)</u>	<u>\$ (110.8)</u>	<u>\$ (162.9)</u>

A reconciliation for the reclassifications out of accumulated other comprehensive income, net of tax, for the year ended December 31, 2016 is as follows:

(in millions)	Amount Reclassified from Accumulated Other Comprehensive Income	Recognized Location
Gains and losses on cash flow hedges		
Foreign exchange contracts	\$ (0.9)	Cost of sales
Commodity contracts	(0.2)	Cost of sales
Interest rate swap contracts: Float-to-fixed	(4.3)	Interest expense
	(5.4)	Total before tax
	1.1	Tax benefit
	<u>\$ (4.3)</u>	Net of tax
Amortization of pension and postretirement items		
Actuarial losses	\$ (4.6) (a)	
Amortization of prior service cost	(0.1) (a)	
	(4.7)	Total before tax
	0.2	Tax benefit
	<u>\$ (4.5)</u>	Net of Tax
Total reclassifications for the period	<u>\$ (8.8)</u>	Net of Tax

(a) These other comprehensive income components are included in the computation of net periodic pension cost (see Note 21, "Employee Benefit Plans," for further details).

A reconciliation for the reclassifications out of accumulated other comprehensive income, net of tax, for the year ended December 31, 2015 is as follows:

(in millions)	Amount Reclassified from Accumulated Other Comprehensive Income	Recognized Location
Gains and losses on cash flow hedges		
Foreign exchange contracts	\$ (11.7)	Cost of sales
Commodity contracts	(4.0)	Cost of sales
Interest rate swap contracts: Float-to-fixed	(2.6)	Interest expense
	(18.3)	Total before tax
	6.8	Tax expense
	<u>\$ (11.5)</u>	Net of tax
Amortization of pension and postretirement items		
Actuarial losses	\$ (7.5) (a)	
Amortization of prior service cost	(0.1) (a)	
	(7.6)	Total before tax
	2.1	Tax benefit
	<u>\$ (5.5)</u>	Net of Tax
Total reclassifications for the period	<u>\$ (17.0)</u>	Net of Tax

(a) These other comprehensive income components are included in the computation of net periodic pension cost (see Note 21, "Employee Benefit Plans," for further details).

A reconciliation for the reclassifications out of accumulated other comprehensive income, net of tax, for the year ended December 31, 2014 is as follows:

(in millions)	Amount Reclassified from Accumulated Other Comprehensive Income	Recognized Location
Gains and losses on cash flow hedges		
Foreign exchange contracts	\$ (2.2)	Cost of sales
Commodity contracts	(0.1)	Cost of sales
Interest rate swap contracts: Float-to-fixed	(1.8)	Interest expense
	(4.1)	Total before tax
	1.5	Tax expense
	\$ (2.6)	Net of tax
Amortization of pension and postretirement items		
Actuarial losses	\$ (4.3) (a)	
Amortization of prior service cost	0.2 (a)	
	(4.1)	Total before tax
	1.0	Tax benefit
	\$ (3.1)	Net of Tax
Total reclassifications for the period	\$ (5.7)	Net of Tax

(a) These other comprehensive income components are included in the computation of net periodic pension cost (see Note 21, “Employee Benefit Plans,” for further details).

16. Stock-Based Compensation

The Company’s 2013 Omnibus Incentive Plan (the “2013 Omnibus Plan”) was approved by shareholders on May 7, 2013 and replaced the 2003 Incentive Stock and Awards Plan (the “2003 Stock Plan”) and 2004 Non-Employee Director Stock and Awards Plan (the “2004 Stock Plan”). The 2013 Omnibus Plan also replaced the Company’s Short-Term Incentive Plan (the “STIP”) as of December 31, 2013. The 2003 Stock Plan, the 2004 Stock Plan and the STIP are referred to as the “Prior Plans.” No new awards may be granted under the Prior Plans after the respective termination dates, but the Prior Plans continue to govern awards outstanding; outstanding awards will continue in force and effect until vested, exercised or forfeited pursuant to their terms. The 2013 Omnibus Plan provides for both short-term and long-term incentive awards for employees and non-employee directors. Stock-based awards may take the form of stock options, stock appreciation rights, restricted stock, restricted stock units, and performance share or performance unit awards. The total number of shares of the Company’s common stock originally available for awards under the 2013 Omnibus Plan was 8.0 million shares. On March 18, 2016, the Board of Directors approved an amendment to the 2013 Omnibus Plan to reflect the effect of the Spin-Off of MFS. The amendment adjusted the number of shares of common stock reserved for future awards under the Plan, and in February 2017 the Company registered an additional 22,145,082 shares for issuance under the Plan. The adjustment is in accordance with plan provisions, as the number of shares available under the 2013 Omnibus Plan is subject to adjustments for stock splits, stock dividends and certain other transactions or events in the future.

The 2003 Stock Plan and the 2013 Omnibus Plan provided for both short-term and long-term incentive awards for employees, and the 2013 Omnibus Plan also provided for granting of long-term incentive awards for non-employee members of the Board of Directors. Options granted prior to 2011 became exercisable in 25% increments beginning on the second anniversary of the grant date over a four -year period and expire ten years subsequent to the grant date. Option grants to employees beginning in 2011 became exercisable in 25% increments beginning on the first anniversary of the grant date over a four -year period and expire ten years subsequent to the grant date. Restrictions on restricted stock awards and restricted stock units granted to employees lapse 100% on the third anniversary of the grant date . Restrictions on restricted stock units granted to non-employee members of the Board of Directors lapse 100% on the second anniversary of the grant date. Performance shares are earned based on the extent to which performance goals are met over the applicable performance period. The performance goals and the applicable performance period vary for each grant year. An explanation of the performance goals and the applicable performance period for the 2016 and 2014 awards is set forth below.

The 2004 Stock Plan provided for the granting of stock options to non-employee members of the Board of Directors. No new awards may be made under the 2004 Stock Plan. Stock options awarded under the plan were granted at an exercise price equal to the market price of the common stock at the date of grant and vest immediately and expire ten years subsequent to the grant date. Restrictions on restricted stock awarded to date under the plan lapse on the third anniversary of the award date.

The Company recognizes expense for all stock-based compensation on a straight-line basis over the vesting period of the entire award.

Total stock-based compensation expense recognized within engineering, selling and administrative expenses in the Consolidated Statements of Operations was \$4.9 million, \$9.7 million and \$10.3 million during 2016, 2015 and 2014, respectively. In 2016, the Company also recognized \$2.8 million of expense before tax related to restricted stock retention awards and modification of performance awards due to the Spin-Off, and \$1.3 million of expense before tax related to the modification of stock awards associated with employee severance; these expenses are included in “other expense” and “restructuring expense,” respectively, within operating earnings in the Consolidated Statements of Operations. The Company recognized stock-based compensation expense before tax of \$0.3 million, \$4.7 million and \$2.4 million related to MFS which is included in “(loss) income from discontinued operations” in the Consolidated Statements of Operations.

Shares are issued out of treasury stock upon exercise for stock options and vesting of restricted stock awards and restricted stock units.

Stock Options

Any option grants to directors are exercisable immediately upon granting and expire ten years subsequent to the grant date. For all outstanding grants made to officers and employees prior to 2011, options become exercisable in 25% increments annually over a four -year period beginning on the second anniversary of the grant date and expire ten years subsequent to the grant date. Starting with 2011 grants to officers and directors, options become exercisable in 25% increments annually over a four -year period beginning on the first anniversary of the grant date and expire ten years subsequent to the grant date.

The Company granted options to acquire 1.8 million, 0.7 million and 0.3 million shares of common stock during 2016, 2015 and 2014, respectively. Stock-based compensation expense is calculated by estimating the fair value of incentive and non-qualified stock options at the time of grant and is amortized over the stock options’ vesting period. The Company recognized \$1.8 million, \$3.7 million and \$4.9 million of compensation expense before taxes associated with stock options during 2016, 2015 and 2014, respectively.

A summary of the Company’s stock option activity is as follows (in millions, except weighted average exercise price per share, which has been adjusted for the Spin-Off):

	Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value
Options outstanding as of January 1, 2015	5.6	\$ 18.23	
Granted	0.7	21.02	
Exercised	(0.5)	9.63	
Cancelled	(0.3)	23.70	
Options outstanding as of December 31, 2015	5.5	19.04	
Granted	1.8	4.30	
Exercised	(2.9)	3.27	
Forfeited	(0.3)	4.21	
Cancelled	(0.2)	4.32	
Options outstanding as of December 31, 2016	3.9	\$ 4.44	\$ 7.5
Options exercisable as of:			
December 31, 2016	2.0	\$ 4.55	\$ 3.9

The outstanding stock options at December 31, 2016 have a range of exercise prices from \$0.90 to \$9.76 per share. The following table shows the options outstanding and exercisable by range of exercise prices at December 31, 2016 (in millions,

except range of exercise price per share, weighted average remaining contractual life and weighted average exercise price):

Range of Exercise Price per Share	Outstanding Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Exercisable Options	Weighted Average Exercise Price
\$0.90 - \$6.00	3.2	7.0	\$ 3.89	1.3	\$ 3.25
\$6.01 - \$7.00	0.4	0.3	6.02	0.4	6.02
\$7.01 - \$9.00	0.3	1.0	7.90	0.3	7.90
\$9.01 - \$9.76	—	0.9	9.44	—	9.44
	3.9	3.1	\$ 4.44	2.0	\$ 4.55

The Company uses the Black-Scholes valuation model to value stock options. The Company used its historical stock prices as the basis for its volatility assumption for grants prior to the Spin-Off. For grants after the Spin-Off, the Company used an average of historical stock prices of selected peers. The assumed risk-free rates were based on ten-year U.S. Treasury rates in effect at the time of grant. The expected option life represents the period of time that the options granted are expected to be outstanding and is based on historical experience.

As of December 31, 2016, the Company has \$2.7 million of unrecognized compensation expense before tax related to stock options, which will be recognized over a weighted average period of 2.9 years.

The weighted average fair value of options granted per share during the years ended December 31, 2016, 2015 and 2014 was \$2.05, \$10.93 and \$14.84, respectively. The fair value of each option grant was estimated at the date of grant using the Black-Scholes option-pricing method with the following assumptions:

	2016	2015	2014
Expected Life (years)	6.5	6.0	6.0
Risk-free Interest rate	1.6%	1.8%	1.9%
Expected volatility	45.0%	56.0%	55.0%
Expected dividend yield	—%	0.3%	0.4%

For the years ended December 31, 2016, 2015 and 2014 the total intrinsic value of stock options exercised was \$6.3 million, \$5.6 million and \$28.5 million, respectively.

