UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549
FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended: December 31, 2019

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File No. 000-54799

HYSTER-YALE MATERIALS HANDLING, INC.

(Exact name of registrant as specified in its charter)

Delaware	**31-1637659**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

5875 Landerbrook Drive

Suite 300

Cleveland	**44124-4069**
OH	(Zip code)

(Address of principal executive offices)

Registrant's telephone number, including area code: **(440) 449-9600**

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, Par Value $0.01 Per Share	**HY**	**New York Stock Exchange**

Securities registered pursuant to Section 12(g) of the Act:
Class B Common Stock, Par Value $0.01 Per Share
(Title of class)

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). **Yes** ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or emerging growth company. See definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

Aggregate market value of Class A Common Stock and Class B Common Stock held by non-affiliates as of June 28, 2019 (the last business day of the registrant's most recently completed second fiscal quarter): $596,861,602

Number of shares of Class A Common Stock outstanding at February 21, 2020: 12,809,626
Number of shares of Class B Common Stock outstanding at February 21, 2020: 3,862,383

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's Proxy Statement for its 2020 annual meeting of stockholders are incorporated herein by reference in Part III of this Form 10-K.

HYSTER-YALE MATERIALS HANDLING, INC.
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PART I

Item 1. BUSINESS

General

Hyster-Yale Materials Handling, Inc. ("Hyster-Yale" or the "Company") and its subsidiaries, including its operating company Hyster-Yale Group, Inc. ("HYG"), is a leading, globally integrated, full-line lift truck manufacturer. The Company offers a broad array of solutions aimed at meeting the specific materials handling needs of its customers, including attachments and hydrogen fuel cell power products, telematics, automation and fleet management services, as well as a variety of other power options for its lift trucks. The Company, headquartered in Cleveland, Ohio, through HYG, designs, engineers, manufactures, sells and services a comprehensive line of lift trucks, attachments and aftermarket parts marketed globally primarily under the Hyster® and Yale® brand names, mainly to independent Hyster® and Yale® retail dealerships. Lift trucks and component parts are manufactured in the United States, China, Northern Ireland, Mexico, the Netherlands, the Philippines, Italy, Japan, Vietnam and Brazil. Hyster-Yale was incorporated as a Delaware corporation in 1999.

The Company owns a 75% majority interest in Hyster-Yale Maximal Forklift (Zhejiang) Co., Ltd. ("Hyster-Yale Maximal"). Hyster-Yale Maximal is a Chinese manufacturer of low-intensity and standard lift trucks and specialized material handling equipment. Hyster-Yale Maximal also designs and produces specialized products in the port equipment and rough terrain forklift markets. The results of Hyster-Yale Maximal are included in the JAPIC segment since the date of acquisition.

The Company operates Bolzoni S.p.A. ("Bolzoni"). Bolzoni is a leading worldwide producer and distributor of attachments, forks and lift tables marketed under the Bolzoni®, Auramo® and Meyer® brand names. Bolzoni products are manufactured in the United States, Italy, China, Germany and Finland. Through the design, production and distribution of a wide range of attachments, Bolzoni has a strong presence in the market niche of lift-truck attachments and industrial material handling.

In 2019, as part of a plan to expand Bolzoni's capabilities in the United States, Bolzoni's North America attachment manufacturing moved into HYG's Sulligent, Alabama manufacturing facility. As a result, effective January 1, 2019, the Sulligent facility became a Bolzoni facility. Accordingly, the results of the Sulligent facility in 2019 have been included in the Bolzoni segment and the historical results of operations of the Sulligent facility for 2018 and 2017 have been included in the Bolzoni segment within this Annual Report on Form 10-K.

The Company operates Nuvera Fuel Cells, LLC ("Nuvera"). Nuvera is an alternative-power technology company focused on the design, manufacture and sale of hydrogen fuel-cell stacks and engines.

The Company makes its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports available, free of charge, through its website, www.hyster-yale.com, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the Securities and Exchange Commission ("SEC").

The components of the Company's revenues were as follows for the year ended December 31:

	2019	2018	2017
Lift trucks	**75%**	77%	77%
Parts	**12%**	13%	13%
Service, rental and other	**8%**	4%	5%
Bolzoni	**5%**	5%	5%
Nuvera	**less than 1%**	1%	less than 1%

Sales of internal combustion engine lift trucks and electric lift trucks were approximately 47% and approximately 28% of annual revenues in 2019, respectively.

Manufacturing and Assembly

The Company manufactures components, such as frames, masts and transmissions, and assembles lift trucks in the market of sale whenever practical to minimize freight cost and balance currency mix. In some instances, however, it utilizes one worldwide location to manufacture specific components or assemble specific lift trucks. Additionally, components and assembled lift trucks are exported when it is advantageous to meet demand in certain markets. The Company operates twelve lift truck manufacturing and assembly facilities worldwide with four plants in the Americas, three in EMEA and five in JAPIC, including joint venture operations. In addition, the Company operates six Bolzoni manufacturing facilities worldwide.

Aftermarket Parts

The Company offers a line of aftermarket parts to service its large installed base of lift trucks currently in use in the industry. The Company offers online technical reference databases specifying the required aftermarket parts to service lift trucks and an aftermarket parts ordering system.

The Company sells Hyster®- and Yale®-branded aftermarket parts to dealers for Hyster® and Yale® lift trucks. The Company also sells aftermarket parts under the UNISOURCE™ and PREMIER™ brands to Hyster® and Yale® dealers for the service of competitor lift trucks. The Company has a contractual relationship with a third-party, multi-brand, aftermarket parts wholesaler in the Americas and EMEA whereby orders from the Company's dealers for parts for lift trucks are fulfilled by the third party who then pays the Company a commission.

Marketing

The Company's marketing organization is structured in three regional divisions by industry focus: the Americas; EMEA, which includes Europe, the Middle East and Africa; and JAPIC, which includes Japan, Asia, Pacific, India and China. In each region, certain marketing support functions for the Hyster® and Yale® brands are carried out by shared-services teams. These activities include sales and service training, information systems support, product launch coordination, specialized sales material development, help desks, order entry, marketing strategy and field service support.

Patents, Trademarks and Licenses

The Company relies on a combination of trade secret protection, trademarks, copyrights, and patents to establish and protect the Company's proprietary rights. These intellectual property rights may not have commercial value or may not be sufficiently broad to protect the aspect of the Company's technology to which they relate or competitors may design around the patents. The Company is not materially dependent upon patents or patent protection; however, as materials handling equipment has become more technologically advanced, the Company and its competitors have increasingly sought patent protection for inventions incorporated into their respective products. The Company owns the Hyster®,Yale®, Maximal®, Bolzoni®, Auramo®, Meyer® and Nuvera® trademarks and believes these trademarks are material to its business.

Distribution Network

The Company distributes lift trucks and attachments primarily through two channels: independent dealers and a direct sales program to major customers. In addition, the Company distributes aftermarket parts and service for its lift trucks through its independent dealers. The Company's end-user base is diverse and fragmented, including, among others, light and heavy manufacturers, trucking and automotive companies, rental companies, building materials and paper suppliers, lumber, metal products, warehouses, retailers, food distributors, container handling companies and U.S. and non-U.S. governmental agencies.

Independent Dealers

The Company's dealers, located in 124 countries, are generally independently owned and operated. The following table summarizes the Company's dealers as of December 31, 2019:

	Hyster®	Yale®	Dual-Branded	Maximal®
Americas	14	30	27	5
EMEA	69	84	3	12
JAPIC	102	8	5	73

Global Accounts

The Company operates a direct sales program to major customers for both Hyster® and Yale®. This program focuses on large customers with centralized purchasing and geographically dispersed operations in multiple dealer territories. This program accounted for 21%, 16% and 17% of new lift truck unit volume in 2019, 2018 and 2017, respectively. The independent dealers support these major customers by providing aftermarket parts and service on a local basis. Dealers receive a commission for the support they provide in connection with these major customer sales and for the preparation and delivery of lift trucks to customer locations. In addition to selling new lift trucks, this global accounts program markets services, including full maintenance leases and fleet management.

Financing of Sales

The Company is engaged in a joint venture with Wells Fargo Financial Leasing, Inc. ("WF") to provide dealer and customer financing of new lift trucks in the United States. The Company owns 20% of the joint venture entity, HYG Financial Services, Inc. ("HYGFS"), and receives fees and remarketing profits under a joint venture agreement. The current agreement has an initial term through December 2023 and automatically renews for additional one-year terms unless written notice is given by either party at least 180 days prior to termination. The Company accounts for its ownership of HYGFS using the equity method of accounting.

Under the joint venture agreement with HYGFS, the Company's dealers and certain customers are extended credit for the purchase of lift trucks to be placed in the dealer's floor plan inventory or the financing of lift trucks that are sold or leased to customers. For some of these arrangements, the Company provides recourse or repurchase obligations to HYGFS or to others. In substantially all of these transactions, a perfected security interest is maintained in the lift trucks financed, so that in the event of a default, the Company has the ability to take title to the assets financed and sell it through the Hyster® or Yale® dealer network. Furthermore, the Company has established reserves for exposures under these agreements when required. In addition, the Company has an agreement with WF to limit its exposure to losses at certain eligible dealers. Under this agreement, losses related to guarantees for these certain eligible dealers are limited to 7.5% of their original loan balance. See Notes 18 and 19 to the Consolidated Financial Statements in this Annual Report on Form 10-K for further discussion.

Backlog

The following table outlines the Company's backlog of unfilled orders placed with its manufacturing and assembly operations for new lift trucks:

	December 31, 2019	September 30, 2019	December 31, 2018
Units (in thousands)	**41.2**	43.4	43.9
Backlog, approximate sales value (in millions)	**$ 1,070**	$ 1,130	$ 1,190

As of December 31, 2019, the Company expects substantially all of its backlog of unfilled orders placed with its manufacturing and assembly operations for new lift trucks to be sold during fiscal 2020. Backlog represents unfilled lift truck orders placed with the Company's manufacturing and assembly facilities from dealers and direct sales to customers. In general, unfilled orders may be canceled at any time prior to the time of sale; however, the Company can assess cancellation penalties on dealer orders within a certain period prior to initiating production. The dollar value of backlog is calculated using the current unit backlog and the forecasted average sales price per unit.

Key Suppliers and Raw Materials

At times, the Company has experienced significant increases in material costs, primarily as a result of global price increases in industrial metals, including steel, lead and copper and other commodity products, such as rubber, as a result of increased demand and limited supply. While the Company attempts to pass these increased costs along to its customers in the form of higher prices for its products, it may not be able to fully offset the increased costs of industrial metals and other commodities, due to overall market conditions and the lag time involved in implementing price increases for its products.

A significant raw material required by the Company's manufacturing operations is steel, which is generally purchased from steel producing companies in the geographic area near each of the Company's manufacturing facilities. Other significant components for the Company's lift trucks are engines, axles, brakes, transmissions, batteries and chargers. In addition, the Company depends on a limited number of suppliers for some of the Company's crucial components, including diesel and gasoline engines, which are supplied by, among others, Power Solutions International, Inc., Kubota Corp., and Cummins Inc., drive-system components, which are supplied by, among others, Dana Corporation and ZF Company, and cast-iron counterweights used to counter balance some lift trucks, which are obtained from, among others, North Vernon Industry Corp. and Eagle Quest International Ltd. Some of these critical components are imported and subject to regulations, such as customary inspection by the U.S. Customs and Border Protection under the auspices of the U.S. Department of Homeland Security, as well as the Company's own internal controls and security procedures. While most components are available from numerous sources or in quantities sufficient to meet requirements, the Company has experienced shortages of key components for certain products, particularly in 2019, which has affected production levels.

Competition

The Company is one of the leaders in the lift truck industry with respect to market share in the Americas and worldwide. Competition in the materials handling industry is intense and is based primarily on strength and quality of distribution, brand loyalty, customer service, new lift truck sales prices, availability of products and aftermarket parts, comprehensive product line offerings, product performance, product quality and features and the cost of ownership over the life of the lift truck. The Company competes with several global lift truck manufacturers that operate in all major markets, as well as other niche companies. The lift truck industry also competes with alternative methods of materials handling, including conveyor systems and automated guided vehicles and systems. The Company's aftermarket parts offerings compete with parts manufactured by other lift truck manufacturers, as well as companies that focus solely on the sale of generic parts.

The use of fuel-cell technology in industrial and commercial applications is a relatively new development. Companies implementing such technology face competitors that integrate more traditional energy technologies into their product lines, as well as competitors that have implemented or are implementing alternatives to traditional energy technologies, such as lithium batteries, fuel additives and other high efficiency or “renewable” technologies.

Cyclical Nature of Lift Truck Business

The Company’s lift truck business historically has been cyclical. Fluctuations in the rate of orders for lift trucks, attachments and fuel-cell technology reflect the capital investment decisions of the Company’s customers, which depend to a certain extent on the general level of economic activity in the various industries the lift truck customers serve. During economic downturns, customers tend to delay new lift truck and parts purchases. Consequently, the Company has experienced, and in the future may continue to experience, significant fluctuations in its revenues and net income.

Research and Development

The Company’s lift truck research and development capability is organized around four major engineering centers, that are coordinated on a global basis. Products are designed for each brand concurrently and generally each center is focused on the global requirements for a single product line. The Company’s counterbalanced development center, which has global design responsibility for several classes of lift trucks for a highly diverse customer base, is located in Fairview, Oregon. The Company’s big truck development center is located in Nijmegen, the Netherlands, adjacent to a dedicated global big truck assembly facility. Big trucks are primarily used in handling shipping containers and other specialized heavy lifting applications, including steel, concrete and energy-related industries. Warehouse trucks, which are primarily used in distribution applications, are designed based on regional differences in stacking and storage practices. The Company designs warehouse equipment for sale in the Americas market in Greenville, North Carolina, adjacent to the Americas manufacturing and assembly facility. The Company designs warehouse equipment for the European market in Masate, Italy, adjacent to its manufacturing and assembly facility for warehouse equipment. The Company also has an engineering Concept Center in the United Kingdom to support advanced design activities and an engineering office in India to support its global design activities for its four major engineering centers.

The Company’s lift truck engineering centers utilize a three-dimensional CAD/CAM system and are interconnected, with each of the Company’s manufacturing and assembly facilities and certain suppliers. This allows for collaboration in technical engineering designs and collaboration with these suppliers. Additionally, the Company solicits customer feedback throughout the design phase to improve product development efforts.

Development and innovation of attachments occurs in each of the Bolzoni manufacturing plants for the specific products produced in that location.

Nuvera has two research and development locations. In the U.S., Billerica, Massachusetts is the primary location for design, development and testing of fuel-cell stacks and engines. In Europe, the operations at San Donato, Italy are primarily focused on fuel-cell systems integration and testing.

Sumitomo-NACCO Joint Venture

The Company has a 50% ownership interest in Sumitomo NACCO Forklift Co., Ltd. ("SN"), a limited liability company that was formed in 1970 primarily to manufacture and distribute Sumitomo-branded lift trucks in Japan and export Hyster®- and Yale®-branded lift trucks and related components and service parts outside of Japan. Sumitomo Heavy Industries, Ltd. owns the remaining 50% interest in SN. Each stockholder of SN is entitled to appoint directors representing 50% of the vote of SN’s board of directors. All matters related to policies and programs of operation, manufacturing and sales activities require mutual agreement between the Company and Sumitomo Heavy Industries, Ltd. prior to a vote of SN’s board of directors. As a result, the Company accounts for its ownership in SN using the equity method of accounting. The Company purchases Hyster®- and Yale®-branded lift trucks and related component and aftermarket parts from SN for sale outside of Japan under agreed-upon terms. The Company also contracts with SN for engineering design services on a cost plus basis and charges SN for technology used by SN but developed by the Company. During 2019, SN sold approximately 7,200 lift trucks.

Employees

As of January 31, 2020, the Company had approximately 7,900 employees. Certain employees in the Danville, Illinois parts depot operations are unionized. The Company’s contract with the Danville union expires in June 2021. All employees at the

Company's facilities in the United States (other than the Danville, Illinois parts depot) are not represented by unions. In Brazil, all employees are represented by a union. The Company’s contracts with the Brazilian unions expire annually at which time salaries and certain benefits are negotiated for the following year. In Mexico, certain employees are unionized. The Company’s contract with the Mexican union expires annually in March, at which time salaries are negotiated for the following year. Benefits in Mexico are negotiated every other year.

In Europe, certain employees in the Helsinki, Finland; Salzgitter, Germany; Craigavon, Northern Ireland; Masate, Italy; Piacenza, Italy; San Donato, Italy; and Nijmegen, the Netherlands facilities are represented by a union or a works council. All of the European employees are part of works councils or employee forums, which perform a consultative role on business and employment matters.

The Company believes its current labor relations with both union and non-union employees are generally satisfactory. However, there can be no assurances that the Company will be able to successfully renegotiate its union contracts without work stoppages or on acceptable terms. A prolonged work stoppage at a unionized facility could have a material adverse effect on the Company’s business and results of operations.

Environmental Matters

The Company’s manufacturing operations are subject to laws and regulations relating to the protection of the environment, including those governing the management and disposal of hazardous substances. The Company’s policies stress compliance, and the Company believes it is currently in substantial compliance with existing environmental laws. If the Company fails to comply with these laws or its environmental permits, it could incur substantial costs, including cleanup costs, fines and civil and criminal sanctions. In addition, future changes to environmental laws could require the Company to incur significant additional expense or restrict operations. Based on current information, the Company does not expect compliance with environmental requirements to have a material adverse effect on the Company’s financial condition or results of operations.