Restricted Stock Awards

The Company granted 0.4 million of restricted stock awards granted to employees in 2015 as retention awards to provide incentive for the employees to continue in employment and contribute toward the successful completion of the separation. Under the retention agreements, the restricted shares will vest on the second anniversary of Spin-Off if the employee has been continuously employed with the Company or an affiliate through that second anniversary. In years prior to 2014, the Company granted restricted stock to employees and directors, which vest on the third and second anniversary of the grant, respectively.

The Company recognized \$1.8 million, \$0.3 million and \$1.0 million of compensation expense associated with restricted stock for the years ended December 31, 2016, 2015 and 2014, respectively. Restricted stock award expense is based on the fair value of the Company's shares as of the grant date.

A summary of activity for restricted stock awards for the year ended December 31, 2016 is as follows (in millions except weighted average grant date fair value):

	Shares	Weighted Average Grant Date Fair Value
Unvested as of January 1, 2016	0.4	\$ 21.73
Granted	—	—
Vested	(0.2)	21.73
Forfeited	—	21.73
Unvested as of December 31, 2016	0.2	\$ 21.73

As of December 31, 2016, the Company has \$0.5 million of unrecognized compensation expense before tax related to restricted stock awards which will be recognized over a weighted average period of 1.2 years.

Restricted Stock Units

The Company granted 1.4 million, 0.6 million and 0.4 million of restricted stock units in 2016, 2015 and 2014, respectively. The restricted stock units are earned either based on service over the vesting period, or based on service over the vesting period and on the extent to which performance goals are met over the applicable performance period (“performance shares”). The performance goals and the applicable performance period vary for performance shares each grant year. The Company recognized \$4.0 million, \$7.5 million and \$5.9 million of compensation expense associated with restricted stock units during 2016, 2015 and 2014, respectively.

The restricted stock units granted to employees in 2016 generally vest on the third anniversary of the grant date, assuming continued employment. The restricted stock units granted to directors in 2016 vest on the second anniversary of the grant date, assuming continued service. The performance shares granted in 2016 are earned based on the extent to which performance goals are met by the Company over a three-year period from January 1, 2016 to December 31, 2018. The performance goals for the performance shares granted in 2016 were based fifty percent (50%) on total shareholder return relative to a peer group of companies over the three-year period and fifty percent (50%) on return on invested capital over the three-year period. Depending on the foregoing factors, the number of shares awarded could range from zero to 1.6 million for the 2016 performance share grants. For these awards, the expense is based on the fair value of the Company's shares as of the grant date for the return on invested capital criteria and a Monte Carlo model for the total shareholder return criteria.

The restricted stock units granted to employees in 2015 generally vest on the third anniversary of the grant date, assuming continued employment. The restricted stock units granted to directors in 2015 generally vest on the second anniversary of the grant date, assuming continued service. Performance shares were not granted in 2015 due to the anticipated Spin-Off.

The restricted stock units granted to employees in 2014 generally vest on the third anniversary of the grant date, assuming continued employment. The restricted stock units granted to directors in 2014 vest on the second anniversary of the grant date, assuming continued service. Prior to the Spin-Off, the performance shares granted in 2014 were earned based on the extent to which performance goals were expected to be met by the Company over a three-year period from January 1, 2014 to December 31, 2016. The performance goals for the performance shares granted in 2014 were based fifty percent (50%) on total shareholder return relative to a peer group of companies over the three-year period and fifty percent (50%) on EVA[®] improvement over the three-year period. Concurrent with the Spin-Off, the Company's Compensation Committee re-evaluated these performance measures and, due to challenges related to the calculation of the results on such measures on account of the Spin-Off, the Compensation Committee exercised discretion and determined that vesting of the 2014 performance shares would be solely based on service through December 31, 2016. As a result, for employees who met the service condition, the 2014 performance shares paid out at 100% of target. For these awards, the grant date expense was based on the fair value of the Company's shares as of the grant date for the EVA[®] improvement criteria and a Monte Carlo model for the total shareholder return criteria. Because of the modification of the 2014 performance awards, the Company also recognized an additional \$1.0 million of expense before tax; this expense is included in “other expense” within operating earnings in the Consolidated Statements of Operations.

A summary of activity for restricted stock units for the year ended December 31, 2016 is as follows (in millions except weighted average grant date fair value):

	Shares	Weighted Average Grant Date Fair Value
Unvested as of January 1, 2016	0.7	\$ 25.53
Granted	1.4	5.36
Vested	(0.2)	22.43
Forfeited	(0.2)	11.07
Unvested as of December 31, 2016	1.7	\$ 11.02

As of December 31, 2016, the Company has \$5.4 million of unrecognized compensation expense before tax related to restricted stock units which will be recognized over a weighted average period of 2.0 years.

17. Segments

The Company has one reportable segment, the Crane business. The segment was identified using the “management approach,” which designates the internal organization that is used by management for making operating decisions and assessing performance.

Net sales from continuing operations and long-lived asset information by geographic area as of and for the years ended December 31 are included below. Long-lived assets are defined as property, plant and equipment-net and other non-current assets, excluding goodwill, other intangible assets-net and deferred tax assets.

(in millions)	Net Sales			Long-Lived Assets	
	2016	2015	2014	2016	2015
United States	\$ 641.3	\$ 784.5	\$ 951.3	\$ 152.9	\$ 258.6
Other North America	61.9	87.2	156.9	—	—
Europe	520.7	418.9	554.3	129.9	135.3
Asia	159.1	184.8	221.2	50.5	86.3
Middle East	119.6	193.8	212.7	1.4	1.5
Central and South America	24.9	63.7	93.1	10.8	11.8
Africa	39.7	80.0	54.5	—	—
South Pacific and Caribbean	8.2	5.9	7.3	—	3.8
Australia	37.7	46.9	53.9	0.4	0.1
Total	\$ 1,613.1	\$ 1,865.7	\$ 2,305.2	\$ 345.9	\$ 497.4

18. Contingencies and Significant Estimates

As of December 31, 2016, the Company held reserves for environmental matters related to potential contaminants in soil and groundwater. The ultimate cost of any remediation required will depend upon the results of future investigation. Based upon available information, the Company does not expect the ultimate costs at any of these locations will have a material adverse effect on its financial condition, results of operations, or cash flows individually and in aggregate.

The Company believes that it has obtained and is in substantial compliance with those material environmental permits and approvals necessary to conduct its various businesses. Based on the facts presently known, the Company does not expect environmental compliance costs to have a material adverse effect on its financial condition, results of operations or cash flows.

As of December 31, 2016, various product-related lawsuits were pending. To the extent permitted under applicable law, all of these are insured with self-insurance retention levels. The Company’s self-insurance retention levels vary by business, and have fluctuated over the last 10 years. The high-end of the Company’s self-insurance retention level is a legacy product liability insurance program inherited in the Grove acquisition for cranes manufactured in the United States for occurrences from January 2000 through October 2002. As of December 31, 2016, the largest self-insured retention level for new occurrences currently maintained by the Company is \$2.0 million per occurrence and applies to product liability claims for cranes manufactured in the United States.

Product liability reserves in the Consolidated Balance Sheets at December 31, 2016 and December 31, 2015 were \$21.7 million and \$21.9 million, respectively, which were estimated using a combination of actual case reserves and actuarial methods. Based on the Company’s experience in defending product liability claims, management believes the current reserves are adequate for estimated case resolutions on aggregate self-insured claims and insured claims. Any recoveries from insurance carriers are dependent upon the legal sufficiency of claims and solvency of insurance carriers.

At December 31, 2016, and December 31, 2015, the Company had reserved \$28.6 million and \$32.4 million, respectively, for warranty claims included in product warranties and other non-current liabilities in the Consolidated Balance Sheets. Certain of these warranty and other related claims involve matters in dispute that ultimately are resolved by negotiations, arbitration, or litigation. See Note 19, “Guarantees,” for further information.

It is reasonably possible that the estimates for environmental remediation, product liability and warranty costs may change in the near future based upon new information that may arise or matters that are beyond the scope of the Company’s historical experience. Presently, there are no reliable methods to estimate the amount of any such potential changes.

The Company is involved in numerous lawsuits involving asbestos-related claims in which the Company is one of numerous defendants. After taking into consideration legal counsel’s evaluation of such actions, the current political environment with respect to asbestos related claims, and the liabilities accrued with respect to such matters, in the opinion of management,

ultimate resolution is not expected to have a material adverse effect on the financial condition, results of operations, or cash flows of the Company.

The Company is also involved in various legal actions arising out of the normal course of business, which, taking into account the liabilities accrued and legal counsel's evaluation of such actions, in the opinion of management, the ultimate resolution of all matters is not expected to have a material adverse effect on the Company's financial condition, results of operations, or cash flows.

19. Guarantees

The Company periodically enters into transactions with customers that provide for residual value guarantees and buyback commitments. These initial transactions are recorded as deferred revenue and are amortized to income on a straight-line basis over a period equal to that of the customer's third party financing agreement. The deferred revenue included in accounts payable and accrued expenses and non-current liabilities at December 31, 2016 and December 31, 2015 was \$30.4 million and \$43.0 million, respectively. The total amount of residual value guarantees and buyback commitments given by the Company and outstanding at December 31, 2016 and December 31, 2015 was \$32.8 million and \$42.9 million, respectively. These amounts are not reduced for amounts the Company would recover from repossessing and subsequent resale of the units. The residual value guarantees and buyback commitments expire at various times through 2019.