The Company’s products may also be subject to laws and regulations relating to the protection of the environment, including those governing vehicle exhaust. Regulatory agencies in the United States and Europe have issued or proposed various regulations and directives designed to reduce emissions from spark-ignited engines and diesel engines used in off-road vehicles, such as industrial lift trucks. These regulations require the Company and other lift truck manufacturers to incur costs to modify designs and manufacturing processes and to perform additional testing and reporting. While there can be no assurance, the Company believes the impact of the additional expenditures to comply with these requirements will not have a material adverse effect on its business.

The Company is investigating or remediating historical contamination at some current and former sites caused by its operations or those of businesses it acquired. While the Company is not currently aware that any material outstanding claims or obligations exist with regard to these sites, the discovery of additional contamination at these or other sites could result in significant cleanup costs that could have a material adverse effect on the Company’s financial conditions and results of operations.

In connection with any acquisition made by the Company, the Company could, under some circumstances, be held financially liable for or suffer other adverse effects due to environmental violations or contamination caused by prior owners of businesses the Company has acquired. In addition, under some of the agreements through which the Company has sold businesses or assets, the Company has retained responsibility for certain contingent environmental liabilities arising from pre-closing operations. These liabilities may not arise, if at all, until years later and could require the Company to incur significant additional expenses.

Government and Trade Regulations

The Company has been impacted by ongoing trade disputes with China which has led to the imposition of tariffs resulting in higher material costs. In addition, the Company’s business has been affected in the past by trade disputes between the United States and Europe. In the future, to the extent the Company is affected by trade disputes with other foreign jurisdictions, and increased tariffs are levied on its goods or the materials the Company purchases, its results of operations may be materially adversely affected.

Item 1A. RISK FACTORS

The lift truck business is cyclical. Any downturn in the general economy could result in significant decreases in the Company's revenue and profitability and an inability to sustain or grow the business.

The Company's lift truck business historically has been cyclical. Fluctuations in the rate of orders for lift trucks, attachments and fuel-cell technology reflect the capital investment decisions of the Company's customers, which depend to a certain extent on the general level of economic activity in the various industries the customers serve. During economic downturns, customers tend to delay new lift truck and parts purchases. Consequently, the Company has experienced, and in the future may continue to experience, significant fluctuations in revenues and net income. If there is a downturn in the general economy, or in the industries served by lift truck customers, the Company's revenue and profitability could decrease significantly, and the Company may not be able to sustain or grow the business.

The Company is subject to risks relating to its global operations.

The Company is a U.S.-based multinational corporation that has global operations. Operating globally subjects the Company to changes in government regulations and policies in a large number of jurisdictions around the world, including those related to tariffs and trade barriers, investments, property ownership rights, taxation, and exchange controls. Changes in the relative values of currencies occur from time to time and could affect the Company's operating results.

Further, existing free trade laws and regulations provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of international trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where the Company manufactures products could have a material adverse impact on the Company's business and financial results.

Part of the strategy to expand worldwide market share is strengthening the Company's non-U.S. distribution network. A part of this strategy also includes decreasing costs by sourcing basic components in lower-cost countries. Implementation of this part of the strategy may increase the impact of the risks to global operations and there can be no assurance that such risks will not have an adverse effect on the Company's revenues, profitability or market share.

Economic and political conditions in the United States and abroad may lead to significant changes in tax rules and regulations. For example, Brexit and proposals to reform non-U.S. tax laws or other regulations could significantly impact how multinational corporations do business. Although the Company cannot predict the final form or impact of any regulation or other proposal, if adopted at all, such regulations and proposals could, if enacted, have a material adverse impact on the Company's profitability.

In addition, operating globally subjects the Company to risks related to the health and welfare of its employees and the employees of suppliers, as well as the workplaces where the Company’s products or critical components from suppliers are manufactured. Conditions resulting from natural disasters or global health epidemics or pandemics, including the Coronavirus, may prevent or delay the Company’s ability to obtain critical components or manufacture and sell the Company’s products. These disruptions could materially affect the Company’s operations and revenues and profitability could be significantly reduced.

The Company depends on a limited number of suppliers for specific critical components.

The Company depends on a limited number of suppliers for some of its critical components, including diesel, gasoline and alternative fuel engines and cast-iron counterweights used to counterbalance some lift trucks. Some of these critical components are imported and subject to regulation, primarily with respect to customary inspection of such products by the U.S. Customs and Border Protection under the auspices of the U.S. Department of Homeland Security. While most components are available from numerous sources or in quantities sufficient to meet requirements, the Company has experienced shortages of key components for certain products, particularly in 2019, which has affected production levels. The results of operations have been and could be adversely affected if the Company is unable to obtain these critical components, or if the costs of these critical components were to increase significantly, due to regulatory compliance or otherwise, and the Company was unable to pass the cost increases on to its customers.

The cost of raw materials used by the Company's products has fluctuated and may continue to fluctuate, which could materially reduce the Company's profitability.

At times, the Company has experienced significant increases in materials costs, primarily as a result of global increases in industrial metals, including steel, lead and copper and other commodity prices, such as rubber, as a result of increased demand and limited supply. The Company manufactures products that include raw materials that consist of steel, rubber, copper, lead, castings and counterweights. The Company also purchases parts provided by suppliers that are manufactured from castings and steel or contain lead. The cost of these parts is affected by the same economic conditions that impact the cost of the parts the Company manufactures. The cost to manufacture lift trucks and related service parts has been and will continue to be affected by fluctuations in prices for these raw materials. If costs of these raw materials increase, the Company's profitability could be materially reduced.

The pricing and costs of the Company's products have been and may continue to be impacted by currency fluctuations, which could materially increase costs, and result in material exchange losses and reduce operating margins.

Because the Company conducts transactions in various currencies, including U.S. dollars, euros, Japanese yen, British pounds, Mexican pesos, Australian dollars, Swedish kroner, Brazilian real and Chinese renminbi, lift truck pricing is subject to the effects of fluctuations in the value of these currencies and fluctuations in the related currency exchange rates. As a result, the

Company's sales have historically been affected by, and may continue to be affected by, these fluctuations. In addition, exchange rate movements between currencies in which the Company purchases materials and components and manufactures certain products and the currencies in which the Company sells those products have been affected by and may continue to result in exchange losses that could materially reduce operating margins. Furthermore, the Company's hedging contracts may not fully offset risks from changes in currency exchange rates.

The Company relies primarily on its network of independent dealers to sell lift trucks and aftermarket parts and the Company has no direct control over sales by those dealers to customers. Ineffective or poor performance by these independent dealers could result in a significant decrease in revenues and profitability and the inability to sustain or grow the business.

The Company relies primarily on independent dealers for sales of lift trucks and aftermarket parts. Sales of the Company's products are therefore subject to the quality and effectiveness of the dealers, who are not subject to the Company's direct control. As a result, ineffective or poorly performing dealers could result in a significant decrease in revenues and profitability and the Company may not be able to sustain or grow its business.

If the Company's strategic initiatives, including the introduction of new products, do not prove effective, revenues, profitability and market share could be significantly reduced.

Changes in the timing of implementation of the Company's current strategic initiatives may result in a delay in the expected recognition of future costs and realization of future benefits. In addition, if future industry demand levels are lower than expected, the actual annual cost savings could be lower than expected. If the Company is unable to successfully implement these strategic initiatives, revenues, profitability and market share could be significantly reduced.

The Company may not be successful in commercializing Nuvera's technology, which success would depend, in part, on the Company's ability to protect Nuvera's intellectual property.

The Company may not be able to commercialize Nuvera's fuel-cell technologies on economically efficient terms. Unforeseen difficulties, such as delays in development due to design defects or changes in specifications and insufficient research and development resources or cost overruns, may hinder the Company's ability to incorporate Nuvera's technologies into its product lines on an economically favorable basis or at all.

Furthermore, Nuvera's commercial success will depend largely on the Company's ability to maintain patent and other intellectual property protection covering certain of Nuvera's technologies. Nuvera's fuel-cell technology may not be economically viable if the Company is unable to prevent others from infringing or successfully challenging the validity of certain patents and other intellectual property rights attributable to Nuvera.

Failure to compete effectively within the Company's industry could result in a significant decrease in revenues and profitability.

The Company experiences intense competition in the sale of lift trucks and aftermarket parts. Competition in the lift truck industry is based primarily on strength and quality of dealers, brand loyalty, customer service, new lift truck sales prices, availability of products and aftermarket parts, comprehensive product line offerings, product performance, product quality and features and the cost of ownership over the life of the lift truck. The Company competes with several global manufacturers that operate in all major markets. These manufacturers may have lower manufacturing costs and greater financial resources than the Company, which may enable them to commit larger amounts of capital in response to changing market conditions. If the Company fails to compete effectively, revenues and profitability could be significantly reduced.

If the global capital goods market declines, the cost saving efforts the Company has implemented may not be sufficient to achieve the benefits expected.

If the global economy or the capital goods market declines, revenues could decline. If revenues are lower than expected, the programs the Company has implemented may not achieve the benefits expected. Furthermore, the Company may be forced to take additional cost saving steps that could result in additional charges that materially adversely affect the ability to compete or implement the Company's current business strategies.

The Company is subject to import and export controls, which could subject the Company to liability or impair the Company's ability to compete in international markets.

Due to the international scope of the Company's operations, the Company is subject to a complex system of import- and export-related laws and regulations, including U.S. export control and customs regulations and customs regulations of other countries. These regulations are complex and vary among the legal jurisdictions in which the Company operates. Obtaining the necessary authorizations, including any required license, for a particular transaction may be time-consuming, is not guaranteed, and may result in the delay or loss of sales opportunities. Furthermore, U.S. export control laws and economic sanctions laws prohibit certain transactions with U.S. embargoed or sanctioned countries, governments, persons and entities. Any alleged or actual failure to comply with such laws and regulations may subject the Company to government scrutiny, investigation, and civil and criminal penalties, and may limit the Company's ability to import or export products or to provide services outside the United States. Depending on severity, any of these penalties could have a material impact on the Company's business, financial condition and results of operations. There can be no assurance that laws and regulations will not be changed in ways which will require the Company to modify its business models and objectives or affect the Company's returns on investments by restricting existing activities and products, subjecting them to escalating costs or prohibiting them outright.

The Company is subject to recourse or repurchase obligations with respect to the financing arrangements of some of its customers.

Through arrangements with WF and others, dealers and other customers are provided financing for new lift trucks in the United States and in major countries of the world outside of the United States. Through these arrangements, the Company's dealers and certain customers are extended credit for the purchase of lift trucks to be placed in the dealer’s floor plan inventory or the financing of lift trucks that are sold or leased to customers. For some of these arrangements, the Company provides recourse or repurchase obligations such that it would become obligated in the event of default by the dealer or customer. Total amounts subject to these types of obligations were $179.7 million and $192.7 million at December 31, 2019 and 2018, respectively. Generally, the Company maintains a perfected security interest in the assets financed such that, in the event that the Company becomes obligated under the terms of the recourse or repurchase obligations, it may take title to the assets financed. The Company cannot be certain, however, that the security interest will equal or exceed the amount of the recourse or repurchase obligations. In addition, the Company cannot be certain that losses under the terms of the recourse or repurchase obligations will not exceed the reserves that have been set aside in the consolidated financial statements. The Company could incur a charge to earnings if reserves prove to be inadequate, which could have a material adverse effect on results of operations and liquidity for the period in which the charge is taken.

Actual liabilities relating to pending lawsuits may exceed the Company's expectations.

The Company is a defendant in pending lawsuits involving, among other things, product liability claims. The Company cannot be sure that it will succeed in defending these claims, that judgments will not be rendered against the Company with respect to any or all of these proceedings or that reserves set aside or insurance policies will be adequate to cover any such judgments. The Company could incur a charge to earnings if reserves prove to be inadequate or the average cost per claim or the number of claims exceed estimates, which could have a material adverse effect on results of operations and liquidity for the period in which the charge is taken and any judgment or settlement amount is paid.

Other products may be introduced to the market by competitors, making the Nuvera technology less marketable.

The use of fuel-cell technology in industrial and commercial applications is a relatively new development. Companies implementing such technology face competition from competitors that integrate more traditional energy technologies into their product lines, as well as competitors that have implemented or are implementing alternatives to traditional energy technologies, such as lithium-ion batteries, fuel additives and other high efficiency or “renewable” technologies. Any of these technologies may have more established or otherwise more attractive manufacturing, distribution and operating cost features, which could negatively impact customers’ preferences for product lines that incorporate fuel-cell technology and, as a result, diminish the marketability of products incorporating Nuvera technology.

Actual liabilities relating to environmental matters may exceed the Company's expectations.

The Company's manufacturing operations are subject to laws and regulations relating to the protection of the environment, including those governing the management and disposal of hazardous substances. If the Company fails to comply with these laws or the Company's environmental permits, then the Company could incur substantial costs, including cleanup costs, fines and civil and criminal sanctions. In addition, future changes to environmental laws could require the Company to incur significant additional expenses or restrict operations.

The Company's products may also be subject to laws and regulations relating to the protection of the environment, including those governing vehicle exhausts. Regulatory agencies in the United States and Europe have issued or proposed various regulations and directives designed to reduce emissions from spark-ignited engines and diesel engines used in off-road vehicles, such as industrial lift trucks. These regulations require the Company and other lift truck manufacturers to incur costs to modify designs and manufacturing processes and to perform additional testing and reporting.

The Company is investigating or remediating historical contamination at some current and former sites caused by its operations or those of businesses it acquired. While the Company is not currently aware that any material outstanding claims or obligations exist with regard to these sites, the discovery of additional contamination at these or other sites could result in significant cleanup costs that could have a material adverse effect on the Company's financial condition and results of operations.

In connection with any acquisition the Company has made, it could, under some circumstances, be held financially liable for or suffer other adverse effects due to environmental violations or contamination caused by prior owners of businesses the Company has acquired. In addition, under some of the agreements through which the Company has sold businesses or assets, it has retained responsibility for certain contingent environmental liabilities arising from pre-closing operations. These liabilities may not arise, if at all, until years later and could require the Company to incur significant additional expenses, which could materially adversely affect the results of operations and financial condition.

The Company may be unable to protect its information technology infrastructure against service interruptions, data corruption, cyber-based attacks or network breaches, which have in the past and could in the future disrupt business operations or result in a loss of data confidentiality.

The Company relies on information technology networks and systems, including the Internet, to process, transmit and store electronic information, and to manage or support a variety of business processes and activities, including supply chain, manufacturing, distributing, invoicing and collection. The Company uses information technology systems to record, process and summarize financial information and results of operations for internal reporting purposes and to comply with regulatory financial reporting, legal and tax requirements. These technological networks and systems have been and may in the future be susceptible to damage, disruptions or shutdowns due to failures during the process of upgrading or replacing software, databases or components; power outages; hardware failures; or computer viruses or other types of cyber attacks. In addition, security breaches could result in unauthorized disclosure of confidential information. If these information technology systems suffer severe damage, disruption, breach, or shutdown, and business continuity plans do not effectively resolve the issues in a timely manner, there could be a negative impact on operating results or the Company may suffer financial or reputational damage.

The Company may become subject to claims under non-U.S. laws and regulations, which may require expensive, time-consuming and distracting litigation.

Because the Company has employees, property and business operations outside of the United States, it is subject to the laws and the court systems of many jurisdictions. The Company may become subject to claims outside the United States based in non-U.S. jurisdictions for violations of their laws with respect to the Company's non-U.S. operations. In addition, these laws may be changed or new laws may be enacted in the future. Non-U.S. litigation is often expensive, time consuming and distracting. As a result, any of these risks could significantly reduce profitability and the Company's ability to operate its businesses effectively.

The Company may be subject to risks relating to increasing cash requirements of certain employee benefit plans which may affect its financial position.

The expenses recorded for, and cash contributions required to be made to, the Company's defined benefit pension plans are dependent on changes in market interest rates and the value of plan assets, which are dependent on actual investment returns. Significant changes in market interest rates, decreases in the value of plan assets or investment losses on plan assets may require the Company to increase the cash contributed to defined benefit plans which may affect its financial position.

The Company is dependent on key personnel, and the loss of these key personnel could significantly reduce profitability.

The Company is highly dependent on the skills, experience and services of key personnel, and the loss of key personnel could have a material adverse effect on its business, operating results and financial condition. Employment and retention of qualified personnel is important to the successful conduct of the Company's business. Therefore, the Company's success also depends upon its ability to recruit, hire, train and retain additional skilled and experienced management personnel. The Company's inability to hire and retain personnel with the requisite skills could impair its ability to manage and operate its business effectively and could significantly reduce profitability.

Certain members of the Company’s extended founding family own a substantial amount of its Class A and Class B common stock and, if they were to act in concert, could control the outcome of director elections and other stockholder votes on significant corporate actions.

The Company has two classes of common stock: Class A common stock and Class B common stock. Holders of Class A common stock are entitled to cast one vote per share and, as of December 31, 2019, accounted for approximately 25 percent of the voting power of the Company. Holders of Class B common stock are entitled to cast ten votes per share and, as of December 31, 2018, accounted for the remaining voting power of the Company. As of December 31, 2019, certain members of the Company’s extended founding family held approximately 31 percent of the Company’s outstanding Class A common stock and approximately 85 percent of the Company’s outstanding Class B common stock. On the basis of this common stock ownership, certain members of the Company’s extended founding family could have exercised 72 percent of the Company’s total voting power. Although there is no voting agreement among such extended family members, in writing or otherwise, if they were to act in concert, they could control the outcome of director elections and other stockholder votes on significant corporate actions, such as certain amendments to the Company’s certificate of incorporation and sale of the Company or substantially all of its assets. Because certain members of the Company's extended founding family could prevent other stockholders from exercising significant influence over significant corporate actions, the Company may be a less attractive takeover target, which could adversely affect the market price of its common stock.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

The following table presents the principal assembly, manufacturing, distribution and office facilities that the Company owns or leases:

Segment	Facility Location	Owned/Leased	Function(s)
Lift Truck			
Americas	Berea, Kentucky	Owned	Assembly of lift trucks and manufacture of component parts
	Charlotte, North Carolina	Leased	Customer experience and training center
	Cleveland, Ohio	Leased	Global headquarters
	Danville, Illinois	Owned	Americas parts distribution center
	Fairview, Oregon	Owned	Counterbalanced development center for design and testing of lift trucks, prototype equipment and component parts
	Greenville, North Carolina	Owned	Divisional headquarters and marketing and sales operations for Hyster® and Yale® in the Americas; Americas warehouse development center; assembly of lift trucks and manufacture of component parts
	Itu, Brazil	Owned	Assembly of lift trucks and parts distribution center
	Ramos Arizpe, Mexico	Owned	Manufacture of component parts for lift trucks
EMEA	Craigavon, Northern Ireland	Owned	Manufacture of lift trucks and cylinders; frame and mast fabrication for EMEA
	Frimley, Surrey, UK	Leased	Divisional headquarters and marketing and sales operations for Hyster® and Yale® in EMEA
	Irvine, Scotland	Leased	European administrative center
	Masate, Italy	Leased	Assembly of lift trucks; European warehouse development center
	Nijmegen, the Netherlands	Owned	Big trucks development center; manufacture and assembly of big trucks and component parts; European parts distribution center
JAPIC	Fuyang, China	Owned	Manufacture and assembly of lift trucks
	Pune, India	Leased	Engineering design services
	Shanghai, China	Owned	Assembly of lift trucks, sale of parts and marketing operations of China
	Sydney, Australia	Leased	Divisional headquarters and sales and marketing for JAPIC; JAPIC parts distribution center
Bolzoni	Helsinki, Finland	Leased	Manufacture and distribution of Bolzoni products
	Heibei, China	Owned	Manufacture and distribution of Bolzoni products
	Piacenza, Italy	Owned	Bolzoni headquarters; manufacture and distribution of Bolzoni products
	Salzgitter, Germany	Owned	Manufacture and distribution of Bolzoni products
	Sulligent, Alabama	Owned	Manufacture of Bolzoni products and manufacture of component parts for Lift Truck
	Wuxi, China	Owned	Manufacture and distribution of Bolzoni products
Nuvera	Billerica, Massachusetts	Leased	Nuvera research and development laboratory

SN's operations are supported by three facilities. SN's headquarters are located in Obu, Japan at a facility owned by SN. The Obu facility also has assembly and distribution capabilities for lift trucks and parts. In Cavite, the Philippines and Hanoi, Vietnam, SN owns facilities for the manufacture of components for SN and the Company's products.

Item 3. LEGAL PROCEEDINGS

The Company is, and will likely continue to be, involved in a number of legal proceedings which the Company believes generally arise in the ordinary course of the business, given its size, history and the nature of its business and products. The Company is not a party to any material legal proceeding.

Item 4. MINE SAFETY DISCLOSURES

None.

Item 4A. INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following tables set forth the name, age, current position and principal occupation and employment during the past five years of the Company's executive officers.

Name	Age	Current Position	Other Positions
Alfred M. Rankin, Jr.	78	Chairman, President and Chief Executive Officer of Hyster-Yale (from prior to 2015), Chairman of HYG (from prior to 2015).	
Rajiv K. Prasad	56	President and Chief Executive Officer of Hyster-Yale Group (from January 2020).	Chief Product and Operations Officer of HYG (February 2018 to December 2019), Senior Vice President, Global Product Development, Manufacturing and Supply Chain Strategy of HYG (from prior to 2015 to February 2018).
Gregory J. Breier	54	Vice President, Tax of Hyster-Yale (from May 2015), Vice President, Tax of HYG (from prior to 2015).	
Brian K. Frentzko	59	Vice President, Treasurer of Hyster-Yale (from prior to 2015), Vice President, Treasurer of HYG (from prior to 2015).	
Stephen J. Karas	50	Vice President, President Asia Pacific (from February 2020)	Vice President, Global Supply Chain of HYG (November 2015 to January 2020), Director of Supply Chain, Americas of HYG (from prior to 2015 to October 2015).
Jennifer M. Langer	46	Vice President, Controller of Hyster-Yale (from prior to 2015), Vice President, Controller of HYG (from prior to 2015).	
David M. LeBlanc	55	Vice President, Strategy, Planning and Business Development of HYG (from August 2018).	Group President, International Engineered Support Structures, Valmont Industries, Inc. (an industrial company) (from April 2015 to February 2018).
Charles F. Pascarelli	60	Senior Vice President, President, Americas of HYG (from January 2015)	President, Sales and Marketing, Americas of HYG (from prior to 2015 to January 2015).
Anthony J. Salgado	49	Chief Operating Officer of HYG (from July 2019).	Senior Vice President, JAPIC of HYG (from January 2016 to June 2019), Vice President, Corporate Officer, UniCarriers Corporation (an industrial company) (from prior to 2015 to January 2016), President, UniCarriers Americas Corporation (from prior to 2015 to January 2016).
Harry Sands	68	Senior Vice President, Managing Director, Europe, Middle East and Africa of HYG (from June 2015).	Vice President, Manufacturing EMEA of HYG (from prior to 2015 to June 2015).
Kenneth C. Schilling	60	Senior Vice President and Chief Financial Officer of Hyster-Yale (from prior to 2015), Senior Vice President and Chief Financial Officer of HYG (from prior to 2015).	
Patric Schroeter	46	Vice President Finance, JAPIC (from September 2019).	Vice President and CFO Asia-Pacific, KION Group (a materials handling company) (from October 2016 to September 2019), Director, Cost Transformation Asia, Middle-East, Africa and Australia, BT Group (a telecommunications company) (from July 2015 to September 2016), Managing Director, OneAxcess (an advisory and management company) (from prior to 2015 to June 2015).
Gopichand Somayajula	63	Vice President, Global Product Development of HYG (from prior to 2015)	
Suzanne S. Taylor	57	Senior Vice President, General Counsel and Secretary of Hyster-Yale (from May 2016), Senior Vice President, General Counsel and Secretary of HYG (from May 2016).	Vice President, Deputy General Counsel and Assistant Secretary of Hyster-Yale (from prior to 2015 to May 2016), Vice President, Deputy General Counsel and Assistant Secretary of HYG (from prior to 2015 to May 2016).
Mark H. Trivett	50	Vice President Finance, Europe, Middle East and Africa of HYG (from prior to 2015).	
Raymond C. Ulmer	56	Vice President Finance, Americas of HYG (from prior to 2015).	

The information under this Item is furnished pursuant to Instruction 3 to Item 401(b) of Regulation S-K.There exists no arrangement or understanding between any executive officer and any other person pursuant to which such executive officer was elected. Each executive officer serves until his or her successor is elected and qualified.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The Company's Class A common stock is traded on the New York Stock Exchange under the ticker symbol "HY." There is no established public trading market for the Company's Class B common stock, and no alternative trading or quotation system for the Company's Class B common stock has been or is expected to be established. The Class B common stock is convertible into Class A common stock on a one-for-one basis.

At December 31, 2019, there were approximately 842 Class A common stockholders of record and approximately 847 Class B common stockholders of record.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

There have been no issuer purchases of equity securities and no publicly announced repurchase program currently exists.

Item 6. SELECTED FINANCIAL DATA

	Year Ended December 31				
	2019	2018	2017 (1)	2016	2015
	(In millions, except per share and employee data)				
Operating Statement Data:					
Revenues	**$ 3,291.8**	$ 3,179.1	$ 2,885.2	$ 2,569.7	$ 2,578.1
Operating profit	**$ 53.9**	$ 38.8	$ 74.1	$ 32.9	$ 103.5
Net income	**$ 36.6**	$ 34.3	$ 48.9	$ 42.3	$ 75.1
Net (income) loss attributable to noncontrolling interest	**(0.8)**	0.4	(0.3)	0.5	(0.4)
Net income attributable to stockholders	**$ 35.8**	$ 34.7	$ 48.6	$ 42.8	$ 74.7
Basic earnings per share attributable to stockholders	**$ 2.15**	$ 2.10	$ 2.95	$ 2.61	$ 4.58
Diluted earnings per share attributable to stockholders	**$ 2.14**	$ 2.09	$ 2.94	$ 2.61	$ 4.57
Balance Sheet Data at December 31:					
Total assets	**$ 1,847.2**	$ 1,742.1	$ 1,647.9	$ 1,287.1	$ 1,095.9
Long-term debt	**$ 204.7**	$ 210.1	$ 216.2	$ 82.2	$ 19.6
Stockholders' equity	**$ 544.3**	$ 527.4	$ 565.5	$ 463.8	$ 460.8
Cash Flow Data:					
Provided by (used for) operating activities	**$ 76.7**	$ 67.6	$ 164.7	$ (48.9)	$ 89.4
Used for investing activities	**$ (42.0)**	$ (110.9)	$ (47.3)	$ (145.1)	$ (31.3)
Provided by (used for) financing activities	**$ (51.6)**	$ (87.6)	$ 53.1	$ 77.9	$ (7.1)
Other Data:					
Per share data:					
Cash dividends	**$ 1.2625**	$ 1.2325	$ 1.2025	$ 1.1700	$ 1.1300
Market value at December 31	**$ 58.96**	$ 61.96	$ 85.16	$ 63.77	$ 52.45
Stockholders' equity at December 31	**$ 32.66**	$ 31.85	$ 34.35	$ 28.30	$ 28.23
Actual shares outstanding at December 31	**16.667**	16.561	16.462	16.391	16.324
Basic weighted average shares outstanding	**16.645**	16.540	16.447	16.376	16.307
Diluted weighted average shares outstanding	**16.726**	16.602	16.514	16.427	16.355
Total employees at December 31(2)	**7,900**	7,700	6,800	6,500	5,400

(1) During 2017, the Company recognized $19.8 million of equity income from HYGFS and $38.2 million of income tax expense as a result of the Tax Cuts and Jobs Act (the "Tax Reform Act"), which was signed into law on December 22, 2017. Further information on the impacts of the Tax Reform Act is discussed in Note 7 to the consolidated financial statements.

(2) Excludes temporary employees.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
(Tabular Amounts in Millions, Except Per Share, Percentage Data and as Otherwise Noted)

OVERVIEW

Hyster-Yale Materials Handling, Inc. ("Hyster-Yale" or the "Company") and its subsidiaries, including its operating company Hyster-Yale Group, Inc. ("HYG"), is a leading, globally integrated, full-line lift truck manufacturer. The Company offers a broad array of solutions aimed at meeting the specific materials handling needs of its customers, including attachments and hydrogen fuel cell power products, telematics, automation and fleet management services, as well as a variety of other power options for its lift trucks. The Company, through HYG, designs, engineers, manufactures, sells and services a comprehensive line of lift trucks, attachments and aftermarket parts marketed globally primarily under the Hyster® and Yale® brand names, mainly to independent Hyster® and Yale® retail dealerships. The materials handling business historically has been cyclical because the rate of orders for lift trucks fluctuates depending on the general level of economic activity in the various industries and countries its customers serve. Lift trucks and component parts are manufactured in the United States, China, Northern Ireland, Mexico, the Netherlands, the Philippines, Italy, Japan, Vietnam and Brazil.

The Company owns a 75% majority interest in Hyster-Yale Maximal Forklift (Zhejiang) Co., Ltd. ("Hyster-Yale Maximal"). Hyster-Yale Maximal is a Chinese manufacturer of low-intensity and standard lift trucks and specialized material handling equipment. Hyster-Yale Maximal also designs and produces specialized products in the port equipment and rough terrain forklift markets. The results of Hyster-Yale Maximal are included in the JAPIC segment since the date of acquisition.

The Company operates Bolzoni S.p.A. ("Bolzoni"). Bolzoni is a leading worldwide producer and distributor of attachments, forks and lift tables marketed under the Bolzoni®, Auramo® and Meyer® brand names. Bolzoni products are manufactured in the United States, Italy, China, Germany and Finland. Through the design, production and distribution of a wide range of attachments, Bolzoni has a strong presence in the market niche of lift-truck attachments and industrial material handling.

In 2019, as part of a plan to expand Bolzoni's capabilities in the United States, Bolzoni's North America attachment manufacturing moved into HYG's Sulligent, Alabama manufacturing facility. As a result, effective January 1, 2019, the Sulligent facility became a Bolzoni facility. Accordingly, the results of the Sulligent facility in 2019 have been included in the Bolzoni segment and the historical results of operations of the Sulligent facility for 2018 and 2017 have been included in the Bolzoni segment.

The Company operates Nuvera Fuel Cells, LLC ("Nuvera"). Nuvera is an alternative-power technology company focused on the design, manufacture and sale of hydrogen fuel-cell stacks and engines.

Competition in the materials handling industry is intense and is based primarily on strength and quality of distribution, brand loyalty, customer service, new lift truck sales prices, availability of products and aftermarket parts, comprehensive product line offerings, product performance, product quality and features and the cost of ownership over the life of the lift truck. The Company competes with several global lift truck manufacturers that operate in all major markets, as well as other niche companies. The lift truck industry also competes with alternative methods of materials handling, including conveyor systems and automated guided vehicle systems. The Company's aftermarket parts offerings compete with parts manufactured by other lift truck manufacturers, as well as companies that focus solely on the sale of generic parts.

The Company's mission is to be a leading, globally integrated designer, manufacturer and marketer of a complete range of lift-truck solutions by leveraging its high-quality, application-tailored lift trucks, attachments and power solutions to offer the lowest cost of ownership and the best overall value. The Company’s core competency is lift truck manufacturing, but its goal is to become the lift truck solutions partner to the materials handling market, one customer and one industry at a time.

The Company’s objective is to provide a wide-range of solutions to its customers to generate profitable growth through increasing volumes, which in turn are expected to generate market share gains and drive improved margins. The Company plans to accomplish these objectives by implementing its core strategic initiatives to: provide the lowest cost of ownership, while enhancing productivity for customers; be the leader in the delivery of industry- and customer-focused solutions; be the leader in independent distribution; grow in emerging markets; be the leader in the attachments business and be a leader in fuel cells and their applications.

Critical Accounting Policies and Estimates

The discussion and analysis of financial condition and results of operations are based upon the Company's consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires the use of estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities, if any. On an ongoing basis, the Company evaluates its estimates based on historical experience, actuarial valuations and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from those estimates.

The Company believes the following are critical accounting policies. Certain of these are critical accounting estimates as they require significant judgments and estimates used in the preparation of the consolidated financial statements.

Long-lived assets, goodwill and intangible assets: Net property, plant and equipment, right-of-use ("ROU") assets, goodwill and net intangible assets at December 31, 2019 were $308.5 million, $76.2 million, $106.7 million and $60.1 million, respectively. The Company makes estimates and assumptions in preparing the consolidated financial statements for which actual results will emerge over long periods of time. This includes the recoverability of long-lived assets employed in the business, including assets of acquired businesses. These estimates and assumptions are closely monitored and periodically adjusted as circumstances warrant. For instance, expected asset lives may be shortened or an impairment recorded based on a change in the expected use of the asset or performance of the related asset group.

The Company periodically evaluates long-lived assets, including intangible assets with finite lives, for impairment when changes in circumstances or the occurrence of certain events indicate the carrying amount of an asset may not be recoverable. Upon identification of indicators of impairment, assets and liabilities are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets or liabilities. The asset group would be considered impaired when the estimated future undiscounted cash flows generated by the asset group are less than carrying value. If the carrying value of an asset group is considered impaired, an impairment charge is recorded for the amount that the carrying value of the asset group exceeds its fair value. Fair value is estimated 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. The determination of asset groups and the underlying cash flows requires the use of significant judgment.

The Company has intangible assets, including customer and contractual relationships, patents and technology, and trademarks. Intangible assets with a definite life are amortized over a period ranging from one to twenty years on a systematic and rational basis (generally straight line) that is representative of the asset's use. Costs related to internally developed intangible assets, such as patents, are expensed as incurred and included in selling, general and administrative expenses.

Intangible assets with an indefinite life, including certain trademarks, are not amortized. Indefinite-lived intangible assets are tested for impairment annually, and are tested for impairment between annual tests if an event occurs or circumstances change that would indicate that the carrying amount may be impaired. An impairment loss generally would be recognized when the fair value is less than the carrying value of the indefinite-lived intangible asset.