In the normal course of business, the Company provides its customers a warranty covering workmanship, and in some cases materials, on products manufactured by the Company. Such warranty generally provides that products will be free from defects for periods ranging from 12 months to 60 months. If a product fails to comply with the Company's warranty, the Company may be obligated, at its expense, to correct any defect by repairing or replacing such defective products. The Company provides for an estimate of costs that may be incurred under its warranty at the time product revenue is recognized. These costs primarily include labor and materials, as necessary, associated with repair or replacement. The primary factors that affect the Company's warranty liability include the number of units shipped and historical and anticipated warranty claims. As these factors are impacted by actual experience and future expectations, the Company assesses the adequacy of its recorded warranty liability and adjusts the amounts as necessary. Below is a table summarizing the warranty activity for the years ended December 31, 2016 and 2015:

(in millions)	2016	2015
Balance at beginning of period	\$ 32.4	\$ 36.1
Accruals for warranties issued during the period	20.4	22.4
Settlements made (in cash or in kind) during the period	(23.7)	(24.4)
Currency translation	(0.5)	(1.7)
Balance at end of period	<u>\$ 28.6</u>	<u>\$ 32.4</u>

20. Restructuring and Asset Impairments

The Company initiated restructuring plans in 2015 to focus on its cranes business and Spin-Off of MFS. The Spin-Off was completed in the first quarter of 2016. Refer to Notes 1 and 3 for further information regarding the Spin-Off. The Company is continuing its restructuring activities to right-size the business by balancing capacity with demand. During the twelve months ended December 31, 2016, 2015 and 2014, the Company incurred \$23.4 million, \$9.4 million and \$6.6 million of restructuring expense, respectively. These costs related primarily to employee termination benefits associated with workforce reductions. The workforce reductions are part of ongoing manufacturing and operations rationalization programs, including the planned closure of the Company's manufacturing facility in Manitowoc, WI, which was announced during the third quarter of 2016. The restructuring expense in the twelve months ended December 31, 2016, and December 31, 2015 included \$2.3 million and \$3.5 million, respectively, of expense related to executive severance.

During the third quarter of 2016, the Company announced its intent to relocate its crawler crane manufacturing operations located in Manitowoc, Wisconsin to Shady Grove, Pennsylvania, with completion anticipated by the middle of 2017. This initiative is intended to increase operational efficiency, and thereby increase future operating results and liquidity, allowing the Company to reallocate resources to invest in future growth.

Including amounts already incurred, the Company expects to incur cash charges related to severance costs and other employment-related benefits in the range of \$10 to \$15 million, capital expenditures in the range of \$10 to \$15 million and other costs in the range of \$15 to \$20 million related to the plant consolidation into Shady Grove, Pennsylvania. The Company anticipates that the majority of the cash charges will be settled by the end of 2017. Non-cash charges, primarily related to fixed

assets and inventory related charges are expected to be in the range of \$20 to \$25 million and are anticipated to be recognized by the end of 2017.

The following is a roll-forward of the Company's restructuring activities for the twelve months ended December 31, 2016 (in millions):

	Restructuring Reserve Balance as of December 31, 2015	Restructuring Expenses	Use of Reserve	Reserve Reclassifications	Restructuring Reserve Balance as of December 31, 2016
Total	\$ 6.5	\$ 23.4	\$ 20.8	\$ 0.9	\$ 8.2

In the twelve months ended December 31, 2016, the Company recorded \$96.9 million in asset impairment expense. This included a \$13.8 million write-down to fair value related to the fixed assets of the Manitowoc, WI manufacturing facility. Further, during 2016, the Company, in conjunction with the decision to close the manufacturing location in Manitowoc, WI, made the decision to permanently stop any further work on implementing its SAP enterprise resource planning ("ERP") platform, and recorded a write-off of \$58.6 million related to SAP construction-in-progress and \$18.6 million related to SAP and other IT assets. The remainder of the impairment expense for the year was related to other restructuring actions.

Asset impairment expense for the year ended December 31, 2015 was \$15.3 million. The impairment recorded in 2015 resulted from the write-down of manufacturing facilities in Brazil and Slovakia.

Asset valuations are estimates and require assumptions and judgment by management. While the Company believes the estimates and assumptions are reasonable, a change in assumptions, including market conditions, could change the estimated fair value and, therefore, further impairment charges could be required.

21. Employee Benefit Plans

The Company maintains three defined contribution retirement plans for its employees: (1) The Manitowoc Company, Inc. 401(k) Retirement Plan (the "Manitowoc 401(k) Retirement Plan"); (2) The Manitowoc Company, Inc. Retirement Savings Plan (the "Manitowoc Retirement Savings Plan"); and (3) The Manitowoc Company, Inc. Deferred Compensation Plan (the "Manitowoc Deferred Compensation Plan"). Each plan results in individual participant balances that reflect a combination of amounts contributed by the Company or deferred by the participant, amounts invested at the direction of either the Company or the participant, and the continuing reinvestment of returns until the accounts are distributed.

Manitowoc 401(k) Retirement Plan The Manitowoc 401(k) Retirement Plan is a tax-qualified retirement plan that is available to substantially all non-union U.S. employees of Manitowoc, its subsidiaries and related entities. The Company merged the accounts of non-union participants in the Enodis Corporation 401(k) Plan with and into the Manitowoc 401(k) Retirement Plan on December 31, 2009.

The Manitowoc 401(k) Retirement Plan allows employees to make both pre- and post-tax elective deferrals, subject to certain limitations under the Internal Revenue Code of 1986, as amended (the "Tax Code"). The Company also has the right to make the following additional contributions: (1) a matching contribution based upon individual employee deferrals; (2) an economic value added ("EVA") based Company contribution; and (3) an additional non-EVA-based Company contribution. Each participant in the Manitowoc 401(k) Retirement Plan is allowed to direct the investment of that participant's account among a diverse mix of investment funds, including a Company stock alternative. To the extent that any funds are invested in Company stock, that portion of the Manitowoc 401(k) Retirement Plan is an employee stock ownership plan, as defined under the Tax Code (an "ESOP").

The terms governing the retirement benefits under the Manitowoc 401(k) Retirement Plan are the same for the Company's executive officers as they are for other eligible employees in the U.S.

Manitowoc Retirement Savings Plan The Manitowoc Retirement Savings Plan is a tax-qualified retirement plan that is available to certain collectively bargained U.S. employees of Manitowoc, its subsidiaries and related entities. The Company merged the following plans with and into the Manitowoc Retirement Savings Plan on December 31, 2009: (1) The Manitowoc Cranes, Inc. Hourly-Paid Employees' Deferred Profit-Sharing Plan; (2) the Manitowoc Ice, Inc. Hourly-Paid Employees' Deferred Profit-Sharing Plan; and (3) the accounts of collectively bargained participants in the Enodis Corporation 401(k) Plan.

The Manitowoc Retirement Savings Plan allows employees to make both pre- and post-tax elective deferrals, subject to certain limitations under the Tax Code. The Company also has the right to make the following additional contributions: (1) a matching contribution based upon individual employee deferrals; and (2) an additional discretionary or fixed Company contribution. Each participant in the Manitowoc Retirement Savings Plan is allowed to direct the investment of that participant's account

among a diverse mix of investment funds, including a Company stock alternative. To the extent that any funds are invested in Company stock, that portion of the Manitowoc Retirement Savings Plan is an ESOP.

The Company's executives are not eligible to participate in the Manitowoc Retirement Savings Plan. Company contributions to the plans are based upon formulas contained in the plans. Total costs incurred under these plans were \$1.9 million, \$3.2 million and \$6.1 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Manitowoc Deferred Compensation Plan The Manitowoc Deferred Compensation Plan is a non-tax-qualified supplemental deferred compensation plan for highly compensated and key management employees and for directors. On December 31, 2009, the Company merged the Enodis Corporation Supplemental Executive Retirement Plan, another defined contribution deferred compensation plan, with and into the Manitowoc Deferred Compensation Plan. The Company maintains the Manitowoc Deferred Compensation Plan to allow eligible individuals to save for retirement in a tax-efficient manner despite Tax Code restrictions that would otherwise impair their ability to do so under the Manitowoc 401(k) Retirement Plan. The Manitowoc Deferred Compensation Plan also assists the Company in retaining those key employees and directors.

The Manitowoc Deferred Compensation Plan accounts are credited with: (1) elective deferrals made at the request of the individual participant; and/or (2) a discretionary Company contribution for each individual participant. Although unfunded within the meaning of the Tax Code, the Manitowoc Deferred Compensation Plan utilizes a rabbi trust to hold assets intended to satisfy the Company's corresponding future benefit obligations. Each participant in the Manitowoc Deferred Compensation Plan is credited with interest based upon individual elections from amongst a diverse mix of investment funds that are intended to reflect investment funds similar to those offered under the Manitowoc 401(k) Retirement Plan, including Company stock. Participants do not receive preferential or above-market rates of return under the Manitowoc Deferred Compensation Plan.

Plan participants are able to direct deferrals and Company matching contributions into two separate investment programs, Program A and Program B.

The investment assets in Program A and B are held in two separate Deferred Compensation Plans, which restrict the Company's use and access to the funds, but which are also subject to the claims of the Company's general creditors in rabbi trusts. Program A invests solely in the Company's stock; dividends paid on the Company's stock are automatically reinvested; and all distributions must be made in Company stock. Program B offers a variety of investment options but does not include Company stock as an investment option. All distributions from Program B must be made in cash. Participants cannot transfer assets between programs.

Program A is accounted for as a plan that does not permit diversification. As a result, the Company stock held by Program A is classified in equity in a manner similar to accounting for treasury stock. The deferred compensation obligation is classified as an equity instrument. Changes in the fair value of the Company's stock and the compensation obligation are not recognized. The asset and obligation for Program A were both \$0.0 million at December 31, 2016 and \$1.0 million at December 31, 2015. These amounts are offset in the Consolidated Statements of Equity.

Program B is accounted for as a plan that permits diversification. As a result, the assets held by Program B are classified as an asset in the Consolidated Balance Sheets and changes in the fair value of the assets are recognized in earnings. The deferred compensation obligation is classified as a liability in the Consolidated Balance Sheets and adjusted, with a charge or credit to compensation cost, to reflect changes in the fair value of the obligation. The assets, which are included in other non-current assets, and obligation, which are included in other non-current liabilities, were both \$11.3 million at December 31, 2016 and \$15.2 million at December 31, 2015. There was no net impact on the Consolidated Statements of Operations for the years ended December 31, 2016, 2015 and 2014.

Pension, Postretirement Medical and Other Benefit Plans The Company provides certain pension, health care and death benefits for eligible retirees and their dependents. The pension benefits are funded, while the health care and death benefits are not funded but are paid as incurred. Eligibility for coverage is based on meeting certain years of service and retirement qualifications. These benefits may be subject to deductibles, co-payment provisions, and other limitations. The Company has reserved the right to modify these benefits. As of December 31, 2010, all of the remaining United States defined benefit plans were merged into a single plan: the Manitowoc U.S. Pension Plan. All merged plans had benefit accruals frozen prior to merger of plan.