Of the $60.1 million of net intangible assets, $16.9 million relates to indefinite-lived trademarks, related to the acquisition of Bolzoni. The primary valuation technique used in estimating the fair value of indefinite-lived intangible assets is the present value of discounted cash flows. Specifically, a relief of royalty rate is applied to estimated sales, with the resulting amounts discounted using an appropriate discount rate of a market participant. The relief of royalty rate is the estimated royalty rate a market participant would pay to acquire the right to market and produce the product. If the resulting discounted cash flows are less than book value of the indefinite-lived intangible asset, an impairment exists and the asset would be adjusted to fair value. Based on impairment testing as of May 1, 2019, no impairment was identified.

Goodwill is tested for impairment annually as of May 1 and is tested for impairment between annual tests if an event occurs or circumstances change that would indicate the carrying amount may be impaired. The Company completed the annual testing of impairment of goodwill as of May 1, 2019 at the reporting unit level for the related goodwill. The Company uses either a qualitative or quantitative analysis to determine whether fair value exceeds carrying value. An estimate of the fair value of the reporting unit is determined through a combination of comparable market values for similar businesses and discounted cash flows. These estimates can change significantly based on such factors as the reporting unit's financial performance, economic conditions, interest rates, growth rates, pricing, changes in business strategies and competition. Based on this testing, the fair value of each reporting unit was in excess of its carrying value and no impairment exists.

Factors which could result in future impairment charges include, but are not limited to, changes in worldwide economic conditions, changes in competitive conditions and customer preferences. These risk factors are discussed in Item 1A, "Risk Factors," of this Form 10-K. In addition, changes in the weighted average cost of capital could also impact impairment testing results. The Company will continue to monitor its reporting units and asset groups for any indicators of impairment.

Product liabilities: The Company provides for the estimated cost of personal and property damage relating to its products based on a review of historical experience and consideration of any known trends. Reserves are recorded for estimates of the costs for known claims and estimates of the costs of incidents that have occurred but for which a claim has not yet been reported, up to the stop-loss insurance coverage. While the Company engages in extensive product quality reviews and customer education programs, the product liability provision is affected by the number and magnitude of claims of alleged product-related injury and property damage and the cost to defend those claims. In addition, the estimates regarding the magnitude of claims are affected by changes in assumptions regarding medical costs, inflation rates and trends in damages awarded by juries. Changes in the assumptions regarding any one of these factors could result in a change in the estimate of the magnitude of claims. A one percent increase in the estimate of the number of claims or the magnitude of claims would increase the product liability reserve and reduce operating profit by approximately $0.1 million to $0.5 million. Although there can be no assurances, the Company is not aware of any circumstances that would be reasonably likely to materially change the estimates in the future.

Self-insurance liabilities: The Company is generally self-insured for product liability, environmental liability and medical and workers' compensation claims. For product liability, catastrophic insurance coverage is retained for potentially significant individual claims. The Company also has insurance for certain historic product liability claims. An estimated provision for claims reported and for claims incurred but not yet reported under the self-insurance programs is recorded and revised periodically based on industry trends, historical experience and management judgment. In addition, industry trends are considered within management's judgment for valuing claims. Changes in assumptions for such matters as legal judgments and settlements, legal defense costs, inflation rates, medical costs and actual experience could cause estimates to change in the near term. Changes in any of these factors could materially change the estimates for these self-insurance obligations causing a related increase or decrease in reported net operating results in the period of change in the estimate.

Product warranties: The Company provides for the estimated cost of product warranties at the time revenues are recognized. While the Company engages in extensive product quality programs and processes, including actively monitoring and evaluating the quality of component suppliers, the warranty obligation is affected by product failure rates, labor costs and replacement component costs incurred in correcting a product failure. If actual product failure rates, labor costs or replacement component costs differ from the Company's estimates, which are based on historical failure rates and consideration of known trends, revisions to the estimate of the cost to correct product failures would be required. If the estimate of the cost to correct product failures were to increase by one percent over 2019 levels, the reserves for product warranties would increase and additional expense of $0.3 million would be incurred. The Company's past results of operations have not been materially affected by a change in the estimate of product warranties and although there can be no assurances, the Company is not aware of any circumstances that would be reasonably likely to materially change the estimates in the future.

Revenue recognition: Revenue is recognized when obligations under the terms of a contract with the customer are satisfied which occurs when control of products or services are transferred to the customer. Revenue is measured as the amount of consideration expected to be received in exchange for transferring goods or providing services. The satisfaction of performance obligations under the terms of a revenue contract generally gives rise for the right to payment from the customer. The Company's standard payment terms vary by the type and location of the customer and the products or services offered. Generally, the time between when revenue is recognized and when payment is due is not significant. Given the insignificant days between revenue recognition and receipt of payment, financing components do not exist between the Company and its customers. Taxes collected from customers are excluded from revenue. The estimated costs of product warranties are recognized as expense when the products are sold. See Note 16 for further information on product warranties.

The majority of the Company's sales contracts contain performance obligations satisfied at a point in time when title and risks and rewards of ownership have transferred to the customer. Revenue for service contracts are recognized as the services are provided.

For contracts with customers that include multiple performance obligations, judgment is required to determine whether performance obligations specified in these contracts are distinct and should be accounted for as separate revenue transactions for recognition purposes. For such arrangements, revenue is allocated to each performance obligation based on its relative standalone selling price. Standalone selling prices are generally determined based on the prices charged to customers or using expected cost plus margin. Impairment losses recognized on receivables or contract assets were not significant for the year ended December 31, 2019.

The Company generally expenses sales commissions when incurred because the amortization period would have been one year or less. These costs are reported on the line "Selling, general and administrative expenses" in the Consolidated Statements of Operations.

The Company pays for shipping and handling activities regardless of when control is transferred and has elected to account for shipping and handling as activities to fulfill the promise to transfer the good, rather than a promised service. These costs are reported on the line “Cost of sales” in the Consolidated Statements of Operations.

Retirement benefit plans: The Company maintains various defined benefit pension plans that provide benefits based on years of service and average compensation during certain periods. Pension benefits are frozen for all employees other than certain employees in the Netherlands. All other eligible employees, including employees whose pension benefits are frozen, receive retirement benefits under defined contribution retirement plans. The Company's policy is to periodically make contributions to fund the defined benefit pension plans within the range allowed by applicable regulations. The defined benefit pension plan assets consist primarily of publicly traded stocks and government and corporate bonds. There is no guarantee the actual return on the plans’ assets will equal the expected long-term rate of return on plan assets or that the plans will not incur investment losses.

The expected long-term rate of return on defined benefit plan assets reflects management’s expectations of long-term rates of return on funds invested to provide for benefits included in the projected benefit obligations. In establishing the expected long-term rate of return assumption for plan assets, the Company considers the historical rates of return over a period of time that is consistent with the long-term nature of the underlying obligations of these plans as well as a forward-looking rate of return. The historical and forward-looking rates of return for each of the asset classes used to determine the Company's estimated rate of return assumption were based upon the rates of return earned or expected to be earned by investments in the equivalent benchmark market indices for each of the asset classes.

Expected returns for most of the Company's pension plans are based on a calculated market-related value of assets. Under this methodology, asset gains and losses resulting from actual returns that differ from expected returns are recognized in the market-related value of assets ratably over three years.

The basis for the selection of the discount rate for each plan is determined by matching the timing of the payment of the expected obligations under the defined benefit plans against the corresponding yield of high-quality corporate bonds of equivalent maturities.

The following illustrates the sensitivity of the net periodic benefit cost and projected benefit obligation to a 1% change in the discount rate or return on plan assets (in millions):

Assumption	Change	Increase (decrease) 2020 net pension expense	Increase (decrease) 2019 projected benefit obligation
Discount rate	1% increase	$(0.2)	$(31.8)
	1% decrease	0.5	36.3
Return on plan assets	1% increase	(2.2)	N/A
	1% decrease	2.2	N/A

A change in life expectancy by one year would result in a $7.7 million change in the 2019 projected benefit obligation.

See Note 10 to the consolidated financial statements in this Annual Report on Form 10-K for further discussion of the retirement benefit plans.

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HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES**
(Tabular Amounts in Millions, Except Per Share, Percentage Data and as Otherwise Noted)

CONSOLIDATED FINANCIAL REVIEW

The following table identifies the components of change for 2019 compared with 2018 by segment:

	Revenues	Gross Profit	Operating Profit	Net Income Attributable to Stockholders
2018	$ 3,179.1	$ 497.0	$ 38.8	$ 34.7
Increase (decrease) in 2019				
Americas	135.8	40.5	13.4	7.7
EMEA	(17.6)	7.7	4.1	2.7
JAPIC	7.6	7.6	0.6	(8.8)
Lift truck business	125.8	55.8	18.1	1.6
Bolzoni	(3.6)	(5.6)	(4.8)	(3.0)
Nuvera	(6.9)	(5.2)	2.0	2.7
Eliminations	(2.6)	(0.2)	(0.2)	(0.2)
2019	**$ 3,291.8**	**$ 541.8**	**$ 53.9**	**$ 35.8**

FINANCIAL REVIEW

The segment and geographic results of operations for the Company were as follows for the year ended December 31:

				Favorable / (Unfavorable) % Change	
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Lift truck unit shipments (in thousands)					
Americas	**59.3**	61.1	58.4	(2.9)%	4.6 %
EMEA	**28.4**	30.0	28.9	(5.3)%	3.8 %
JAPIC[1]	**12.6**	10.8	6.1	16.7 %	77.0 %
	100.3	101.9	93.4	(1.6)%	9.1 %
Revenues					
Americas	**$ 2,123.3**	$ 1,987.5	$ 1,834.1	6.8 %	8.4 %
EMEA	**751.2**	768.8	715.8	(2.3)%	7.4 %
JAPIC[1]	**249.7**	242.1	173.9	3.1 %	39.2 %
Lift truck business	**3,124.2**	2,998.4	2,723.8	4.2 %	10.1 %
Bolzoni	**345.4**	349.0	312.5	(1.0)%	11.7 %
Nuvera	**10.1**	17.0	3.7	n.m.	n.m.
Eliminations	**(187.9)**	(185.3)	(154.8)	n.m.	n.m.
	$ 3,291.8	$ 3,179.1	$ 2,885.2	3.5 %	10.2 %
Gross profit (loss)					
Americas	**$ 354.8**	$ 314.3	$ 334.6	12.9 %	(6.1)%
EMEA	**110.5**	102.8	95.7	7.5 %	7.4 %
JAPIC[1]	**29.7**	22.1	20.2	34.4 %	9.4 %
Lift truck business	**495.0**	439.2	450.5	12.7 %	(2.5)%
Bolzoni	**58.1**	63.7	54.8	(8.8)%	16.2 %
Nuvera	**(11.2)**	(6.0)	(2.1)	(86.7)%	(185.7)%
Eliminations	**(0.1)**	0.1	(0.6)	n.m.	n.m.
	$ 541.8	$ 497.0	$ 502.6	9.0 %	(1.1)%

(Tabular Amounts in Millions, Except Per Share, Percentage Data and as Otherwise Noted)

							Favorable / (Unfavorable) % Change	
		2019		2018		2017	2019 vs. 2018	2018 vs. 2017
Selling, general and administrative expenses								
Americas	**$**	**266.0**	$	238.9	$	225.0	(11.3)%	(6.2)%
EMEA		**99.8**		96.2		88.9	(3.7)%	(8.2)%
JAPIC[(1)]		**43.6**		36.6		26.3	(19.1)%	(39.2)%
Lift truck business		**409.4**		371.7		340.2	(10.1)%	(9.3)%
Bolzoni		**53.4**		54.2		48.4	1.5 %	(12.0)%
Nuvera		**25.1**		32.3		39.9	22.3 %	19.0 %
	$	**487.9**	$	458.2	$	428.5	(6.5)%	(6.9)%
Operating profit (loss)								
Americas	**$**	**88.8**	$	75.4	$	109.6	17.8 %	(31.2)%
EMEA		**10.7**		6.6		6.8	62.1 %	(2.9)%
JAPIC[(1)]		**(13.9)**		(14.5)		(6.1)	4.1 %	(137.7)%
Lift truck business		**85.6**		67.5		110.3	26.8 %	(38.8)%
Bolzoni		**4.7**		9.5		6.4	(50.5)%	48.4 %
Nuvera		**(36.3)**		(38.3)		(42.0)	5.2 %	8.8 %
Eliminations		**(0.1)**		0.1		(0.6)	n.m.	n.m.
	$	**53.9**	$	38.8	$	74.1	38.9 %	(47.6)%
Interest expense	**$**	**19.8**	$	16.0	$	14.6	(23.8)%	(9.6)%
Other income	**$**	**(13.8)**	$	(13.8)	$	(34.3)	— %	(59.8)%
Income before income taxes	**$**	**47.9**	$	36.6	$	93.8	30.9 %	(61.0)%
Net income (loss) attributable to stockholders								
Americas	**$**	**61.2**	$	53.5	$	68.4	14.4 %	(21.8)%
EMEA		**9.0**		6.3		5.3	42.9 %	18.9 %
JAPIC[(1)]		**(11.9)**		(3.1)		(1.9)	(283.9)%	(63.2)%
Lift truck business		**58.3**		56.7		71.8	2.8 %	(21.0)%
Bolzoni		**2.8**		5.8		3.9	(51.7)%	48.7 %
Nuvera		**(25.2)**		(27.9)		(26.7)	9.7 %	(4.5)%
Eliminations		**(0.1)**		0.1		(0.4)	n.m.	n.m.
	$	**35.8**	$	34.7	$	48.6	3.2 %	(28.6)%
Diluted earnings per share	**$**	**2.14**	$	2.09	$	2.94	2.4 %	(28.9)%
Reported income tax rate		**23.6%**		6.3%		47.9%		

[(1)] Maximal was acquired on June 1, 2018 and results of operations have been included since the acquisition date.

n.m. - not meaningful

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Following is the detail of the Company's unit shipments, bookings and backlog of unfilled orders placed with its manufacturing and assembly operations for new lift trucks, reflected in thousands of units. As of December 31, 2019, substantially all of the Company's backlog is expected to be sold within the next twelve months.

	YEAR ENDED	NINE MONTHS ENDED	YEAR ENDED
	December 31, 2019	September 30, 2019	December 31, 2018
Unit backlog, beginning of period	**43.9**	43.9	33.8
Unit shipments	**(100.3)**	(75.5)	(101.9)
Unit bookings	**97.6**	75.0	112.0
Unit backlog, end of period	**41.2**	43.4	43.9

The following is the detail of the approximate sales value of the Company's lift truck unit bookings and backlog, reflected in millions of dollars. The dollar value of bookings and backlog is calculated using the current unit bookings and backlog and the forecasted average sales price per unit.

	YEAR ENDED		NINE MONTHS ENDED		YEAR ENDED	
	December 31, 2019		September 30, 2019		December 31, 2018	
Bookings, approximate sales value	**$**	**2,240**	$	1,690	$	2,600
Backlog, approximate sales value	**$**	**1,070**	$	1,130	$	1,190

2019 Compared with 2018

The following table identifies the components of change in revenues for 2019 compared with 2018:

		Revenues
2018	$	3,179.1
Increase (decrease) in 2019 from:		
Unit price		115.9
Other		29.6
Maximal revenues		23.9
Parts		6.8
Unit volume and product mix		(0.5)
Bolzoni revenues		(3.6)
Nuvera revenues		(6.9)
Foreign currency		(52.5)
2019	**$**	**3,291.8**

Revenues increased 3.5% to $3,291.8 million in 2019 from $3,179.1 million in 2018. The increase was mainly due to improved pricing to offset material cost increases and tariffs, increased other revenue related to higher sales of attachments and the acquisition of Hyster-Yale Maximal. These items were partially offset by unfavorable currency movements from the translation of sales into U.S. dollars.

Revenues in the Americas increased in 2019 compared with 2018 primarily as a result of improved pricing, increased other revenue related to higher sales of attachments and higher parts sales. The higher pricing was implemented to offset material cost increases and tariffs.

EMEA's revenues decreased mainly as a result of unfavorable currency movements of $40.8 million from the translation of sales into U.S. dollars, partially offset by improved pricing and increased shipments of higher-priced lift trucks.

(Tabular Amounts in Millions, Except Per Share, Percentage Data and as Otherwise Noted)

Revenues in JAPIC increased primarily as a result of a full year of Hyster-Yale Maximal revenues during 2019 and only seven months subsequent to the acquisition date in 2018. This was partially offset by unfavorable foreign currency movements of $6.3 million from the translation of sales into U.S. dollars.

The decrease in Bolzoni's revenues was mainly due to unfavorable foreign currency movements of $10.7 million from the translation of sales into U.S. dollars, partially offset by higher volume.

Nuvera's revenues decreased in 2019 compared to 2018 primarily as a result of revenue recognized in the fourth quarter of 2018 which had previously been deferred related to battery box replacement ("BBRs"). For periods prior to the fourth quarter of 2018, Nuvera deferred revenue on its BBRs because of an inability to estimate future costs, including warranty. The Company established a warranty reserve and began recognizing revenue in the fourth quarter of 2018. The decrease was partially offset by an increase in development funding received associated with third-party development agreements.

The following table identifies the components of change in operating profit for 2019 compared with 2018:

		Operating Profit
2018	$	38.8
Increase (decrease) in 2019 from:		
Lift truck gross profit		55.6
Lift truck selling, general and administrative expenses		(37.7)
Nuvera operations		2.0
Bolzoni operations		(4.8)
2019	**$**	**53.9**

The Company recognized operating profit of $53.9 million in 2019 compared with $38.8 million in 2018. The increase in operating profit was mainly due to higher lift truck gross profit partially offset by higher lift truck selling, general and administrative expenses.

Operating profit in the Americas increased in 2019 compared with 2018 primarily as a result of higher gross profit partially offset by higher selling, general and administrative expenses. The increase in gross profit was mainly attributable to improved pricing. These increases were offset by unfavorable foreign currency movements, higher material cost from aluminum and steel tariffs, partially offset by $11.8 million of favorable retroactive tariff exclusion adjustments for direct imports and from suppliers for certain components imported from China, higher manufacturing costs, a shift in sales to lower-margin trucks and lower unit sales volume. Selling, general and administrative expenses increased mainly from higher sales and product development costs to support the Company's strategic initiatives, increased employee-related expenses and higher product liability expense, partially offset by the absence of Maximal acquisition-related costs incurred in 2018.

EMEA's operating profit increased in 2019 compared with 2018 primarily as a result of higher gross profit due to price increases, net of higher material costs. The increase was partially offset by higher selling, general and administrative expenses primarily to support the business and its strategic initiatives and unfavorable foreign currency movements.

The operating loss in JAPIC decreased slightly mainly due to a full year of Hyster-Yale Maximal gross profit during 2019 compared with only seven months subsequent to the acquisition date in 2018, which included $4.0 million of unfavorable one-time purchase accounting adjustments made in the third quarter of 2018 associated with the acquisition.

Bolzoni's operating profit decreased mainly as a result of $2.5 million of restructuring costs in 2019 related to the transfer of Bolzoni's North America attachment manufacturing to Sulligent, Alabama and unfavorable foreign currency movements. The restructuring costs include plant rearrangement, changes to information technology infrastructure and severance expenses.

Nuvera's operating loss decreased compared with the prior year mainly as a result of increased product development funding received from third-parties.

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The Company recognized net income attributable to stockholders of $35.8 million in 2019 compared with $34.7 million in 2018. The increase was primarily the result of higher operating profit and favorable mark-to-market adjustments on an equity investment in a third-party. These items were partially offset by the absence of favorable tax adjustments related to the Tax Reform Act in 2018 and higher interest expense from higher borrowing levels during 2019 compared with 2018. See "Financial Review - Income Taxes" and Note 7 to the consolidated financial statements in this Annual Report on Form 10-K for further discussion of income taxes.

2018 Compared with 2017

The following table identifies the components of change in revenues for 2018 compared with 2017:

		Revenues
2017	$	2,885.2
Increase in 2018 from:		
Unit volume and product mix		94.6
Maximal revenues		48.9
Parts		36.2
Unit price		35.4
Foreign currency		29.5
Bolzoni revenues		36.5
Other		(0.5)
Nuvera revenues		13.3
2018	**$**	**3,179.1**

Revenues increased 10.2% to $3,179.1 million in 2018 from $2,885.2 million in 2017. The increase was mainly due to higher unit and parts volume, favorable currency movements and improved pricing to offset material cost increases in the lift truck business. In addition, the acquisition of Maximal and increased Bolzoni revenues also contributed to the improvement in revenues.

Revenues in the Americas increased primarily as a result of increased unit shipments. Revenues increased primarily from higher sales of Class 4 and Class 5 internal combustion engine lift trucks, including the XT/MX standard truck and Big Trucks. In addition, increased parts volume and improved pricing to offset material cost increases also contributed to the increase in America's revenues.

EMEA's revenues increased mainly as a result of favorable currency movements of $36.6 million from the translation of sales into U.S. dollars and increased parts volume and improved pricing to offset material cost increases.

Revenues in JAPIC increased primarily as a result of the acquisition of Maximal, higher unit and parts volume, and favorable currency movements of $1.9 million from the translation of sales into U.S. dollars.

Bolzoni's revenues increased mainly as a result of higher volume in the Americas and EMEA market and favorable foreign currency movements of $10.2 million.

During the fourth quarter of 2018, Nuvera recognized revenue which had previously been deferred related to BBR units due to the inability to estimate total future warranty costs. The BBRs are new technology and the design of the product continues to evolve. The Company determined sufficient data was available in the fourth quarter of 2018 to reasonably estimate the future costs related to the sale of BBR units, including warranty costs, which were also recorded during the fourth quarter of 2018.

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The following table identifies the components of change in operating profit for 2018 compared with 2017:

	Operating Profit
2017	$ 74.1
Increase (decrease) in 2018 from:	
Lift truck selling, general and administrative expenses	(31.5)
Lift truck gross profit	(10.6)
Nuvera operations	3.7
Bolzoni operations	3.1
2018	**$ 38.8**

The Company recognized operating profit of $38.8 million in 2018 compared with $74.1 million in 2017. The decrease in operating profit was mainly due to an increase in lift truck selling, general and administrative expenses primarily related to employee-related costs for sales and development of new products and the acquisition of Maximal in 2018. Lift truck gross profit decreased mainly as a result of higher material and manufacturing costs, partially offset by improved pricing and higher unit and parts shipments in 2018.

Operating profit in the Americas decreased primarily as a result of lower gross profit and higher selling, general and administrative expenses. The decrease in gross profit was mainly due to material and freight cost inflation and tariffs, net of price increases. The Americas implemented price increases during the first half of the year to offset higher than planned material cost inflation and aluminum and steel tariffs. However, operating results continue to reflect the lag of a $25.7 million shortfall in 2018 between fully realizing those price increases and when the tariffs and material cost increases were first realized. Selling, general and administrative expenses increased mainly from higher employee-related costs for sales and development of new products, as well as higher acquisition-related expenses.

EMEA's operating profit was flat due to higher gross profit from favorable currency movements of $12.3 million and improved pricing, which was partially offset by higher material and manufacturing cost inflation. The increase in gross profit was offset by higher selling, general and administrative expenses, including $2.6 million of unfavorable foreign currency movements and higher sales costs to support the Company's strategic initiatives.

The operating loss in JAPIC increased mainly as a result of increased selling, general and administrative expenses primarily from expenses incurred at Maximal since the date of acquisition and higher sales costs to support the Company's strategic initiatives.

Bolzoni's operating profit improved primarily due to higher gross profit, partially offset by higher selling, general and administrative expenses.

Nuvera's operating loss decreased in 2018 from 2017 primarily due to higher product development funding from third-party customers and the absence of the 2017 impairment charge of $4.9 million on Nuvera's long-lived assets. This was partially offset by higher development and production start-up expenses for its third-party development agreements.

The Company recognized net income attributable to stockholders of $34.7 million in 2018 compared with $48.6 million in 2017. The decrease was primarily the result of lower operating profit, the effect of the favorable HYGFS equity income in 2017 related to the Tax Reform Act and unfavorable mark-to-market adjustments on an equity investment in a third-party. This decrease was partially offset by changes in discrete tax adjustments in the 2018 compared with 2017. See "Financial Review - Income Taxes" and Note 7 to the consolidated financial statements in this Annual Report on Form 10-K for further discussion of income taxes.

Income taxes

The income tax provision includes U.S. federal, state and local, and non-U.S. income taxes. In determining the effective income tax rate, the Company analyzes various factors, including annual earnings, the laws of taxing jurisdictions in which the earnings were generated, the impact of state and local income taxes, the ability to use tax credits, net operating loss and capital loss carryforwards, and available tax planning alternatives. Discrete items, including the effect of changes in tax laws, tax rates, and certain items with respect to valuation allowances or other unusual or non-recurring tax adjustments are reflected in the interim period in which they occur.

(Tabular Amounts in Millions, Except Per Share, Percentage Data and as Otherwise Noted)

Deferred tax assets and liabilities are recognized based on the future tax consequences attributable to temporary differences that exist between the financial statement carrying value of assets and liabilities and their respective tax bases, and operating loss and tax credit carryforwards on a taxing jurisdiction basis. The Company measures deferred tax assets and liabilities using enacted tax rates that will apply in the years in which it expects the temporary differences to be recovered or paid.

The authoritative guidance for income taxes requires a reduction of the carrying amounts of deferred tax assets by recording a valuation allowance if, based on the available evidence, it is more likely than not (defined as a likelihood of more than 50%) such assets will not be realized. The valuation of deferred tax assets requires judgment in assessing the likely future tax consequences of events that have been recognized in the Company's financial statements or tax returns and future profitability. The Company's accounting for deferred tax consequences represents its best estimate of those future events. Changes in the Company's estimates, due to unanticipated events or otherwise, could have a material effect on its financial condition and results of operations. The Company continually evaluates its deferred tax assets to determine if a valuation allowance is required.

On December 22, 2017, the President of the United States signed into law the Tax Reform Act. The Tax Reform Act significantly revised the U.S. corporate income tax regime by, among other things, lowering the U.S. corporate income tax rate from 35% to 21% effective January 1, 2018, repealing the deduction for domestic production activities, allowing the immediate expensing of certain qualified capital expenditures, implementing a territorial tax system and imposing a one-time transition tax on certain unremitted earnings of non-U.S. subsidiaries. As a result of the Tax Reform Act in 2017, the Company recorded provisional tax effects of $38.2 million, comprised of $33.1 million of tax expense due to the transition tax on the unremitted earnings and profits of non-U.S. subsidiaries and $5.1 million of tax expense due to the effects on the Company's deferred tax assets and liabilities as of December 31, 2017. The Company has since finalized its calculation of earnings and profits, including the amounts held in cash or other specified assets and its calculation of available foreign tax credits consistent with the additional regulatory guidance issued during 2018 and 2019, resulting in a reduction in tax expense of $4.4 million and an increase in tax expense of $0.1 million in 2018 and 2019, respectively.

After the utilization of existing tax credits, the Company will pay cash taxes, including state income taxes, of $17.7 million with respect to the transition tax payable over an installment period of eight years beginning in 2018. During 2019, the Company provided for the anticipated withholding taxes on unremitted non-U.S. earnings for which no reinvestment plan has been identified and that may be repatriated in the foreseeable future. As such, the Company has provided a deferred tax liability with respect to these earnings of $1.7 million at December 31, 2019.

A reconciliation of the consolidated federal statutory and reported income tax is as follows for the years ended December 31:

	2019	2018	2017
Income before income taxes	**$ 47.9**	$ 36.6	$ 93.8
Statutory taxes at 21% (35% in 2017)	**$ 10.1**	$ 7.7	$ 32.8
Permanent adjustments:			
Federal income tax credits	**(2.8)**	(2.9)	(1.6)
Non-U.S. rate differences	**(0.9)**	(2.3)	(7.8)
Equity interest earnings	**(1.5)**	(1.7)	(8.1)
State income taxes	**(0.2)**	0.6	1.1
Valuation allowance	**0.5**	3.0	3.4
Global intangible low-taxed income	**1.6**	1.2	—
Base-erosion and anti-abuse tax	**1.4**	—	—
Other	**3.1**	1.0	(0.2)
	$ 1.2	$ (1.1)	$ (13.2)

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	2019	2018	2017
Discrete items:			
Tax Reform Act	**0.1**	(4.4)	38.2
Provision to return adjustments	**(1.0)**	(0.6)	0.6
Valuation allowance	**0.3**	—	(3.3)
Sale of non-U.S. investment	**—**	—	(9.1)
Other	**0.6**	0.7	(1.1)
	$ —	$ (4.3)	$ 25.3
Income tax provision	**$ 11.3**	$ 2.3	$ 44.9
Reported income tax rate	**23.6%**	6.3%	47.9%

The Company's effective income tax rate differs from the U.S. federal statutory tax rate primarily as a result of federal research and energy credits, income taxed in non-U.S. jurisdictions, equity interest earnings, global intangible low-taxed income, base-erosion and anti-abuse tax and changes in valuation allowances primarily in non-U.S. jurisdictions. Other permanent adjustments include non-deductible compensation and anticipated withholding tax on unremitted non-U.S. earnings.

In addition, the Company recognized the effect of the Tax Reform Act as discrete adjustments. The effect of other discrete items on the reported income tax rate was as follows:

During 2017, the Company recognized a tax benefit of $9.1 million and a tax expense of $1.4 million for unrecognized tax benefits from an internal sale of a subsidiary between consolidated companies resulting in the repatriation of non-U.S. accumulated earnings taxed at higher rates. In addition, the Company settled various federal obligations in Brazil through the utilization of its federal net operating loss carryforwards for which a valuation allowance was previously provided. As a result of the utilization of the underlying deferred tax assets, the Company released the associated valuation allowance previously provided of $4.7 million. This was partly offset by a $1.6 million valuation allowance provided against deferred tax assets in China where the Company has determined that such deferred tax assets no longer meet the more likely than not standard for realization.

See Note 7 to the consolidated financial statements in this Annual Report on Form 10-K for further discussion of income taxes.

LIQUIDITY AND CAPITAL RESOURCES

Cash Flows

The following tables detail the change in cash flow for the years ended December 31:

	2019	2018	Change
Operating activities:			
Net income	**$ 36.6**	$ 34.3	$ 2.3
Depreciation and amortization	**43.3**	44.0	(0.7)
Stock-based compensation	**8.2**	5.7	2.5
Dividends from unconsolidated affiliates	**5.1**	22.2	(17.1)
Other	**10.1**	(2.4)	12.5
Working capital changes, excluding the effect of business acquisitions	**(26.6)**	(36.2)	9.6
Net cash provided by operating activities	**76.7**	67.6	9.1

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
(Tabular Amounts in Millions, Except Per Share, Percentage Data and as Otherwise Noted)

	2019	2018	Change
Investing activities:			
Expenditures for property, plant and equipment	**(49.7)**	(38.8)	(10.9)
Proceeds from the sale of property, plant and equipment	**7.7**	5.9	1.8
Business acquisitions, net of cash acquired	**—**	(78.0)	78.0
Net cash used for investing activities	**(42.0)**	(110.9)	68.9
Cash flow before financing activities	**$ 34.7**	$ (43.3)	$ 78.0

Net cash provided by operating activities increased $9.1 million in 2019 compared with 2018, primarily as a result of the change in other operating activities, as the Company resolved insurance matters for cash settlements in the fourth quarter of 2019, in addition to working capital changes and higher net income. In addition, 2018 includes dividends from HYGFS resulting from a one-time benefit associated with the Tax Reform Act.

The change in net cash used for investing activities during 2019 compared with 2018 is mainly the result of the acquisition of Maximal in the second quarter of 2018.

	2019	2018	Change
Financing Activities:			
Net reduction of long-term debt and revolving credit agreements	**$ (29.8)**	$ (65.7)	$ 35.9
Cash dividends paid	**(21.0)**	(20.4)	(0.6)
Financing fees paid	**(0.4)**	(0.6)	0.2
Other	**(0.4)**	(0.9)	0.5
Net cash used for financing activities	**$ (51.6)**	$ (87.6)	$ 36.0

The change in net cash used for financing activities of $36.0 million in 2019 compared with 2018 was primarily related to the repayment of debt at Hyster-Yale Maximal in 2018.

Financing Activities

The Company has a $240.0 million secured, floating-rate revolving credit facility (the "Facility") that expires in April 2022. There were $0.3 million of borrowings outstanding under the Facility at December 31, 2019. The availability under the Facility at December 31, 2019 was $234.7 million, which reflects reductions of $5.0 million for letters of credit and other restrictions. As of December 31, 2019, the Facility consisted of a U.S. revolving credit facility of $150.0 million and a non-U.S. revolving credit facility of $90.0 million. The obligations under the Facility are generally secured by a first lien on the working capital assets of the borrowers in the Facility, which include but are not limited to, cash and cash equivalents, accounts receivable and inventory (the "Facility Collateral") and a second lien on the Term Loan Collateral (defined below). The approximate book value of assets held as collateral under the Facility was $900 million as of December 31, 2019.

Borrowings bear interest at a floating rate based on a base rate or LIBOR, as defined in the Facility, plus an applicable margin. The applicable margins, as of December 31, 2019, for U.S. base rate loans and LIBOR loans were 0.50% and 1.50%, respectively. The applicable margin, as of December 31, 2019, for non-U.S. base rate loans and LIBOR loans was 1.50%. The applicable interest rates for borrowings outstanding under the Facility on December 31, 2019 was 1.50%. The Facility also required the payment of a fee of 0.250% per annum on the unused commitment as of December 31, 2019.

The Facility includes restrictive covenants, which, among other things, limit additional borrowings and investments of the Company and its subsidiaries subject to certain thresholds, as set forth in the Facility, and limits the payment of dividends. If average availability for both total and U.S. revolving credit facilities, on a pro forma basis, is greater than 15% and less than or equal to 20%, the Company may pay dividends subject to achieving a minimum Fixed Charge Coverage Ratio of 1.00 to 1.00, as defined in the Facility. If the average availability is greater than 20% for both total and U.S. revolving credit facilities, on a pro forma basis, the Company may pay dividends without any minimum Fixed Charge Coverage Ratio requirement. The Facility also requires the Company to achieve a minimum Fixed Charge Coverage Ratio in certain circumstances in which total excess availability is less than 10% of the total commitments under the Facility or excess availability under the U.S. revolving credit facility is less than 10% of the U.S. revolver commitments, as defined in the Facility. At December 31, 2019, the Company was in compliance with the covenants in the Facility.