The Manitowoc U.S. Pension Plan was split into the Manitowoc U.S. Pension Plan and the Manitowoc Foodservice Pension Plan as of December 31, 2015, and the plan obligations and assets associated with MFS were transferred to the MFS legal entity as of that date. For accounting purposes, the plan obligation, assets, and costs associated with the Manitowoc Foodservice Pension Plan are included in the results of operations of the Company until the Spin-Off date.

In addition to the Manitowoc U.S. Pension Plan, the Company also maintains defined benefit plans which are sponsored directly by the Company or its subsidiaries and offered only to employees or retirees of specific subsidiaries (“Direct Plans”). The plan obligation, assets, and costs associated with Direct Plans related to MFS are presented as discontinued operations in the consolidated financial statements. As of December 31, 2015, the funded status of the MFS Direct Plans of \$32.5 million was recognized in liabilities of discontinued operations. The tables below are inclusive of the plan obligation, assets, and cost associated with the MFS Direct Plans through the Spin-Off.

The components of period benefit costs for the years ended December 31, 2016, 2015 and 2014 are as follows:

(in millions)	US Pension Plans			Non-US Pension Plans			Postretirement Health and Other		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Service cost - benefits earned during the year	\$ —	\$ —	\$ —	\$ 1.7	\$ 2.6	\$ 2.4	\$ 0.3	\$ 0.4	\$ 0.4
Interest cost of projected benefit obligation	6.8	9.4	10.3	2.5	8.9	11.3	1.7	2.0	2.1
Expected return on assets	(5.7)	(9.0)	(9.5)	(1.8)	(7.4)	(9.4)	—	—	—
Amortization of prior service cost	—	—	—	0.1	0.1	0.1	—	—	(0.3)
Amortization of actuarial net loss (gain)	3.6	5.1	2.9	1.0	2.3	1.5	—	0.1	(0.1)
Curtailement gain recognized	—	—	—	—	—	—	—	—	—
Net periodic benefit cost	<u>\$ 4.7</u>	<u>\$ 5.5</u>	<u>\$ 3.7</u>	<u>\$ 3.5</u>	<u>\$ 6.5</u>	<u>\$ 5.9</u>	<u>\$ 2.0</u>	<u>\$ 2.5</u>	<u>\$ 2.1</u>
Weighted average assumptions:									
Discount rate	4.5%	4.1%	4.9%	2.9%	3.3%	4.3%	4.2%	3.7%	4.5%
Expected return on plan assets	5.5%	5.8%	6.0%	4.0%	3.6%	4.5%	N/A	N/A	N/A
Rate of compensation increase	N/A	N/A	N/A	2.4%	3.9%	4.3%	N/A	1.5%	3.0%

The prior service costs are amortized on a straight-line basis over the average remaining service period of active participants. Gains and losses in excess of 10% of the greater of the benefit obligation and the market-related value of assets are amortized over the average remaining service period of active participants.

To develop the expected long-term rate of return on assets assumptions, the Company considered the historical returns and future expectations for returns in each asset class, as well as targeted asset allocation percentages within the pension portfolio.

The following is a reconciliation of the changes in benefit obligation, the changes in plan assets, and the funded status as of December 31, 2016 and 2015 :

(in millions)	US Pension Plans		Non-US Pension Plans		Postretirement Medical and Other	
	2016	2015	2016	2015	2016	2015
Change in Benefit Obligation						
Benefit obligation, beginning of year	\$ 218.5	\$ 235.9	\$ 252.5	\$ 279.5	\$ 51.8	\$ 57.0
Distribution of MFS	(62.4)	—	(170.4)	—	(10.1)	—
Service cost	—	—	1.7	2.6	0.3	0.4
Interest cost	6.8	9.4	2.5	8.9	1.7	2.0
Participant contributions	—	—	—	0.1	1.9	2.4
Medicare subsidies received	—	—	—	—	0.2	0.2
Plan settlements	—	—	—	—	—	—
Net transfer out	—	—	—	(0.3)	—	—
Actuarial (gain) loss	0.9	(15.2)	11.0	(9.7)	1.8	(2.0)
Currency translation adjustment	—	—	(9.9)	(15.4)	—	(0.2)
Benefits paid	(8.2)	(11.6)	(4.6)	(13.2)	(6.0)	(8.0)
Benefit obligation, end of year	\$ 155.6	\$ 218.5	\$ 82.8	\$ 252.5	\$ 41.6	\$ 51.8
Change in Plan Assets						
Fair value of plan assets, beginning of year	\$ 143.9	\$ 160.0	\$ 196.9	\$ 214.0	\$ —	\$ —
Distribution of MFS	(34.1)	—	(147.8)	—	—	—
Actual return on plan assets	6.4	(5.8)	2.7	1.5	—	—
Employer contributions	0.6	1.3	2.2	5.1	3.9	5.4
Participant contributions	—	—	—	0.1	1.9	2.4
Medicare subsidies received	—	—	—	—	0.2	0.2
Currency translation adjustment	—	—	(7.6)	(10.3)	—	—
Net transfer out	—	—	—	(0.3)	—	—
Benefits paid	(8.2)	(11.6)	(4.6)	(13.2)	(6.0)	(8.0)
Fair value of plan assets, end of year	108.6	143.9	41.8	196.9	—	—
Funded status	\$ (47.0)	\$ (74.6)	\$ (41.0)	\$ (55.6)	\$ (41.6)	\$ (51.8)
Amounts recognized in the Consolidated Balance sheet at December 31						
Pension asset	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Pension obligation	(47.0)	(74.6)	(41.0)	(55.6)	—	—
Postretirement medical and other benefit obligations	—	—	—	—	(41.6)	(51.8)
Net amount recognized	\$ (47.0)	\$ (74.6)	\$ (41.0)	\$ (55.6)	\$ (41.6)	\$ (51.8)
Weighted-Average Assumptions						
Discount rate	4.2%	4.5%	2.1%	3.5%	3.8%	4.1%
Expected return on plan assets	5.5%	5.8%	4.0%	3.6%	N/A	N/A
Rate of compensation increase	N/A	N/A	2.4%	3.9%	N/A	1.5%

The Company prepares its discount rates with advice from an independent third party. The Company uses different discount rates for each plan depending on the plan jurisdiction, the demographics of participants and the expected timing of benefit payments. For the qualified U.S. pension plan and postretirement medical plans, the Company uses a discount rate calculated based on an appropriate mix of high quality corporate bonds. For the non-U.S. pension and postretirement plans, the Company consistently uses the relevant country specific benchmark indices for determining the various discount rates.

Amounts recognized in accumulated other comprehensive income as of December 31, 2016 and 2015, consist of the following:

(in millions)	Pensions		Postretirement Medical and Other	
	2016	2015	2016	2015
Net actuarial gain (loss)	\$ (65.1)	\$ (113.5)	\$ (5.1)	\$ (3.8)
Prior service credit	(0.6)	(0.7)	—	—
Total amount recognized	\$ (65.7)	\$ (114.2)	\$ (5.1)	\$ (3.8)

The amounts in accumulated other comprehensive income that are expected to be recognized as components of net periodic benefit cost during the next fiscal year are \$4.8 million for the pension plan and \$0.1 million for the postretirement medical and other plans.

For measurement purposes, a 6.2% annual rate of increase in the per capita cost of covered health care benefits was assumed for 2016. The rate was assumed to decrease gradually to 4.5% until 2038 and remain at that level thereafter. Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. The following table summarizes the sensitivity of our December 31, 2016 retirement obligations and 2016 retirement benefit costs of our plans to changes in the key assumptions used to determine those results (in millions):

Change in assumption:	Estimated increase (decrease) in 2017 pension cost	Estimated increase (decrease) in Projected Benefit Obligation for the year ended December 31, 2016	Estimated increase (decrease) in 2017 Other Postretirement Benefit costs	Estimated increase (decrease) in Other Postretirement Benefit Obligation for the year ended December 31, 2016
0.50% increase in discount rate	\$ (0.8)	\$ (13.6)	\$ —	\$ (1.5)
0.50% decrease in discount rate	0.9	14.9	0.1	1.6
0.50% increase in long-term return on assets	(0.7)	N/A	N/A	N/A
0.50% decrease in long-term return on assets	0.7	N/A	N/A	N/A
1% increase in medical trend rates	N/A	N/A	0.7	3.7
1% decrease in medical trend rates	N/A	N/A	(0.3)	(3.3)

It is reasonably possible that the estimate for future retirement and medical costs may change in the near future due to changes in the health care environment or changes in interest rates that may arise. Presently, there is no reliable means to estimate the amount of any such potential changes.

The weighted-average asset allocations of the U.S. pension plans at December 31, 2016 and 2015, by asset category are as follows:

	2016	2015
Equity	25.0%	24.5%
Fixed income	74.4%	74.8%
Other	0.6%	0.7%
	100.0%	100.0%

The weighted-average asset allocations of the Non-U.S. pension plans at December 31, 2016 and 2015, by asset category are as follows:

	2016	2015
Equity	33.7%	16.2%
Fixed income	31.1%	29.2%
Other	35.2%	54.6%
	100.0%	100.0%

The Board of Directors has established the Retirement Plan Committee (the “Committee”) to manage the operations and administration of all benefit plans and related trusts. The Committee is committed to diversification to reduce the risk of large losses. On a quarterly basis, the Committee reviews progress toward achieving the pension plans’ and individual managers’ performance objectives.

Investment Strategy The overall objective of the Company's pension assets is to earn a rate of return over time to satisfy the benefit obligations of the pension plans and to maintain sufficient liquidity to pay benefits and address other cash requirements of the pension fund. Specific investment objectives for our long-term investment strategy include reducing the volatility of pension assets relative to pension liabilities, achieving a competitive, total investment return, achieving diversification between and within asset classes and managing other risks. Investment objectives for each asset class are determined based on specific risks and investment opportunities identified.

The Company reviews its long-term, strategic asset allocations annually. The Company uses various analytics to determine the optimal asset mix and consider plan liability characteristics, liquidity characteristics, funding requirements, expected rates of return and the distribution of returns. The Company identifies investment benchmarks for the asset classes in the strategic asset allocation that are market-based and investable where possible.

Actual allocations to each asset class vary from target allocations due to periodic investment strategy changes, market value fluctuations, the length of time it takes to fully implement investment allocation positions and the timing of benefit payments and contributions. The asset allocation is monitored and rebalanced monthly.