The Company also has a $200.0 million term loan (the "Term Loan"), which matures in May 2023. The Term Loan requires quarterly principal payments on the last business day of each March, June, September and December in an amount equal to $2.5 million. The final principal repayment is due on May 30, 2023. The Company may also be required to make mandatory prepayments, in certain circumstances, as provided in the Term Loan. At December 31, 2019, there was $175.0 million of principle outstanding under the Term Loan which has been reduced in the consolidated balance sheet by $2.8 million of discounts and unamortized deferred financing fees.

The obligations under the Term Loan are generally secured by a first priority lien on the present and future shares of capital stock, material real property, fixtures and general intangibles consisting of intellectual property (collectively, the "Term Loan Collateral") and a second priority lien on the Facility Collateral. The approximate book value of assets held as collateral under the Term Loan was $600 million as of December 31, 2019.

Borrowings under the Term Loan bear interest at a floating rate, which can be a base rate or Eurodollar rate, as defined in the Term Loan, plus an applicable margin. The applicable margin, as provided in the Term Loan, is 2.25% for U.S. base rate loans and 3.25% for Eurodollar loans. The interest rate on the amount outstanding under the Term Loan at December 31, 2019 was 5.05%. In addition, the Term Loan includes restrictive covenants, which, among other things, limit additional borrowings and investments of the Company subject to certain thresholds. The Term Loan limits the payment of regularly scheduled dividends and other restricted payments to $50.0 million in any fiscal year, unless the consolidated total net leverage ratio, as defined in the Term Loan, does not exceed 1.75 to 1.00 at the time of the payment. At December 31, 2019, the Company was in compliance with the covenants in the Term Loan.

The Company incurred fees and expenses of $0.4 million, $0.6 million and $4.7 million in 2019, 2018 and 2017, respectively. These fees related to amending the Facility and entry into and amending the Term Loan. These fees were deferred and are being amortized as interest expense over the term of the applicable debt agreements. Fees related to the Term Loan are presented as a direct deduction of the corresponding debt.

The Company had other debt outstanding, excluding finance leases, of approximately $93.5 million at December 31, 2019. In addition to the excess availability under the Facility, the Company had remaining availability of $18.2 million related to other non-U.S. revolving credit agreements.

The Company believes funds available from cash on hand, the Facility, other available lines of credit and operating cash flows will provide sufficient liquidity to meet its operating needs and commitments during the next twelve months and until the expiration of the Facility in April 2022.

(Tabular Amounts in Millions, Except Per Share, Percentage Data and as Otherwise Noted)

Contractual Obligations, Contingent Liabilities and Commitments

Following is a table summarizing the contractual obligations as of December 31, 2019:

	Payments Due by Period						
Contractual Obligations	**Total**	**2020**	**2021**	**2022**	**2023**	**2024**	**Thereafter**
Term Loan	$ 175.0	$ 10.0	$ 10.0	$ 10.0	$ 145.0	$ —	$ —
Variable interest payments on Term Loan	27.9	9.0	8.2	7.7	3.0	—	—
Revolving credit agreements	7.7	7.7	—	—	—	—	—
Variable interest payments on revolving credit agreements	0.1	0.1	—	—	—	—	—
Other debt	86.1	57.0	23.7	5.4	—	—	—
Variable interest payments on other debt	2.1	1.6	0.5	—	—	—	—
Finance lease obligations including principal and interest	21.8	9.0	6.2	3.2	2.3	1.0	0.1
Operating leases	96.9	21.2	16.8	13.7	10.4	7.6	27.2
Tax Reform Act transition tax liability	13.1	—	1.2	1.4	2.6	3.5	4.4
Purchase and other obligations	624.8	614.4	3.5	3.2	3.7	—	—
Total contractual cash obligations	$ 1,055.5	$ 730.0	$ 70.1	$ 44.6	$ 167.0	$ 12.1	$ 31.7

After the utilization of existing tax credits, the Company will pay total cash taxes, including state income taxes, of $17.7 million with respect to the transition tax payable over an installment period of eight years, beginning in 2018. During 2019, the Company has provided for the anticipated withholding taxes on unremitted non-U.S. earnings for which no reinvestment plan has been identified and that may be repatriated in the foreseeable future. As such, the Company has provided a deferred tax liability with respect to these earnings of $1.7 million at December 31, 2019.

The Company has a long-term liability of approximately $19.6 million for unrecognized tax benefits, including interest and penalties, as of December 31, 2019. At this time, the Company is unable to make a reasonable estimate of the timing of payments due to, among other factors, the uncertainty of the timing and outcome of the Company's audits.

An event of default, as defined in the agreements governing the Facility, the Term Loan, other debt agreements, and in operating and capital lease agreements, could cause an acceleration of the payment schedule. No such event of default has occurred or is anticipated under these agreements.

The Company's interest payments are calculated based upon the anticipated payment schedule and the December 31, 2019 applicable rates and applicable margins as described in the Facility and other debt agreements. A 1/8% increase in the LIBOR rate would increase the Company's estimated total interest payments on debt by $0.2 million.

The purchase and other obligations are primarily for accounts payable, open purchase orders and accrued payroll and incentive compensation.

Pension funding can vary significantly each year due to plan amendments, changes in the market value of plan assets, legislation and the Company's funding decisions to contribute any excess above the minimum legislative funding requirements. As a result, pension funding has not been included in the table above. Pension benefit payments are made from assets of the pension plans. The Company expects to contribute approximately $0.4 million and $3.2 million to its U.S. and non-U.S. pension plans, respectively, in 2020.

In addition, the Company has recourse and repurchase obligations with a maximum undiscounted potential liability of $179.7 million at December 31, 2019. Recourse and repurchase obligations primarily represent contingent liabilities assumed by the Company to support financing agreements made between the Company's customers and third-party finance companies for the customer’s purchase of lift trucks from the Company. For these transactions, the Company or a third-party finance company retains a perfected security interest in the lift truck, such that the Company would take possession of the lift truck in the event it would become liable under the terms of the recourse and repurchase obligations. Generally, these commitments are due upon demand in the event of default by the customer. The security interest is normally expected to equal or exceed the amount of the commitment. To the extent the Company would be required to provide funding as a result of these commitments, the Company believes the value of its perfected security interest and amounts available under existing credit facilities are adequate to meet these commitments in the foreseeable future.

(Tabular Amounts in Millions, Except Per Share, Percentage Data and as Otherwise Noted)

The amount of the recourse or repurchase obligations changes over time as obligations under existing arrangements expire and new obligations arise in the ordinary course of business. Losses anticipated under the terms of the recourse or repurchase obligations were not significant at December 31, 2019 and reserves have been provided for such losses in the consolidated financial statements included elsewhere in this Annual Report on Form 10-K. See also “Related Party Transactions” below.

Capital Expenditures

The following table summarizes actual and planned capital expenditures:

	Planned 2020	Actual 2019	Actual 2018
Lift truck business	$ 63.6	**$ 37.8**	$ 31.8
Bolzoni	11.4	**5.6**	4.2
Nuvera	11.1	**6.3**	2.8
	$ 86.1	**$ 49.7**	$ 38.8

Planned expenditures in 2020 are primarily for product development and tooling, improvements to information technology infrastructure, improvements at manufacturing locations and manufacturing equipment. The principal sources of financing for these capital expenditures are expected to be internally generated funds and bank financing.

Capital Structure

	December 31		
	2019	2018	Change
Cash and cash equivalents	**$ 64.6**	$ 83.7	$ (19.1)
Other net tangible assets	**632.6**	601.3	31.3
Intangible assets	**60.1**	67.7	(7.6)
Goodwill	**106.7**	108.3	(1.6)
Net assets	**864.0**	861.0	3.0
Total debt	**(287.0)**	(301.5)	14.5
Total equity	**$ 577.0**	$ 559.5	$ 17.5
Debt to total capitalization	**33%**	35%	(2)%

RELATED PARTY TRANSACTIONS

See Note 19 to the consolidated financial statements in this Annual Report on Form 10-K for further discussion of related party transactions.

INVESTOR PERSPECTIVE

The Company is currently undertaking the largest set of programs in its history. These programs are expected to have a transformational impact on the Company’s competitiveness, market position and economic performance over the next three to four years.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
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For some time, the Company has been focused on six core strategies:

1. Provide the lowest cost of ownership while enhancing productivity for customers.
2. Be the leader in the delivery of industry- and customer-focused solutions.
3. Be the leader in independent distribution.
4. Grow in emerging markets.
5. Be the leader in the attachments business.
6. Be a leader in fuel cells and their applications.

The projects required to execute fully on these strategies have been, in general, initiated over the last several years and many are now moving toward completion. Further, many of the projects supporting these strategies are inter-related and succeeding in one will foster success in others. In total, these projects have required, and continue to require, significant up-front expense and capital expenditure investment. The various projects cover a broad range of the Company's activities, including product development, supply chain, IT, manufacturing, sales and marketing for each of the Company’s three major businesses: Lift Truck, Bolzoni and Nuvera.

Since 2017, these investments, both expense and capital, have increased significantly. Further increased investments are expected to continue to be made, with capital expenditures expected to be substantially higher in 2020 than in 2019. The return from these investments is expected to increase over the next three to four years. In this context, Lift Truck's operating profit is expected to improve significantly in 2020 over 2019. Results in the first half of the year are expected to be higher than the first half of 2019, with further, substantial improvement expected in the second half of the year compared with both the second half of 2019 and the first half of 2020. Further improved results are expected with significant increases through 2023. Lift Truck's objective is to achieve its target of 7% operating profit margin in this period assuming reasonable market conditions continue. Likewise, Bolzoni’s operating profit is expected to increase in 2020, primarily as a result of the absence of $2.5 million of restructuring charges for its Americas operations, with further improvements in the following years, leading to achievement of a 7% operating profit margin target. Nuvera’s results are expected to improve in 2020 over 2019, with shipments expected to ramp up throughout the second half of 2020. Results are expected to improve significantly at Nuvera over the 2021 to 2023 time period. At each of these three businesses, the investments being undertaken are expected to lead to increased operating profit through higher volumes, decreased product costs and improved pricing, partially offset by a higher level of operating expense in future years. Overall, consolidated operating profit and net income in 2020 are expected to increase substantially over 2019.

At Lift Truck, product programs are expected to lay the groundwork for enhanced market position by providing lower cost of ownership and enhanced productivity for the Company’s customers. At the core of these programs is a new set of modular and scalable product families covering both internal combustion engine and electric trucks, which will provide customers with enhanced flexibility for meeting their application needs combined with the benefit of lowest total cost of ownership. The introduction of the first of these products is expected in the second half of 2020 with the launch of a new range of counterbalanced trucks. This range will be expanded comprehensively to include larger counterbalanced capacities, Big Trucks and warehouse trucks. A further major initiative in product offerings will come from the introduction of trucks manufactured by Hyster-Yale Maximal in China. A line of trucks from Hyster-Yale Maximal has been designed to provide high quality and reliable, lower-intensity trucks for global markets and standard trucks for the Chinese market. These trucks are being progressively launched globally under the Hyster® UT and Yale® UX brands to serve lower-intensity customer applications. The launch began in the JAPIC, Brazil and Latin America markets during the 2019 fourth quarter and is expected to expand over the course of 2020 to all countries. In addition, Lift Truck’s partner in India is expected to increase local production of larger trucks. In 2019, a new end rider and a new automated Reach Truck were launched in the North America market, and a range of new lower-cost Class 3 lift trucks, including walkie and stacker global products, were launched in certain markets. All of these new products are expected to have a significant impact on results in 2020. In early 2020, Lift Truck launched a new 3- to 5-ton integrated lithium-ion engine lift truck with numerous ergonomic benefits for the Americas and EMEA markets, and it expects to launch a 7- to 9-ton version later in the year. In addition, the Company expects to launch a newer-model Reach Truck for the Americas market late in the first quarter of 2020. To further enhance productivity for customers, Lift Truck is continuing to develop automation solutions for warehouse trucks, initially in combination with industry partners. Some of these products are already in the market today, but new solutions and customers are expected to be developed progressively over the next several years. Lift Truck continues to expand sales of telemetry products, and new generations of lift trucks will offer a fully integrated telematics solution. Finally, Lift Truck anticipates introducing new fuel cell BBRs for Class 1, 2 and 3 forklift trucks over the next few years, beginning with the first model in the second quarter of 2020, that are expected over time to move the fuel cell BBR business to break-even.

The introduction of these new products will lead to significant changes in supply chain sourcing and in the Company's various manufacturing facilities around the world. Consolidated component volume sourced globally from reliable partners is expected to reduce costs and improve quality as these new products are brought to market over the next few years. Lift Truck's largest manufacturing facilities in Berea, Craigavon and Greenville are undergoing significant changes and are expected to have reduced costs and improved productivity while most other plants will see more modest changes. China production activities are expected to be consolidated at the Hyster-Yale Maximal facility. The first phase of this transition occurred during the 2019 fourth quarter, and the second phase is expected to be completed by the end of 2020.

Lift Truck currently has over 400 different forklift models in its range, including Hyster-Yale Maximal models, which are reinforced by its capability to customize these trucks to meet specific customer needs. The modular nature of the new products being introduced will enhance the Company's ability to meet customer needs at lowest cost and in more detail, both at the industry level and at the individual customer level. To achieve the full expected benefit from these programs, the Company continues to make substantial expense investments in its sales and marketing organizations to realign teams around industry groupings, with spending on this program almost at mature levels. Within marketing, industry-focused resources have been added to develop industry strategies. The higher-priority industry strategies have been completed for North America and Europe. Most of the strategies were completed for all countries, or groups of countries, during 2019 but will mature and be enhanced over future years. To support execution of these industry strategies, Lift Truck has invested in additional industry-focused sales capabilities to support its dealers. This industry-focused structure has been highly successful in its National Account direct sales program and is now being deployed with the new dealer support teams. These investments are largely in place in North America, and to a lesser degree in EMEA. Additional sales capabilities are expected to be added in other areas around the world over the next year, while the Company will look to reduce costs in other areas to contain spending. In total, the Company believes that these projects will put it in a position to be a leader in the delivery of industry- and customer-focused solutions worldwide.

While the new sales teams will support dealers' sales efforts, the Company also intends to continue to upgrade its global dealer capabilities. A core objective is to have dealers that are fully capable of maximizing the potential of the Hyster® and Yale® brands in their territories. These dealers will be supported by Lift Truck's commitment to helping dealers strengthen the excellence of their activities in all areas of their business, including leadership, sales, parts, service, rental, leasing and remarketing. To help these programs have maximum impact, the Company intends to invest over the next few years in enhanced digital customer experience systems. Taken together, these initiatives amount to a new, uniquely competitive way of serving the markets around the world.

Bolzoni is also pursuing very aggressive projects to expand its global market position. These projects include strengthening Bolzoni's ability to serve the North America market by having responsibility for the Sulligent plant, where it is now manufacturing attachments and continuing the plant's support of Lift Truck through the supply of cylinders and various other components. In 2019, Bolzoni phased out production at its Homewood, Illinois facility and completed the shift of manufacturing to Sulligent. Bolzoni is still maintaining a distribution center and certain other operations in Homewood. This restructuring was completed in 2019, and Bolzoni does not anticipate any further restructuring-related costs in 2020.

There is a large opportunity for market share growth in the Americas market for attachments. To help capture this, Bolzoni plans to introduce a broader range of locally produced attachments with shorter lead times to serve its customer base. Bolzoni also is in the process of increasing its sales, marketing and product support capabilities in North America, and is establishing a small assembly function in Brazil to serve the Latin America market. In addition, it has developed a standard product line sourced from one of its factories in China to supplement its premium line. Further, Bolzoni has plans to continue to expand this standard product line. Bolzoni's current outstanding premium line of products coupled with these standard products and an industry-focused strategy are expected to give Bolzoni the ability to increase its sales significantly in the Americas, JAPIC and EMEA regions. These new programs are expected to increase Bolzoni's market position and profitability, especially over the next two to three years.

Nuvera is approaching the point where it will move from being a venture business focused on commercializing leading technology to a product-based company serving not only the forklift truck market, but also heavy-duty applications, such as buses and trucks and applications in the automotive sector, with an expanding line of developed products. Nuvera expects its core technology to move to a new generation of fuel cell stack design over the next year with broad application in each of these markets. It successfully certified its first 45kW engine for China in 2019 and the vehicle certification is in process. Nuvera is focused on continuously improving the quality and cost of its fuel cell engines. These performance and cost factors are expected to reach target objectives over the next two years. With the transfer of the responsibility for development of non-fuel-cell engine components and the overall assembly of Class 1 and Class 2 BBRs to Lift Truck during 2019, Nuvera is now focused entirely on fuel cell stacks and engines. To improve its cost base, Nuvera continues to work on standardizing its products, developing low-cost suppliers and automating various elements of stack production. Robotic stack assembly lines have been in development for some time, and Nuvera brought the first online during the fourth quarter of 2019. In overview, Nuvera’s objective is to reduce its loss in 2020 and to achieve break-even in the near to medium term. In the long term, Nuvera is expected to contribute substantially to the Company's overall earnings.

In summary, the Company believes it is at an inflection point in its business. Results in 2019 reflected continued investment in the Company's strategic programs and progress on their implementation. In 2020, the Company expects the maturation of these investments to begin, and as a result, 2020 operating profit and net income are expected to increase significantly over 2019. Efforts to abate the most severe shortages from key suppliers in the United States have now been successful, and the supplier shortages that occurred during 2019 were generally resolved by the end of the year, with some modest lingering effects in the first quarter of 2020. The status of tariffs has been changing continuously and, although the Company is still experiencing significant additional costs from both the Section 232 and Section 301 tariffs, the Section 301 tariffs have been abated somewhat by government-granted exclusions and partly offset by the Company’s supply chain group securing alternative non-Chinese suppliers and negotiating price reductions.

For the 2020 full year, consolidated cash flow before financing activities is expected to increase significantly over 2019.

In 2020 and 2021, a considerable portion of the new projects outlined above are expected to have reached completion for all three companies and the Company believes the full impact of these programs can lead to profitability improvements for a number of years to come. The remainder of the programs are expected to reach maturity mainly in 2022 and 2023, although a few, particularly those involving dealer structure and excellence, are more in the nature of continuous improvement projects rather than projects which reach maturity at a given time. Of course, the absolute level of profitability will reflect actual market demand levels, which showed some softening in 2019, particularly in EMEA. While markets are still at robust levels, the market appears to be in a downturn, which is currently projected to be moderate and of limited duration. As a result, in 2020, the Company is currently forecasting strong but lower forklift market levels in all geographic segments. The Company continues to forecast a resolution to the Brexit transition in a way that does not significantly harm its business prospects.

The effects of the Coronavirus epidemic continue to evolve daily, and there is much uncertainty with regard to the ramifications of this situation. Currently, as a result of the extended Chinese New Year and government mandates associated with containing the Coronavirus epidemic in China, the startup of production at the Company's Chinese facilities has been delayed, but is expected to ramp up over the next few weeks. However, this timing is contingent on the appropriate utilities, transportation and other support services being in place, as well as the availability of components from suppliers. Further, the impact and the spread of the virus, which is not predictable at this time, may affect the Company's operations in other areas of the world, including Italy. The Company will continue to monitor the global Coronavirus situation, and its effect on the Company's businesses, and it will take further action as necessary to maintain the health and safety of its global employees and partners, and to address any production and supply chain issues which may emerge.

The Company believes that investors who are focused on mid-term business improvement in market position and profitability will find that the Company’s focus is consistent with those investment objectives.

RECENTLY ISSUED ACCOUNTING STANDARDS

For information regarding recently issued accounting standards refer to Note 2 to the Consolidated Financial Statements in this Form 10-K.

EFFECTS OF FOREIGN CURRENCY

The Company operates internationally and enters into transactions denominated in foreign currencies. As a result, the Company is subject to the variability that arises from exchange rate movements. The effects of foreign currency fluctuations on revenues, operating profit and net income are addressed in the previous discussions of operating results. The Company's use of foreign currency derivative contracts is discussed in Item 7A, "Quantitative and Qualitative Disclosures About Market Risk," of this Form 10-K.

FORWARD-LOOKING STATEMENTS

The statements contained in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere throughout this Annual Report on Form 10-K that are not historical facts are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements are made subject to certain risks and uncertainties, which could cause actual results to differ materially from those presented. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. The Company undertakes no obligation to publicly revise these forward-looking statements to reflect events or circumstances that arise after the date hereof. Among the factors that could cause plans, actions and results to differ materially from current expectations are, without limitation: (1) reduction in demand for lift trucks, attachments and related aftermarket parts and service on a global basis, (2) delays in delivery or increases in costs, including transportation costs, the imposition of tariffs, or the renewal of tariff exclusions, of raw materials or sourced products and labor or changes in or unavailability of quality suppliers, (3) delays in manufacturing and delivery schedules, (4) the successful commercialization of Nuvera's technology, (5) customer acceptance of pricing, (6) the political and economic uncertainties in the countries where the Company does business, (7) the ability of dealers, suppliers and end-users to obtain financing at reasonable rates, or at all, as a result of current economic and market conditions, (8) exchange rate fluctuations and monetary policies and other changes in the regulatory climate in the countries in which the Company operates and/or sells products, (9) bankruptcy of or loss of major dealers, retail customers or suppliers, (10) customer acceptance of, changes in the costs of, or delays in the development of new products, (11) introduction of new products by, or more favorable product pricing offered by, competitors, (12) product liability or other litigation, warranty claims or returns of products, (13) the effectiveness of the cost reduction programs implemented globally, including the successful implementation of procurement and sourcing initiatives, (14) changes mandated by federal, state and other regulation, including tax, health, safety or environmental legislation, (15) unfavorable effects of geopolitical and legislative developments on global operations, including without limitation, the United Kingdom's exit from the European Union, the entry into new trade agreements and the imposition of tariffs and/or economic sanctions, and (16) unfavorable effects of the Coronavirus on either the Company's or its suppliers plants' capabilities to produce and ship products if the epidemic spreads or quarantines are extended.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

INTEREST RATE RISK

The Company has entered into certain financing arrangements that require interest payments based on floating interest rates. As such, the Company's financial results are subject to changes in the market rate of interest. The Company has entered into interest rate swap agreements to reduce the exposure to changes in the market rate of interest. The Company does not enter into interest rate swap agreements for trading purposes. Terms of the interest rate swap agreements require the Company to receive a variable interest rate and pay a fixed interest rate. See also Note 9 to the Consolidated Financial Statements in this Annual Report on Form 10-K.

For purposes of risk analysis, the Company uses sensitivity analysis to measure the potential loss in fair value of financial instruments sensitive to changes in interest rates. The Company assumes that a loss in fair value is either a decrease to its assets or an increase to its liabilities. The fair value of the Company's interest rate swap agreements was a net liability of $2.1 million at December 31, 2019. A hypothetical 10% decrease in interest rates would cause a decrease in the fair value of interest rate swap agreements and the resulting fair value would be a liability of $2.6 million.

FOREIGN CURRENCY EXCHANGE RATE RISK

The Company operates internationally and enters into transactions denominated in foreign currencies. As such, the Company's financial results are subject to the variability that arises from exchange rate movements. The Company uses forward foreign currency exchange contracts to partially reduce risks related to transactions denominated in foreign currencies and not for trading purposes. These contracts generally mature within 36 months and require the companies to buy or sell euros, U.S. dollars, Japanese yen, British pounds, Mexican pesos, Australian dollars, Swedish kroner, Brazilian real and Chinese renminbi for its functional currency at rates agreed to at the inception of the contracts. The fair value of these contracts was a net liability of $19.8 million at December 31, 2019. See also Note 9 to the Consolidated Financial Statements in this Annual Report on Form 10-K.

For purposes of risk analysis, the Company uses sensitivity analysis to measure the potential loss in fair value of financial instruments sensitive to changes in foreign currency exchange rates. The Company assumes that a loss in fair value is either a decrease to its assets or an increase to its liabilities. Assuming a hypothetical 10% weakening of the U.S. dollar compared with other foreign currencies at December 31, 2019, the fair value of foreign currency-sensitive financial instruments, which primarily represent forward foreign currency exchange contracts, would be decreased by $6.6 million compared with the fair value at December 31, 2019. It is important to note that the change in fair value indicated in this sensitivity analysis would be somewhat offset by changes in the revaluation of the underlying receivables and payables.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this Item 8 is set forth in the Financial Statements and Supplementary Data contained in Part IV of this Annual Report on Form 10-K and is hereby incorporated herein by reference to such information.

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

There were no disagreements with accountants on accounting and financial disclosure for the three-year period ended December 31, 2019.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures: An evaluation was carried out under the supervision and with the participation of the Company's management, including the principal executive officer and the principal financial officer, of the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, these officers have concluded that the Company's disclosure controls and procedures were effective.

Management's report on internal control over financial reporting: Management is responsible for establishing and maintaining adequate internal control over financial reporting. Under the supervision and with the participation of management, including the principal executive officer and principal financial officer, the Company conducted an evaluation of the effectiveness of internal control over financial reporting based on the framework in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework). Based on this evaluation under the framework in Internal Control — Integrated Framework, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2019. The Company's effectiveness of internal control over financial reporting has been audited by Ernst & Young, LLP, an independent registered public accounting firm, as stated in its report, which is included in Item 15 of this Annual Report on Form 10-K and is incorporated herein by reference.

Changes in internal control: During the fourth quarter of 2019, there have been no changes in the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. OTHER INFORMATION

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this Item 10 of Part III will be included in the 2020 Proxy Statement, which information is incorporated herein by reference.

Information regarding the executive officers of the Company is included in this Annual Report on Form 10-K as Item 4A of Part I as permitted by the Instruction to Item 401 of Regulation S-K.

The Company has adopted a code of ethics applicable to all Company personnel, including the principal executive officer, principal financial officer, principal accounting officer and controller, or other persons performing similar functions. The code of ethics, entitled the "Code of Corporate Conduct," is posted on the Company's website at www.hyster-yale.com under "Corporate Governance." Amendments and waivers of the Company's Code of Corporate Conduct for directors or executive officers of the Company, if any, will be disclosed on the Company's website or on a current report on Form 8-K.

Item 11. EXECUTIVE COMPENSATION

Information required by this Item 11 of Part III will be included in the 2020 Proxy Statement, which information is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this Item 12 of Part III will be included in the 2020 Proxy Statement, which information is incorporated herein by reference.

Equity Compensation Plan Information

The following table sets forth information as of December 31, 2019 with respect to our compensation plans (including individual compensation arrangements) under which equity securities are authorized for issuance, aggregated as follows:

Plan Category	Number of Securities to Be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a))
Class A Shares:	(a)	(b)	(c)
Equity compensation plans approved by security holders	—	N/A	409,063
Equity compensation plans not approved by security holders	—	N/A	—
Total	—	N/A	409,063
Class B Shares:			
Equity compensation plans approved by security holders	—	N/A	—
Equity compensation plans not approved by security holders	—	N/A	—
Total	—	N/A	—

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

Information required by this Item 13 of Part III will be included in the 2020 Proxy Statement, which information is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required by this Item 14 of Part III will be included in the 2020 Proxy Statement, which information is incorporated herein by reference.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) (1) The response to Item 15(a)(1) is set forth beginning at page F-1 of this Annual Report on Form 10-K.

(a) (2) The response to Item 15(a)(2) is set forth beginning at page F-47 of this Annual Report on Form 10-K.

(a) (3) Listing of Exhibits — See the exhibit index beginning at page 35 of this Annual Report on Form 10-K.

(b) The response to Item 15(b) is set forth beginning at page 35 of this Annual Report on Form 10-K.

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EXHIBIT INDEX

(3) Articles of Incorporation and By-laws.

3.1(i)	Second Amended and Restated Certificate of Incorporation of Hyster-Yale Materials Handling, Inc. is incorporated by reference to Exhibit 3.1 to Hyster-Yale Materials Handling, Inc.'s Amendment No. 5 to the Registration Statement on Form S-1, dated September 26, 2012, Commission File No. 333-182388.
3.1(ii)	Amended and Restated By-laws of Hyster-Yale Materials Handling, Inc. are incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, dated February 17, 2015, Commission File No. 000-54799.

(4) Instruments defining the rights of security holders, including indentures.

4.1	Specimen of Hyster-Yale Materials Handling, Inc. Class A Common Stock certificate is incorporated by reference to Exhibit 4.1 to Hyster-Yale Materials Handling, Inc.'s Registration Statement on Form S-1, dated June 28, 2012, Commission File No. 333-182388.
4.2	Specimen of Hyster-Yale Materials Handling, Inc. Class B Common Stock certificate is incorporated by reference to Exhibit 4.2 to Hyster-Yale Materials Handling, Inc.'s Registration Statement on Form S-1, dated June 28, 2012, Commission File No. 333-182388.
4.3	Description of Securities is attached hereto.

(10) Material Contracts.

10.1	Tax Allocation Agreement, dated September 28, 2012, by and between NACCO Industries, Inc. and Hyster-Yale Materials Handling, Inc. is incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K, dated October 4, 2012, Commission File Number 1-35646.
10.2	Stockholders' Agreement, dated as of September 28, 2012, by and among the Participating Stockholders (as defined therein), Hyster-Yale Materials Handling, Inc. and the Depository (as defined therein) is incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K, dated October 4, 2012, Commission File No. 1-35646.
10.3	First Amendment to Stockholders' Agreement, dated as of December 31, 2012, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholder identified on the signature pages thereto and the Participating Stockholders under the Stockholders' Agreement, dated as of September 28, 2012, as amended, by and among the Depository, Hyster-Yale Materials Handling, Inc. and the Participating Stockholders is incorporated by reference to Exhibit 10.5 to the Company's Annual Report on Form 10-K, filed by the Company on February 19, 2013, Commission File Number 000-54799.
10.4	Second Amendment to Stockholders' Agreement, dated as of January 18, 2013, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholder identified on the signature pages thereto and the Participating Stockholders under the Stockholders' Agreement, dated as of September 28, 2012, as amended, by and among the Depository, Hyster-Yale Materials Handling, Inc. and the Participating Stockholders is incorporated by reference to Exhibit 10.6 to the Company's Annual Report on Form 10-K, filed by the Company on February 19, 2013, Commission File Number 000-54799.
10.5	Third Amendment to Stockholders' Agreement, dated as of March 27, 2015, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholder identified on the signature pages thereto and the Participating Stockholders under the Stockholders' Agreement, dated as of September 28, 2012, as amended, by and among the Depository, Hyster-Yale Materials Handling, Inc. and the Participating Stockholders is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed by the Company on April 29, 2015, Commission File Number 000-54799.
10.6	Fourth Amendment to Stockholders' Agreement, dated as of December 29, 2015, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholder identified on the signature pages thereto and the Participating Stockholders under the Stockholders' Agreement, dated as of September 28, 2012, as amended, by and among the Depository, Hyster-Yale Materials Handling, Inc. and the Participating Stockholders is incorporated by reference to Exhibit 10 filed with Amendment No. 4 to the Statement on Schedule 13D, filed by the Reporting Persons named therein on February 16, 2016, Commission File Number 005-87003.
10.7	Fifth Amendment to Stockholders' Agreement, dated as of December 2, 2016, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholder identified on the signature pages thereto and the Participating Stockholders under the Stockholders' Agreement, dated as of September 28, 2012, as amended, by and among the Depository, Hyster-Yale Materials Handling, Inc. and the Participating Stockholders is incorporated by reference to Exhibit No. 11 filed with Amendment No. 5 to the Statement on Schedule 13D, filed by the reporting persons named therein on February 14, 2017, Commission File Number 005-38001.
10.8	Sixth Amendment to Stockholders' Agreement, dated as of December 22, 2016, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholder identified on the signature pages thereto and the Participating Stockholders under the Stockholders' Agreement, dated as of September 28, 2012, as amended, by and among the Depository, Hyster-Yale Materials Handling, Inc. and the Participating Stockholders is incorporated by reference to Exhibit No. 12 filed with Amendment No. 5 to the Statement on Schedule 13D, filed by the reporting persons named therein on February 14, 2017, Commission File Number 005-38001.