The actual allocations for the pension assets at December 31, 2016 , and target allocations by asset class, are as follows:

	Target Allocations		Weighted Average Asset Allocations	
	U.S. Plans	International Plans	U.S. Plans	International Plans
Equity Securities	25%	0 - 25%	25.0%	33.7%
Debt Securities	75%	0 - 100%	74.4%	31.1%
Other	—%	0 - 100%	0.6%	35.2%

Risk Management In managing the plan assets, we review and manage risk associated with funded status risk, interest rate risk, market risk, counterparty risk, liquidity risk and operational risk. Liability management and asset class diversification are central to our risk management approach and are integral to the overall investment strategy. Further, asset classes are constructed to achieve diversification by investment strategy, by investment manager, by industry or sector and by holding. Investment manager guidelines for publicly traded assets are specified and are monitored regularly.

Fair Value Measurements The following table presents our plan assets using the fair value hierarchy as of December 31, 2016 and 2015 . The fair value hierarchy has three levels based on the reliability of the inputs used to determine fair value. Level 1 refers to fair values determined based on quoted prices in active markets for identical assets. Level 2 refers to fair values estimated using significant other observable inputs, and Level 3 includes fair values estimated using significant non-observable inputs.

December 31, 2016					
Assets (in millions)	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)	Total	
Cash	\$ 0.9	\$ —	\$ —	\$ 0.9	
Insurance group annuity contracts	—	—	14.5	14.5	
Common/collective trust funds — Government debt	—	—	—	—	
Common/collective trust funds — Corporate and other non-government debt	—	38.4	—	38.4	
Common/collective trust funds — Government, corporate and other non- government debt	—	55.3	—	55.3	
Common/collective trust funds — Corporate equity	—	41.3	—	41.3	
Common/collective trust funds — Customized strategy	—	—	—	—	
Total	\$ 0.9	\$ 135.0	\$ 14.5	\$ 150.4	

December 31, 2015					
Assets (in millions)	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)	Total	
Cash	\$ 2.0	\$ —	\$ —	\$ 2.0	
Insurance group annuity contracts	—	—	106.5	106.5	
Common/collective trust funds — Government debt	—	—	—	—	
Common/collective trust funds — Corporate and other non-government debt	—	60.6	—	60.6	
Common/collective trust funds — Government, corporate and other non-government debt	—	98.7	—	98.7	
Common/collective trust funds — Corporate equity	—	67.1	—	67.1	
Common/collective trust funds — Customized strategy	—	5.9	—	5.9	
Total	\$ 2.0	\$ 232.3	\$ 106.5	\$ 340.8	

Cash equivalents and other short-term investments, which are used to pay benefits, are primarily held in registered money market funds which are valued using a market approach based on the quoted market prices of identical instruments. Other cash equivalent and short-term investments are valued daily by the fund using a market approach with inputs that include quoted market prices for similar instruments.

Insurance group annuity contracts are valued at the present value of the future benefit payments owed by the insurance Company to the Plans' participants.

Common/collective funds are typically common or collective trusts valued at their net asset values (NAVs) that are calculated by the investment manager or sponsor of the fund and have daily or monthly liquidity.

A reconciliation of the fair values measurements of plan assets using significant unobservable inputs (Level 3) from the beginning of the year to the end of the year is as follows:

(in millions)	Insurance Contracts Year Ended December 31,			
	2016		2015	
Beginning Balance	\$	106.5	\$	117.7
Distribution of MFS		(89.9)		—
Actual return on assets		2.0		1.0
Benefit payments		(1.4)		(6.7)
Foreign currency impact		(2.7)		(5.5)
Ending Balance	\$	14.5	\$	106.5

The expected 2017 contributions for the U.S. pension plans are as follows: the minimum contribution for 2017 is \$4.7 million ; and no planned discretionary or non-cash contributions. The expected 2017 contributions for the non-U.S. pension plans are as follows: the minimum contribution for 2017 is \$1.4 million ; and no planned discretionary or non-cash contributions. Expected Company paid claims for the postretirement medical and life insurance plans are \$3.6 million for 2017. Projected benefit payments from the plans as of December 31, 2016 are estimated as follows:

(in millions)	U.S Pension Plans	Non-U.S. Pension Plans	Postretirement Health and Other
2017	\$ 9.4	\$ 2.8	\$ 3.6
2018	9.7	2.7	3.8
2019	9.9	3.1	3.8
2020	10.1	3.6	3.8
2021	10.1	3.6	3.8
2022 — 2026	50.1	20.0	15.6

The fair value of plan assets for which the accumulated benefit obligation is in excess of the plan assets as of December 31, 2016 and 2015 is as follows:

(in millions)	U.S Pension Plans		Non U.S. Pension Plans	
	2016	2015	2016	2015
Projected benefit obligation	\$ 155.6	\$ 218.5	\$ 79.1	\$ 252.5
Accumulated benefit obligation	155.6	218.5	76.2	244.9
Fair value of plan assets	108.6	143.9	38.4	196.9

The accumulated benefit obligation for all U.S. pension plans as of December 31, 2016 and 2015 was \$155.6 million and \$218.5 million , respectively. The accumulated benefit obligation for all non-U.S. pension plans as of December 31, 2016 and 2015 was \$76.2 million and \$244.9 million , respectively.

The measurement date for all plans is December 31, 2016 .

The Company also maintains a target benefit plan for certain executive officers of the Company. Expenses related to the plan in the amount of \$3.2 million , \$2.9 million and \$2.4 million were recorded in 2016 , 2015 and 2014 , respectively. Amounts accrued as of December 31, 2016 and 2015 related to this plan were \$21.4 million and \$26.9 million , respectively.

22. Leases

The Company leases various property, plant and equipment. Terms of the leases vary, but generally require the Company to pay property taxes, insurance premiums, and maintenance costs associated with the leased property. Rental expense attributed to operating leases was \$23.1 million , \$16.8 million and \$20.9 million in 2016 , 2015 and 2014 , respectively.

Future minimum rental obligations under non-cancelable operating leases as of December 31, 2016 are payable as follows:

(in millions)	
2017	\$ 19.9
2018	14.4
2019	12.7
2020	11.7
2021	11.2

Thereafter

27.5

Total	\$	97.4
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23. Quarterly Financial Data (Unaudited)

The following tables present select quarterly financial data for 2016 and 2015 :

As adjusted for impact of change to FIFO	2016				2015			
(in millions, except per share data)	First	Second	Third	Fourth	First	Second	Third	Fourth
Statements of operations:								
Net sales	\$ 427.4	\$ 457.7	\$ 349.8	\$ 378.2	\$ 406.7	\$ 477.7	\$ 438.2	\$ 543.1
Cost of sales	347.7	370.4	309.0	332.7	329.3	379.9	369.4	454.9
Gross profit	79.7	87.3	40.8	45.5	77.4	97.8	68.8	88.2
Operating income (loss)	0.8	3.9	(134.2)	(23.8)	(6.3)	17.1	(9.3)	(13.9)
(Loss) income from continuing operations before taxes	(85.0)	(4.3)	(144.2)	(34.6)	(30.9)	(5.1)	(36.8)	(38.2)
Provision (benefit) for taxes on income	107.7	0.7	(5.3)	(2.6)	(8.7)	(0.7)	(6.4)	(25.3)
Loss from continuing operations	(192.7)	(5.0)	(138.9)	(32.0)	(22.2)	(4.4)	(30.4)	(12.9)
(Loss) income from discontinued operations, net of income taxes	(3.2)	(0.8)	(1.8)	(1.4)	15.0	29.6	34.4	56.4
Net (loss) income	(195.9)	(5.8)	(140.7)	(33.4)	(7.2)	25.2	4.0	43.5
Basic (loss) income per share:								
Loss from continuing operations	\$ (1.41)	\$ (0.04)	\$ (1.00)	\$ (0.23)	\$ (0.16)	\$ (0.03)	\$ (0.22)	\$ (0.09)
(Loss) income from discontinued operations	(0.02)	(0.01)	(0.01)	(0.01)	0.11	0.22	0.25	0.41
(Loss) income per share	\$ (1.43)	\$ (0.04)	\$ (1.02)	\$ (0.24)	\$ (0.05)	\$ 0.19	\$ 0.03	\$ 0.32
Diluted (loss) income per share:								
Loss from continuing operations	\$ (1.41)	\$ (0.04)	\$ (1.00)	\$ (0.23)	\$ (0.16)	\$ (0.03)	\$ (0.22)	\$ (0.09)
(Loss) income from discontinued operations	(0.02)	(0.01)	(0.01)	(0.01)	0.11	0.22	0.25	0.41
(Loss) income per share	\$ (1.43)	\$ (0.04)	\$ (1.02)	\$ (0.24)	\$ (0.05)	\$ 0.19	\$ 0.03	\$ 0.32
Dividends per common share	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 0.08
Cash flows from operations:								
Net (loss) income	\$ (195.9)	\$ (5.8)	\$ (140.7)	\$ (33.4)	\$ (7.2)	\$ 25.2	\$ 4.0	\$ 43.5
Deferred income taxes	110.3	1.1	2.6	(12.6)	33.9	0.7	0.7	(39.7)
Change in inventories, net	(33.7)	(6.2)	7.5	85.1	(54.3)	(46.2)	(6.7)	100.0

Historical (in millions, except per share data)	2016				2015			
	First	Second	Third	Fourth	First	Second	Third	Fourth
Statements of operations:								
Net sales	\$ 427.4	\$ 457.7	\$ 349.8	\$ 378.2	\$ 406.7	\$ 477.7	\$ 438.2	\$ 543.1
Cost of sales	345.5	369.5	308.3	332.7	331.3	382.8	368.3	454.6
Gross profit	81.9	88.2	41.5	45.5	75.4	94.9	69.9	88.5
Operating income (loss)	3.0	4.8	(133.5)	(23.8)	(8.3)	14.2	(8.2)	(13.6)
(Loss) income from continuing operations before taxes	(82.8)	(3.4)	(143.5)	(34.6)	(32.9)	(8.0)	(35.7)	(37.9)
Provision (benefit) for taxes on income	121.5	0.7	(5.3)	(2.6)	(9.5)	(1.7)	(6.1)	(25.3)
Loss from continuing operations	(204.3)	(4.1)	(138.2)	(32.0)	(23.4)	(6.3)	(29.6)	(12.6)
(Loss) income from discontinued operations, net of income taxes	(3.2)	(0.8)	(1.8)	(1.4)	15.0	29.6	34.4	56.4
Net (loss) income	(207.5)	(4.9)	(140.0)	(33.4)	(8.4)	23.3	4.8	43.8
Basic (loss) income per share:								
Loss from continuing operations	\$ (1.50)	\$ (0.03)	\$ (1.00)	\$ (0.23)	\$ (0.17)	\$ (0.05)	\$ (0.22)	\$ (0.09)
(Loss) income from discontinued operations	(0.02)	(0.01)	(0.01)	(0.01)	0.11	0.22	0.25	0.41
(Loss) income per share	\$ (1.52)	\$ (0.04)	\$ (1.01)	\$ (0.24)	\$ (0.06)	\$ 0.17	\$ 0.04	\$ 0.32
Diluted (loss) income per share:								
(Loss) income from continuing operations	\$ (1.50)	\$ (0.03)	\$ (1.00)	\$ (0.23)	\$ (0.17)	\$ (0.05)	\$ (0.22)	\$ (0.09)
(Loss) income from discontinued operations	(0.02)	(0.01)	(0.01)	(0.01)	0.11	0.22	0.25	0.41
(Loss) income per share	\$ (1.52)	\$ (0.04)	\$ (1.01)	\$ (0.24)	\$ (0.06)	\$ 0.17	\$ 0.04	\$ 0.32
Dividends per common share	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 0.08
Cash flows from operations:								
Net (loss) income	\$ (207.5)	\$ (4.9)	\$ (140.0)	\$ (33.4)	\$ (8.4)	\$ 23.3	\$ 4.8	\$ 43.8
Deferred income taxes	124.1	1.1	2.6	(12.6)	33.1	(0.3)	1.0	(39.7)
Change in inventories, net	(35.9)	(7.1)	6.8	85.1	(52.3)	(43.3)	(7.8)	99.7

As discussed in Note 6, "Inventories," in the fourth quarter of 2016, the Company changed its method of inventory costing for certain inventory to the FIFO method from the LIFO method. The Company applied this change in method of inventory costing by retrospectively adjusting the prior period financial statements. The tables above present selected financial information "as adjusted for impact of change to FIFO" and "historical." Historical represents the results of operations prior to the change to FIFO, but after the classification of MFS to discontinued operations and adjustments to the annual periods discussed in Note 1 and adjustments to quarterly periods discussed in the paragraph below.

During the second quarter of 2016, the Company identified two adjustments to the previously issued financial statements for the three months ended March 31, 2016. In evaluating whether the Company's previously issued consolidated financial statements were materially misstated, the Company considered the guidance in Accounting Standards Codification ("ASC") Topic 250, "Accounting Changes and Error Corrections" and ASC Topic 250-10-S99-1, "Assessing Materiality." The Company determined that these errors were not material to the Company's prior interim period consolidated financial statements and therefore, amending the previously filed report was not required. However, the Company determined that the impact of the corrections would be too significant to record within the second quarter of 2016. As such, the revision for the corrections is reflected in the financial information of the first quarter of 2016 and 2015, as applicable. The adjustments are as follows:

- Adjustment related to accumulated other comprehensive loss ("AOCL"), whereby the Company had understated loss on debt extinguishment by \$4.3 million, overstated income tax expense by \$0.8 million, and understated loss from

continuing operations by \$3.5 million in the first quarter of 2016. The adjustment also resulted in an overstatement of AOCL and understatement of retained earnings by \$2.6 million as of March 31, 2016.

- Adjustment related to the classification of income tax expense between continuing operations and discontinued operations in the three months ended March 31, 2015, whereby the Company had understated the benefit for taxes on continuing operations and understated the income tax provision on discontinued operations by \$2.1 million .

During the fourth quarter of 2016, the Company identified an adjustment to the previously issued financial statements for the three months ended March 31, 2016, six months ended June 30, 2016, and nine months ended September 30, 2016, related to a non-cash reclassification between continuing and discontinued operations with the operating section of the Statement of Cash Flows in the three months ended March 31, 2016, whereby the change in accrued expenses and other liabilities and net cash used for operating activities of continuing operations was understated by \$16.2 million , and the net cash used for operating activities of discontinued operating activities was overstated by \$16.2 million . In evaluating whether the Company's previously issued consolidated financial statements were materially misstated, the Company considered the guidance in Accounting Standards Codification ("ASC") Topic 250, "Accounting Changes and Error Corrections" and ASC Topic 250-10-S99-1, "Assessing Materiality." The Company determined that these errors were not material to the Company's prior interim period consolidated financial statements and therefore, amending the previously filed reports was not required.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, have evaluated the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended ("the Exchange Act")) as of the end of the period covered by this report. Based on such evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, the Company's disclosure controls and procedures are effective in recording, processing, summarizing, and reporting, on a timely basis, information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act, and that such information is accumulated and communicated to the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely discussions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

The Company's 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). The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's internal control over financial reporting based on the framework in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, the Company's management has concluded that, as of December 31, 2016, the Company's internal control over financial reporting was effective.

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 the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2016, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Changes in Internal Control Over Financial Reporting

During the fourth quarter of 2016, there were no changes in our internal control over financial reporting that have materially affected, or are 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

The information required by this item is incorporated by reference from the sections of the 2017 Proxy Statement captioned “Section 16(a) Beneficial Ownership Reporting Compliance,” “Audit Committee” and “Election of Directors.” See also “Executive Officers of the Registrant” in Part I hereof, which is incorporated herein by reference.

The Company has a Global Ethics Policy and other policies relating to business conduct, that pertain to all employees, which can be viewed at the Company’s website (www.manitowoc.com). The Company has adopted a code of ethics that applies to the Company’s principal executive officer, principal financial officer, and controller, which is part of the Company’s Global Ethics Policy and other policies related to business conduct. Any amendments to the Global Ethics Policy, or information about any waivers granted to directors or executive officers with respect to the Global Ethics Policy will be posted on the Company’s website (www.manitowoc.com).

Item 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference from the sections of the 2017 Proxy Statement captioned “Non-Employee Director Compensation,” “Executive Compensation” and “Compensation Discussion and Analysis and Compensation Committee Report.”

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by this item is incorporated by reference from the sections of the 2017 Proxy Statement captioned “Ownership of Securities” and the subsection captioned “Equity Compensation Plans.”

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated by reference from the section of the 2017 Proxy Statement captioned “Governance of the Board and its Committees — Governance of the Company” and “Transaction with Related Persons.”

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated by reference from the section of the 2017 Proxy Statement captioned “Audit Committee Report.”

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this Report.

(1) Financial Statements:

The following Consolidated Financial Statements are filed as part of this report under Item 8, “Financial Statements and Supplementary Data.”

[Report of Independent Registered Public Accounting Firm](#)

[Consolidated Statements of Operations](#)

[Consolidated Statements of Comprehensive Income \(Loss\)](#)

[Consolidated Balance Sheets](#)

[Consolidated Statements of Cash Flows](#)

[Consolidated Statements of Equity](#)

[Notes to Consolidated Financial Statements](#)

(2) Financial Statement Schedule:

[Schedule II — Valuation and Qualifying Accounts](#)

<u>Schedule</u>	<u>Description</u>	<u>Filed Herewith</u>
II	Valuation and Qualifying Accounts	X

All other financial statement schedules not listed have been omitted since the required information is included in the Consolidated Financial Statements or the Notes thereto, or is not applicable or required under rules of Regulation S-X.

(b) Exhibits:

See Index to Exhibits immediately following the signature page of this report, which is incorporated herein by reference.

**THE MANITOWOC COMPANY, INC
AND SUBSIDIARIES**
Schedule II: Valuation and Qualifying Accounts
For The Years Ended December 31, 2016, 2015 and 2014
(dollars in millions)

	Balance at Beginning of Year	Charge to Costs and Expenses	Utilization of Reserve	Other, Primarily Impact of Foreign Exchange Rates	Balance at end of Year
Year End December 31, 2014					
Allowance for doubtful accounts	\$ 15.1	\$ 4.9	\$ (3.2)	\$ (1.4)	\$ 15.4
Deferred tax valuation allowance	\$ 100.6	\$ 4.2	\$ (9.8)	\$ (9.8)	\$ 85.2
Year End December 31, 2015					
Allowance for doubtful accounts	\$ 15.4	\$ 2.5	\$ (3.5)	\$ (1.6)	\$ 12.8
Deferred tax valuation allowance	\$ 85.2	\$ 11.4	\$ (1.9)	\$ (8.2)	\$ 86.5
Year End December 31, 2016					
Allowance for doubtful accounts	\$ 12.8	\$ 1.0	\$ (2.9)	\$ 0.2	\$ 11.1
Deferred tax valuation allowance	\$ 86.5	\$ 199.2	\$ (4.1)	\$ (12.0)	\$ 269.6

Item 16. FORM 10-K SUMMARY

None.

SIGNATURES

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

Date: February 24, 2017

The Manitowoc Company, Inc.

(Registrant)

/s/ Barry L. Pennypacker

Barry L. Pennypacker
President and Chief Executive Officer

/s/ David J. Antoniuk

David J. Antoniuk
Senior Vice President and Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

/s/ Barry L. Pennypacker

Barry L. Pennypacker, President and Chief Executive Officer

February 24, 2017

/s/ David J. Antoniuk

David J. Antoniuk, Senior Vice President and Chief Financial Officer

February 24, 2017

/s/ Kevin R. Mineard

Kevin R. Mineard, Vice President, Principal Accounting Officer and Corporate Controller

February 24, 2017

/s/ Jose Maria Alapont

Jose Maria Alapont, Director

February 24, 2017

/s/ Robert G. Bohn

Robert G. Bohn, Director

February 24, 2017

/s/ Donald M. Condon, Jr.

Donald M. Condon, Jr., Director

February 24, 2017

/s/ Anne M. Cooney

Anne M. Cooney, Director

February 24, 2017

/s/ Kenneth W. Krueger

Kenneth W. Krueger, Chairman of the Board

February 24, 2017

/s/ Jesse A. Lynn

Jesse A. Lynn, Director

February 24, 2017

/s/ C. David Myers

C. David Myers, Director

February 24, 2017

THE MANITOWOC COMPANY, INC.
ANNUAL REPORT ON FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2016
INDEX TO EXHIBITS

<u>Exhibit No.</u>	<u>Description</u>	<u>Filed/Furnished Herewith</u>
2.1	Mater Separation and Distribution Agreement, dated March 4, 2016, between The Manitowoc Company, Inc. and Manitowoc Foodservice, Inc. (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, dated March 3, 2016.	
3.1	Amended and Restated Articles of Incorporation, effective as of May 7, 2013 (filed as Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed on August 2, 2013 and incorporated herein by reference).	
3.2	Restated By-laws (filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed on January 29, 2015 and incorporated herein by reference).	
4.1 (a)	Rights Agreement dated March 21, 2007 between the Registrant and Computershare Trust Company, N.A. (filed as Exhibit 4.1 to the Company's Current Report on Form 8-K dated as of March 21, 2007 and incorporated herein by reference). (Expired according to its terms, as amended.)	
4.1(b)	Amendment, dated December 27, 2016, to the Rights Agreement, dated as of March 21, 2007, by and between The Manitowoc Company, Inc. and Computershare Trust Company, N.A. (filed as Exhibit 4.1 to the Company's Current Report on Form 8-K dated as December 27, 2016 and incorporated herein by reference). (Expired according to its terms.)	
4.2	Indenture, dated as of February 8, 2010, between The Manitowoc Company, Inc. and Wells Fargo Bank, National Association, a national banking association, as Trustee (filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on February 10, 2010 and incorporated herein by reference).	
4.3(a)	Indenture, dated February 18, 2016, between MTW Cranes Escrow Corp. and Wells Fargo Bank, National Association, as trustee and collateral agent (the "2016 Indenture") (incorporated by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K, dated February 18, 2016).	
4.3(b)	Form of 12.75% Senior Secured Second Lien Note due 2021 (included as Exhibit A to the 2016 Indenture) (incorporated by reference to Exhibit 4.4 to the Company's Current Report on Form 8-K, dated February 18, 2016).	
4.3 (c)	First Supplemental Indenture, dated March 3, 2016, by and among MTW Cranes Escrow Corp., The Manitowoc Company, Inc., the guarantors party thereto and Wells Fargo Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, dated March 3, 2016).	
4.4	Articles III, V, and VIII of the Amended and Restated Articles of Incorporation (see Exhibit 3.1 above).	
10.1**	The Manitowoc Company, Inc. Deferred Compensation Plan, as amended and restated through December 31, 2008 (filed as exhibit 10.1 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008 and incorporated herein by reference).	

- 10.2** Short-Term Incentive Plan, as amended, effective January 1, 2013. (filed as Exhibit 10.2(a) to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2012 and incorporated herein by reference).
- 10.3(a)** Form of Contingent Employment Agreement between The Manitowoc Company, Inc. and executive officers hired beginning in fiscal 2015 (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on December 29, 2015 and incorporated herein by reference).
- 10.3(b)** Form of Contingent Employment Agreement between The Manitowoc Company, Inc. and the following executive officers of the Company: Thomas G. Musial and Larry J. Weyers. (filed as Exhibit 10.3(b) to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2012 and incorporated herein by reference).
- 10.4** Form of Indemnity Agreement between the Company and each of the directors, executive officers and certain other employees of the Company (filed as Exhibit 10(b) to the Company's Annual Report on Form 10-K for the fiscal year ended July 1, 1989 and incorporated herein by reference).
- 10.5** Supplemental Retirement Plan, as amended and restated through December 31, 2008 (filed as Exhibit 10.6(c) to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008 and incorporated herein by reference).
- 10.6** The Manitowoc Company, Inc. 2003 Incentive Stock and Awards Plan, as amended, effective May 1, 2012 (filed as Exhibit 10.7(c) to the Company's Proxy Statement for its 2012 annual meeting, filed on March 22, 2012 and incorporated herein by reference).
- 10.7** The Manitowoc Company, Inc. 2004 Non-Employee Director Stock and Awards Plan, as amended on December 17, 2008, (filed as Exhibit 10.7(e) to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008 and incorporated herein by reference).
- 10.8** The Manitowoc Company, Inc. Incentive Stock Option Agreement with Vesting Provisions, applicable to the Company's 2003 Incentive Stock and Awards Plan (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated as of February 25, 2005 and incorporated herein by reference).
- 10.9** The Manitowoc Company, Inc. Non-Qualified Stock Option Agreement with Vesting Provisions, applicable to the Company's 2003 Incentive Stock and Awards Plan (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K dated as of February 25, 2005 and incorporated herein by reference).
- 10.10(a)** The Manitowoc Company, Inc. Award Agreement for Restricted Stock Awards under the Company's 2003 Incentive Stock and Awards Plan, amended February 27, 2007 (filed as Exhibit 10.10 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2004 and incorporated herein by reference).
- 10.10(b)** The Manitowoc Company, Inc. Performance Share Award Agreement, applicable to the Company's 2003 Incentive Stock and Awards Plan (filed as Exhibit 10.10 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2010 and incorporated herein by reference).

- 10.11** The Manitowoc Company, Inc. Award Agreement for the 2004 Non-employee Director Stock and Awards Plan, as amended effective May 3, 2006 and February 27, 2007 (filed as Exhibit 10.11 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2006 and incorporated herein by reference).
- 10.12** The Manitowoc Company, Inc. 2013 Omnibus Incentive Plan, as amended, (filed as Exhibit 10.8 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2016 and incorporated herein by reference).
- 10.12(a)** Form of Performance Share Award Agreement under The Manitowoc Company, Inc. 2013 Omnibus Incentive Plan (filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on August 2, 2013 and incorporated herein by reference).
- 10.12(b)** Form of Restricted Stock Award Agreement for Directors under The Manitowoc Company, Inc. 2013 Omnibus Incentive Plan (filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on August 2, 2013 and incorporated herein by reference).
- 10.12(c)** Form of Restricted Stock Award Agreement for Employees under The Manitowoc Company, Inc. 2013 Omnibus Incentive Plan (filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on August 2, 2013 and incorporated herein by reference).
- 10.12(d)** Form of Restricted Stock Unit Award Agreement for Directors under The Manitowoc Company, Inc. 2013 Omnibus Incentive Plan (filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q filed on August 2, 2013 and incorporated herein by reference).
- 10.12(e)** Form of Restricted Stock Unit Award Agreement for Employees under The Manitowoc Company, Inc. 2013 Omnibus Incentive Plan (filed as Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q filed on August 2, 2013 and incorporated herein by reference).
- 10.12(f)** Form of Non-Qualified Stock Option Award Agreement under The Manitowoc Company, Inc. 2013 Omnibus Incentive Plan (filed as Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q filed on August 2, 2013 and incorporated herein by reference).
- 10.12(g)** Form of Incentive Award Agreement under The Manitowoc Company, Inc. 2013 Omnibus Incentive Plan (filed as Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q filed on August 2, 2013 and incorporated herein by reference).
- 10.13** The Manitowoc Company, Inc. Severance Pay Plan adopted by the Board of Directors as of May 4, 2009 (filed as Exhibit 10.13 to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2009, and incorporated herein by reference.)
- 10.14** Form of Retention Award Agreement, dated April 8, 2015 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 13, 2015 and incorporated herein by reference).

- 10.15** Offer Letter, accepted as of December 28, 2015, by and between Barry L. Pennypacker and The Manitowoc Company, Inc. (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 29, 2015 and incorporated herein by reference).
- 10.16** Offer letter, accepted as of April 27, 2016, by and between David J. Antoniuk and The Manitowoc Company, Inc. (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated April 27, 2016 and incorporated herein by reference).
- 10.17** Severance Agreement and Release, dated June 30, 2016, by and between The Manitowoc Company, Inc. and Carl J. Laurino (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 30, 2016 and incorporated herein by reference).
- 10.18** Severance Agreement and Release, dated January 4, 2016, by and between The Manitowoc Company, Inc. and Glen E. Tellock (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 6, 2016 and incorporated herein by reference).
- 10.19 Note Purchase Agreement, dated February 8, 2016, between MTW Cranes Escrow Corp., The Manitowoc Company, Inc., the guarantors named therein, and Goldman, Sachs & Co., for itself and on behalf of the several initial purchasers listed on Schedule 1 thereto (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K, dated February 5, 2016).
- 10.20 Transition Services Agreement, dated March 4, 2016, between The Manitowoc Company, Inc. and Manitowoc Foodservice, Inc. (incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K, dated March 3, 2016).
- 10.21 Tax Matters Agreement, dated March 4, 2016, between The Manitowoc Company, Inc. and Manitowoc Foodservice, Inc. (incorporated by reference to Exhibit 10.2 to the company's Current Report on Form 8-K, dated March 3, 2016).
- 10.22(a) Employee Matters Agreement, dated March 4, 2016, between The Manitowoc Company, Inc. and Manitowoc Foodservice, Inc. (incorporated by reference to Exhibit 10.3 to the company's Current Report on Form 8-K, dated March 3, 2016).
- 10.22(b) Amendment, dated March 28, 2016, to the Employee Matters Agreement, effective as of March 4, 2016, by and between The Manitowoc Company, Inc. and Manitowoc Foodservice, Inc. (incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K, dated March 28, 2016).
- 10.23 Intellectual Property Matters Agreement, dated March 4, 2016, between The Manitowoc Company, Inc. and Manitowoc Foodservice, Inc. (incorporated by reference to Exhibit 10.4 to the company's Current Report on Form 8-K, dated March 3, 2016).
- 10.24(a) Credit Agreement, dated March 3, 2016, among Wells Fargo Bank, National Association, as administrative agent, the financial institutions from time to time party thereto, as lenders, and The Manitowoc Company, Inc., Manitowoc Cranes, LLC, Grove U.S. L.L.C., and Manitowoc Crane Group Germany GmbH, as borrowers (incorporated by reference to Exhibit 10.5 to the company's Current Report on Form 8-K, dated March 3, 2016).

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10.24(b)	Amendment No. 1, dated October 31, 2016, to Credit Agreement, dated March 3, 2016, among Wells Fargo Bank, National Association, as administrative agent, the financial institutions from time to time party thereto, as lenders, and The Manitowoc Company, Inc., Manitowoc Cranes, LLC, Grove U.S. L.L.C., and Manitowoc Crane Group Germany GmbH, as borrowers (incorporated by reference to Exhibit 10.1 to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016).	
10.25(a)	Receivables Purchase Agreement, dated March 3, 2016, by and among Manitowoc Funding, LLC, as seller, The Manitowoc Company, Inc., as servicer, and Wells Fargo Bank, N.A., as purchaser and as agent (incorporated by reference to Exhibit 10.6 to the company's Current Report on Form 8-K, dated March 3, 2016).	
10.25(b)	Purchase Agreement, dated February 8, 2016, between MTW Cranes Escrow Corp., The Manitowoc Company, Inc., the guarantors named therein, and Goldman, Sachs & Co., for itself and on behalf of the several initial purchasers listed on Schedule 1 thereto (filed as Exhibit 10.3 to the Company's Current Report on Form 8-K filed on February 11, 2016 and incorporated herein by reference).	
11	Statement regarding computation of basic and diluted earnings per share (see Note 14, "Earnings Per Share" to the Consolidated Financial Statements included herein).	
18.1	Letter from PricewaterhouseCoopers LLC regarding change in accounting principles	X(1)
12.1	Statement of Computation of Ratio of Earnings to Fixed Charges	X(1)
21	Subsidiaries of The Manitowoc Company, Inc.	X(1)
23.1	Consent of PricewaterhouseCoopers LLP, the Company's Independent Registered Public Accounting Firm	X(1)
31	Rule 13a - 14(a)/15d - 14(a) Certifications	X(1)
32.1	Certification of CEO pursuant to 18 U.S.C. Section 1350	X(2)
32.2	Certification of CFO pursuant to 18 U.S.C. Section 1350	X(2)
101	The following materials from the Company's Annual Report on Form 10-K for the year ended December 31, 2015 formatted in Extensible Business Reporting Language (XBRL): (i) the Consolidated Statements of Income, (ii) the Consolidated Statements of Comprehensive Income (iii) the Consolidated Balance Sheets, (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statement of Equity and (vi) related notes.	X(1)

(1) Filed Herewith

(2) Furnished Herewith

** Management contracts and executive compensation plans and arrangements required to be filed as exhibits pursuant to item 15(c) of Form 10-K.

The Manitowoc Company, Inc.
Statement of Computation of Ratio of Earnings to Fixed Charges
(in millions, except ratio data)

	For the Year Ended December 31,				
	2016	2015	2014	2013	2012
(Loss) income from continuing operations before taxes (1)	\$ (268.1)	\$ (111.0)	\$ (20.4)	\$ 13.8	\$ (47.0)
Fixed charges	49.9	109.1	108.5	145.3	153.7
Total (loss) income available for fixed charges	\$ (218.2)	\$ (1.9)	\$ 88.1	\$ 159.1	\$ 106.7
Fixed charges:					
Interest expense	\$ 39.6	\$ 95.6	\$ 92.8	\$ 127.4	\$ 134.1
Amortization of deferred financing fees	2.2	4.2	4.4	7.0	8.2
Portion of rent deemed interest factor (2)	8.1	9.3	11.3	10.9	11.4
Total fixed charges	\$ 49.9	\$ 109.1	\$ 108.5	\$ 145.3	\$ 153.7
Ratio of (loss) income to fixed charges	*	**	***	1.1x	****

Notes for explanations:

(1) 2016 and 2015 amounts include the impact of non-cash impairment changes of \$96.9 million and \$15.3 million, respectively.

(2) One-third of all rent expense is deemed representative of the interest factor.

* The ratio coverage for the year ended December 31, 2016 was less than 1:1. The Company would have needed to generate additional earnings of \$268.1 million to achieve a ratio coverage of 1:1 for the year ended December 31, 2016.

** The ratio coverage for the year ended December 31, 2015 was less than 1:1. The Company would have needed to generate additional earnings of \$111.0 million to achieve a ratio coverage of 1:1 for the year ended December 31, 2015.

*** The ratio coverage for the year ended December 31, 2014 was less than 1:1. The Company would have needed to generate additional earnings of \$20.4 million to achieve a ratio coverage of 1:1 for the year ended December 31, 2014.

**** The ratio coverage for the year ended December 31, 2012 was less than 1:1. The Company would have needed to generate additional earnings of \$47.0 million to achieve a ratio coverage of 1:1 for the year ended December 31, 2012.

February 24, 2017

Board of Directors
The Manitowoc Company, Inc.
2400 South 44th Street
Manitowoc, WI 54220

Dear Directors:

We are providing this letter to you for inclusion as an exhibit to your Form 10-K filing pursuant to Item 601 of Regulation S-K.

We have audited the consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2016 and issued our report thereon dated February 24, 2017. Note 2 to the financial statements describes a change in accounting principle for the costing of certain inventory from the last-in first-out (LIFO) method to the first-in first-out (FIFO) method. It should be understood that the preferability of one acceptable method of accounting over another for inventory costing has not been addressed in any authoritative accounting literature, and in expressing our concurrence below we have relied on management's determination that this change in accounting principle is preferable. Based on our reading of management's stated reasons and justification for this change in accounting principle in the Form 10-K, and our discussions with management as to their judgment about the relevant business planning factors relating to the change, we concur with management that such change represents, in the Company's circumstances, the adoption of a preferable accounting principle in conformity with Accounting Standards Codification 250, *Accounting Changes and Error Corrections*.

Very truly yours,

/s/ PricewaterhouseCoopers LLP

Subsidiaries of
The Manitowoc Company, Inc. (WI)

1	Grove Europe Pension Trustees Limited	(United Kingdom)
2	Grove U.S. LLC	(Delaware)
3	Manitowoc (Bermuda) Ltd.	(Bermuda)
4	Manitowoc (Mauritius) Ltd.	(Mauritius)
5	Manitowoc (UK) Limited	(United Kingdom)
6	Manitowoc Asia Global Sourcing	(China)
7	Manitowoc Brasil Guindastes Ltda	(Brazil)
8	Manitowoc Company Foundation, The	(Michigan)
9	Manitowoc CP, Inc.	(Nevada)
10	Manitowoc Crane Companies, LLC (MCG)	(Wisconsin)
11	Manitowoc Crane Equipment (China) Co., Ltd.	(China)
12	Manitowoc Crane Group (Brazil)	(Brazil)
13	Manitowoc Crane Group (UK) Limited	(United Kingdom)
14	Manitowoc Crane Group Asia Pte Ltd	(Singapore)
15	Manitowoc Crane Group Australia Pty Ltd.	(Australia)
16	Manitowoc Crane Group Chile Limitada	(Chile)
17	Manitowoc Crane Group CIS	(Russia)
18	Manitowoc Crane Group Columbia, S.A.S.	(Columbia)
19	Manitowoc Crane Group Czech Republic SRO	(Czech Republic)
20	Manitowoc Crane Group France SAS or MCG France SAS	(France)
21	Manitowoc Crane Group Germany GmbH	(Germany)
22	Manitowoc Crane Group Holding Germany GmbH	(Germany)
23	Manitowoc Crane Group Inc.	(Philippines)
24	Manitowoc Crane Group Italy Srl or MCG Italy Srl	(Italy)
25	Manitowoc Crane Group Korea Co., Ltd.	(Korea)
26	Manitowoc Crane Group M-E (FZE)	(Dubai, UAE)
27	Manitowoc Crane Group Mexico, S. de R.L. de C.V.	(Mexico)
28	Manitowoc Crane Group Poland Sp	(Poland)
29	Manitowoc Crane Group Portugal Ltda	(Portugal)
30	Manitowoc Crane Group Slovakia SRO	(Slovak Republic)
31	Manitowoc Crane Group U.S. Holding, LLC	(Tennessee)
32	Manitowoc Cranes, LLC	(Wisconsin)
33	Manitowoc Credit (China) Leasing Company Limited	(China)
34	Manitowoc EMEA Holding SARL	(France)
35	Manitowoc Europe Limited	(United Kingdom)
36	Manitowoc France SAS	(France)
37	Manitowoc Funding LLC	(Nevada)
38	Manitowoc Group (UK) Limited (UK)/Enodis (Domestication) LLC	(Delaware)
39	Manitowoc Grove (Cayman Islands) Ltd.	(Cayman Islands)
40	Manitowoc Holding (Cayman Islands) Ltd.	(Cayman Islands)
41	Manitowoc Holding Asia SAS	(France)
42	Manitowoc Holding Germany LLC & Co. KG	(Germany)
43	Manitowoc Holdings (Netherlands Antilles) B.V.	(Netherlands Antilles)
44	Manitowoc Holdings (UK) Limited	(United Kingdom)
45	Manitowoc India Private Limited	(India)

46	Manitowoc Potain	(United Kingdom)
47	Manitowoc Potain (Cayman Islands) Ltd.	(Cayman Islands)
48	Manitowoc Re-Manufacturing, LLC	(Wisconsin)
49	Manitowoc Worldwide Holdings (France) SAS	(France)
50	Manitowoc Worldwide Holdings (France) SCS	(France)
51	Manitowoc Worldwide Holdings (Netherlands) BV	(Netherlands)
52	MMG Holding Co., LLC	(Nevada)
53	Potain GmbH	(Germany)
54	Potain India Pvt. Ltd.	(India)
55	Zhang Jia Gang Manitowoc Crane Trading Co. Ltd.	(China)

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-215860, 333-213877, 333-188428, 333-115992, 333-113804, 333-11729, and 333-11731), of The Manitowoc Company, Inc. of our report dated February 24, 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
Milwaukee, Wisconsin
February 24, 2017

Certification of Principal Executive Officer

I, Barry Pennypacker, certify that:

1. I have reviewed this Annual Report on Form 10-K of The Manitowoc Company, 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 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 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 24, 2017

/s/ Barry L. Pennypacker

Barry L. Pennypacker

President and Chief Executive Officer

Certification of Principal Financial Officer

I, David J. Antoniuk, certify that:

1. I have reviewed this Annual Report on Form 10-K of The Manitowoc Company, 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 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 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 24, 2017

/s/ David J. Antoniuk

David J. Antoniuk

Senior Vice President and Chief Financial Officer

**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 The Manitowoc Company, Inc. (the “company”) on Form 10-K for the year ended December 31, 2016 , as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Barry L. Pennypacker, Chief Executive Officer of the company, certify, pursuant to 18. U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (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 as of the date and for the periods expressed in the Report.

/s/ Barry L. Pennypacker

Barry L. Pennypacker

President and Chief Executive Officer

February 24, 2017

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to The Manitowoc Company, Inc. and will be retained by The Manitowoc Company, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

**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 The Manitowoc Company, Inc. (the “company”) on Form 10-K for the year ended December 31, 2016 , as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, David J. Antoniuk, Senior Vice President and Chief Financial Officer of the company, certify, pursuant to 18. U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (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 as of the date and for the periods expressed in the Report.

/s/ David J. Antoniuk

David J. Antoniuk

Senior Vice President and Chief Financial Officer

February 24, 2017

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to The Manitowoc Company, Inc. and will be retained by The Manitowoc Company, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.