10.9	Seventh Amendment to Stockholders' Agreement, dated as of February 6, 2017, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholder identified on the signature pages thereto and the Participating Stockholders under the Stockholders' Agreement, dated as of September 28, 2012, as amended, by and among the Depository, Hyster-Yale Materials Handling, Inc. and the Participating Stockholders is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed by the Company on May 2, 2017, Commission File Number 000-54799.
10.10	Eighth Amendment to Stockholders' Agreement, dated as of October 30, 2018, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholder identified on the signature pages thereto and the Participating Stockholders under the Stockholders' Agreement, dated as of September 28, 2012, as amended, by and among the Depository, Hyster-Yale Materials Handling, Inc. and the Participating Stockholders is incorporated by reference to Exhibit 10.10 to the Company's Annual Report on Form 10-K, filed by the Company on February 26, 2019, Commission File Number 000-54799.
10.11	Ninth Amendment to Stockholders' Agreement, dated as of December 5, 2019, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholder identified on the signature pages thereto and the Participating Stockholders under the Stockholders' Agreement, dated as of September 28, 2012, as amended, by and among the Depository, Hyster-Yale Materials Handling, Inc. and the Participating Stockholders is incorporated by reference to Exhibit 28 filed with Amendment No. 8 to the Statement on Schedule 13D, filed by the reporting persons named therein on February 13, 2020, Commission File Number 005-38001.
10.12*	The Hyster-Yale Group, Inc. Executive Excess Retirement Plan (Effective as of January 1, 2016) is incorporated by reference to Exhibit 10.13 to the Company's Annual Report on Form 10-K, filed by the Company on February 28, 2017, Commission File Number 000-54799.
10.13*	Hyster-Yale Materials Handling, Inc. Long-Term Equity Incentive Plan (Effective September 28, 2012), is incorporated by reference to Exhibit 10.15 to the Company's Annual Report on Form 10-K, filed by the Company on February 27, 2018, Commission File Number 000-54799.
10.14*	Form Award Agreement for the Hyster-Yale Materials Handling, Inc. Long-Term Equity Incentive Plan (Effective as of the Spin-Off Date) is incorporated by reference to Exhibit 10.12 to the Company's Annual Report on Form 10-K, filed by the Company on February 19, 2015, Commission File Number 000-54799.
10.15*	Hyster-Yale Materials Handling, Inc. Supplemental Long-Term Equity Incentive Plan (Effective as of the Spin-Off Date) is incorporated by reference to Exhibit 10.67 to Hyster-Yale Materials Handling, Inc.'s Amendment No. 3 to the Registration Statement on Form S-1, dated September 13, 2012, Commission File Number 333-182388.
10.16*	Form Award Agreement for the Hyster-Yale Materials Handling, Inc. Supplemental Long-Term Equity Incentive Plan (Effective as of the Spin-Off Date) is incorporated by reference to Exhibit 10.68 to Hyster-Yale Materials Handling, Inc.'s Amendment No. 3 to the Registration Statement on Form S-1, dated September 13, 2012, Commission File Number 333-182388.
10.17*	Hyster-Yale Materials Handling, Inc. Non-Employee Directors' Equity Compensation Plan (Amended and Restated Effective May 17, 2019) is attached hereto.
10.18*	Hyster-Yale Materials Handling, Inc. and Subsidiaries Director Fee Policy (Amended Effective as of January 1, 2020) is attached hereto.
10.19*	The Hyster-Yale Group, Inc. Unfunded Benefit Plan (As Amended and Restated as of January 1, 2016) is incorporated by reference to Exhibit 10.23 to the Company's Annual Report on Form 10-K, filed by the Company on February 28, 2017, Commission File Number 000-54799.
10.20*	Amendment No. 1 to the Hyster-Yale Group, Inc. Unfunded Benefit Plan (As Amended and Restated as of January 1, 2016) is incorporated by reference to Exhibit 10.20 to the Company's Annual Report on Form 10-K, filed by the Company on February 26, 2019, Commission File Number 000-54799.
10.21*	The Hyster-Yale Group, Inc. Long-Term Incentive Compensation Plan (Amended and Restated Effective as of January 1, 2016) is incorporated by reference to Exhibit 10.24 to the Company's Annual Report on Form 10-K, filed by the Company on February 28, 2017, Commission File Number 000-54799.
10.22*	The Hyster-Yale Group Inc. Annual Incentive Compensation Plan (Amended and Restated Effective as of January 1, 2016) is incorporated by reference to Exhibit 10.25 to the Company's Annual Report on Form 10-K, filed by the Company on February 28, 2017, Commission File Number 000-54799.
10.23*	Hyster-Yale Group, Inc. Excess Retirement Plan (Amended and Restated Effective January 1, 2016) is incorporated by reference to Exhibit 10.35 to the Company's Annual Report on Form 10-K, filed by the Company on February 17, 2016, Commission File Number 000-54799.
10.24*	Amendment No. 1 to the Hyster-Yale Group, Inc. Excess Retirement Plan (As Amended and Restated as of January 1, 2016) is incorporated by reference to Exhibit 10.24 to the Company's Annual Report on Form 10-K, filed by the Company on February 26, 2019, Commission File Number 000-54799.
10.25*	Consulting Agreement, dated November 24, 2019, by and between Hyster-Yale Group, Inc. and Colin Wilson is incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, dated November 26, 2019, Commission File Number 000-54799.

10.26	Equity joint venture contract, dated November 27, 1997, between Shanghai Perfect Jinqiao United Development Company Ltd., People's Republic of China, NACCO Materials Handling Group, Inc., USA, and Sumitomo-Yale Company Ltd., Japan is incorporated by reference to Exhibit 10.3 to NMHG Holding Co.'s Registration Statement on Form S-4, dated May 28, 2002, Commission File Number 333-89248.
10.27	Third Amended and Restated Joint Venture and Shareholders Agreement between Wells Fargo Financial Leasing, Inc. and Hyster-Yale Group, Inc., dated September 17, 2018 is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, Commission File Number 000-54799.
10.28	A$ Facility Agreement, dated November 22, 2000, between GE Capital Australia and National Fleet Network Pty Limited is incorporated by reference to Exhibit 10.12 to NMHG Holding Co.'s Registration Statement on Form S-4, dated May 28, 2002, Commission File Number 333-89248.
10.29	Second Amended and Restated Recourse and Indemnity Agreement, dated September 17, 2018, by and between Wells Fargo Financial Leasing, Inc., HYG Financial Services, Inc. and Hyster-Yale Group, Inc. is incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, Commission File Number 000-54799.
10.30	First Amended and Restated Guarantee Agreement, dated September 17, 2018, by Hyster-Yale Materials Handling, Inc. in favor of Wells Fargo Financial Leasing, Inc. is incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, Commission File Number 000-54799.
10.31	First Amended and Restated Guarantee Agreement, dated September 17, 2018, by Hyster-Yale Group, Inc. in favor of Wells Fargo Financial Leasing, Inc. is incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, Commission File Number 000-54799.
10.32	Loan, Security and Guaranty Agreement dated as of April 28, 2016 among Hyster-Yale Materials Handling, Inc. and Hyster-Yale Group, Inc., as U.S. Borrowers, Hyster-Yale Nederland B.V., Hyster-Yale International B.V., Hyster-Yale Holding B.V. and Hyster-Yale Capital Holding B.V., as Dutch Borrowers, Hyster-Yale UK Limited and Hyster-Yale Capital UK Limited, as UK Borrowers, any other Borrowers party thereto from time to time and certain Persons party thereto from time to time as Guarantors, certain financial institutions, as Lenders, Bank of America, N.A., as Administrative Agent and Security Trustee, Merrill Lynch, Pierce, Fenner & Smith Incorporated and CitiGroup Global Markets Inc., as Joint Lead Arrangers and Joint Book Managers, and CitiBank, N.A., as Syndication Agent is incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, dated April 28, 2016, Commission File Number 000-54799.
10.33	First Amendment to Amended and Restated Loan, Security and Guaranty Agreement dated as of May 30, 2017 among Hyster-Yale Materials Handling, Inc. and Hyster-Yale Group, Inc., as U.S. Borrowers, Hyster-Yale Nederland B.V., Hyster-Yale International B.V., Hyster-Yale Holding B.V. and Bolzoni Capital Holding B.V., as Dutch Borrowers, Hyster-Yale UK Limited and Bolzoni Capital UK Limited, as UK Borrowers, any other Borrowers party thereto from time to time and certain Persons party thereto from time to time as Guarantors, certain financial institutions, as Lenders, Bank of America, N.A., as Administrative Agent and Security Trustee is incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, Commission File Number 000-54799.
10.34	Second Amendment to Amended and Restated Loan, Security and Guaranty Agreement, dated as of March 14, 2018, among Hyster-Yale Materials Handling, Inc. and Hyster-Yale Group, Inc., as U.S. Borrowers, Hyster-Yale Nederland B.V., Hyster-Yale International B.V., Hyster-Yale Holding B.V. and Bolzoni Capital Holding B.V., as Dutch Borrowers, Hyster-Yale UK Limited and Bolzoni Capital UK Limited, as UK Borrowers, any other Borrowers party thereto from time to time and certain Persons party thereto from time to time as Guarantors, certain financial institutions, as Lenders, Bank of America, N.A., as Administrative Agent and Security Trustee is incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, Commission File Number 000-54799.
10.35	Third Amendment to Amended and Restated Loan, Security and Guaranty Agreement, dated as of April 3, 2019, among Hyster-Yale Materials Handling, Inc., Hyster-Yale Group, Inc., and Bolzoni Auramo, Inc. as U.S. Borrowers, Hyster-Yale Nederland B.V., Hyster-Yale International B.V., Hyster-Yale Holding B.V. and Bolzoni Capital Holding B.V., as Dutch Borrowers, Hyster-Yale UK Limited and Bolzoni Capital UK Limited, as UK Borrowers, any other Borrowers party thereto from time to time and certain Persons party thereto from time to time as Guarantors, certain financial institutions, as Lenders, Bank of America, N.A., as Administrative Agent and Security Trustee is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, Commission File Number 000-54799.
10.36	Term Loan Credit Agreement dated as of May 30, 2017 among Hyster-Yale Group, Inc. as the Borrower, Hyster-Yale Materials Handling, Inc., Bank of America, N.A., as Administrative Agent is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, Commission File Number 000-54799.
10.37	First Amendment to Term Loan Credit Agreement, dated as of March 14, 2018, by and among Hyster-Yale Group, Inc., as the Borrower, Hyster-Yale Materials Handling, Inc. and Bank of America, N.A., as Administrative Agent is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, Commission File Number 000-54799.

10.38	Commitment Agreement for the Purchase and Sale of Real Estate and Other Covenants, dated May 23, 2013, by and between NACCO Materials Handling Group Brasil Ltda. and Synergy Empreendimentos E Participacoes Ltda. is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, Commission File Number 000-54799.
10.39	Amendment to the Commitment Agreement for the Purchase and Sale of Real Estate and Other Covenants, dated May 23, 2013, by and between NACCO Materials Handling Group Brasil Ltda. and Synergy Empreendimentos E Participacoes Ltda. is incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, Commission File Number 000-54799.
10.40	Letter Agreement, dated August 1, 2013, between Synergy Empreendimentos E Participacoes Ltda. and NACCO Materials Handling Group Brasil Ltda. Amending the Commitment Agreement for the Purchase and Sale of Real Estate and Other Covenants is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013, Commission File Number 000-54799.
10.41	Equity Transfer Agreement, dated December 6, 2017, by and between KNSN Pipe & Pile Company Limited and Hyster-Yale Acquisition Holding LTD Regarding Zhejiang Maximal Forklift Co., LTD. is incorporated by reference to Exhibit 10.57 to the Company's Annual Report on Form 10-K, filed by the Company on February 27, 2018, Commission File Number 000-54799.

(21) Subsidiaries.

21.1	A list of the subsidiaries of the Company is attached hereto.

(23) Consents of experts and counsel.

23.1	Consent of Ernst & Young LLP.

(24) Powers of Attorney.

24.1	A copy of a power of attorney for James B. Bemowski is attached hereto.
24.2	A copy of a power of attorney for John C. Butler Jr. is attached hereto.
24.3	A copy of a power of attorney for Carolyn Corvi is attached hereto.
24.4	A copy of a power of attorney for John P. Jumper is attached hereto.
24.5	A copy of a power of attorney for Dennis W. LaBarre is attached hereto.
24.6	A copy of a power of attorney for H. Vincent Poor is attached hereto.
24.7	A copy of a power of attorney for Claiborne R. Rankin is attached hereto.
24.8	A copy of a power of attorney for Britton T. Taplin is attached hereto.
24.9	A copy of a power of attorney for David B. H. Williams is attached hereto.
24.10	A copy of a power of attorney for Eugene Wong is attached hereto.

(31) Rule 13a-14(a)/15d-14(a) Certifications.

31(i)(1)	Certification of Alfred M. Rankin, Jr. pursuant to Rule 13a-14(a)/15d-14(a) of the Exchange Act is attached hereto.
31(i)(2)	Certification of Kenneth C. Schilling pursuant to Rule 13a-14(a)/15d-14(a) of the Exchange Act is attached hereto.
(32)	Certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, signed and dated by Alfred M. Rankin, Jr. and Kenneth C. Schilling
101.INS	Inline XBRL Instance Document - The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)
*	Management contract or compensation plan or arrangement required to be filed as an exhibit pursuant to Item15(b) of this Annual Report on Form 10-K.

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.

Hyster-Yale Materials Handling, Inc.

By: /s/ Kenneth C. Schilling

Kenneth C. Schilling

Senior Vice President and Chief Financial Officer (principal financial and accounting officer)

February 25, 2020

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/ Alfred M. Rankin, Jr. Alfred M. Rankin, Jr.	Chairman, President and Chief Executive Officer (principal executive officer), Director	February 25, 2020
/s/ Kenneth C. Schilling Kenneth C. Schilling	Senior Vice President and Chief Financial Officer (principal financial and accounting officer)	February 25, 2020
* James B. Bemowski James B. Bemowski	Director	February 25, 2020
* J.C. Butler, Jr. J.C. Butler, Jr.	Director	February 25, 2020
* Carolyn Corvi Carolyn Corvi	Director	February 25, 2020
* John P. Jumper John P. Jumper	Director	February 25, 2020
* Dennis W. LaBarre Dennis W. LaBarre	Director	February 25, 2020
* H. Vincent Poor H. Vincent Poor	Director	February 25, 2020
* Claiborne R. Rankin Claiborne R. Rankin	Director	February 25, 2020
* Britton T. Taplin Britton T. Taplin	Director	February 25, 2020
* David B. H. Williams David B. H. Williams	Director	February 25, 2020
* Eugene Wong Eugene Wong	Director	February 25, 2020

* Kenneth C. Schilling, by signing his name hereto, does hereby sign this Annual Report on Form 10-K on behalf of each of the above named and designated directors of the Company pursuant to a Power of Attorney executed by such persons and filed with the Securities and Exchange Commission.

/s/ Kenneth C. Schilling Kenneth C. Schilling, Attorney-in-Fact	February 25, 2020

ANNUAL REPORT ON FORM 10-K

ITEM 8, ITEM 15(a)(1) AND (2)

FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

LIST OF FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULE

FINANCIAL STATEMENTS

FINANCIAL STATEMENT SCHEDULE

YEAR ENDED DECEMBER 31, 2019

HYSTER-YALE MATERIALS HANDLING, INC.

CLEVELAND, OHIO

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FORM 10-K

ITEM 15(a)(1) AND (2)

HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES

LIST OF FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULE

The following consolidated financial statements of Hyster-Yale Materials Handling, Inc. and Subsidiaries are incorporated by reference in Item 8:

The following consolidated financial statement schedule of Hyster-Yale Materials Handling, Inc. and Subsidiaries are included in Item 15(a):

All other schedules for which provision is made in the applicable accounting regulation of the SEC are not required under the related instructions or are inapplicable, and therefore have been omitted.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Hyster-Yale Materials Handling, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Hyster-Yale Materials Handling, Inc. and Subsidiaries ("the Company") as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), cash flows and equity for each of the three years in the period ended December 31, 2019, and the related notes and financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 25, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the account or disclosure to which it relates.

Valuation of Goodwill

Description of the Matter	At December 31, 2019, the Company's goodwill balance was $106.7 million. As discussed in Note 13, Goodwill and Intangible Assets, to the consolidated financial statements, the Company evaluates the carrying amount of goodwill for impairment annually as of May 1st and between annual evaluations if changes in circumstances or the occurrence of certain events indicate potential impairment. The Company applied a quantitative assessment for all material reporting units in fiscal 2019. As part of the quantitative approach, the Company estimates the fair value of the reporting unit using a discounted cash flow approach from the perspective of a market participant. Significant estimates within the discounted cash flow analysis include cash flow forecasts, the discount rate and the terminal business value. Auditing management's annual goodwill impairment assessment relating to goodwill amounts was complex and highly judgmental due to the significant estimation required to determine the fair value of the reporting units. In particular, the fair value estimate was sensitive to significant assumptions, such as changes in the discount rate applied, revenue growth rates, including the terminal growth rate, and operating margins, which are affected by expectations about future market or economic conditions.

How We Addressed the Matter in Our Audit	We obtained an understanding and evaluated the design and tested the operating effectiveness of controls over the Company's goodwill impairment and annual forecasting process whereby the Company develops significant assumptions that are used as inputs to the annual goodwill impairment test. This included controls over management's review of the valuation model and the significant assumptions (e.g., revenue, operating margin and terminal growth rate) used to develop the prospective financial information (PFI). To test the implied fair value of the Company's reporting units, we performed audit procedures that included, among others, assessing use of the discounted cash flow methodology and directly testing the significant assumptions and the underlying data used by the Company in its analysis, including assessing the completeness and accuracy of such underlying data. We utilized internal valuation specialists in assessing the fair value methodologies applied and evaluating the reasonableness of the discount rate selected by management. We compared the significant assumptions used by management to current industry and economic trends, historical performance, and strategic plans. We considered whether the assumptions were consistent with evidence obtained in other areas of the audit. We assessed the historical accuracy of management's estimates, and we performed sensitivity analyses of significant assumptions to evaluate the changes in the fair value of the reporting units that would result from changes in the assumptions. Furthermore, we assessed the appropriateness of the disclosures in the consolidated financial statements.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2002.

Cleveland, Ohio

February 25, 2020

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Hyster-Yale Materials Handling, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Hyster-Yale Materials Handling, Inc. and Subsidiaries' ("the Company") internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control- Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), cash flows and equity for each of the three years in the period ended December 31, 2019 and the related notes and financial statement schedule listed in the Index at Item 15(a) and our report dated February 25, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying management's report on internal control over financial reporting in Item 9A. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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/ Ernst & Young LLP

Cleveland, Ohio
February 25, 2020

HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31		
	2019	2018	2017
	(In millions, except per share data)		
Revenues	**$ 3,291.8**	$ 3,179.1	$ 2,885.2
Cost of sales	**2,750.0**	2,682.1	2,382.6
Gross Profit	**541.8**	497.0	502.6
Operating Expenses			
Selling, general and administrative expenses	**487.9**	458.2	428.5
Operating Profit	**53.9**	38.8	74.1
Other (income) expense			
Interest expense	**19.8**	16.0	14.6
Income from unconsolidated affiliates	**(9.3)**	(10.0)	(28.0)
Other, net	**(4.5)**	(3.8)	(6.3)
	6.0	2.2	(19.7)
Income Before Income Taxes	**47.9**	36.6	93.8
Income tax provision	**11.3**	2.3	44.9
Net Income	**36.6**	34.3	48.9
Net (income) loss attributable to noncontrolling interest	**(0.8)**	0.4	(0.3)
Net Income Attributable to Stockholders	**$ 35.8**	$ 34.7	$ 48.6
Basic Earnings per Share Attributable to Stockholders	**$ 2.15**	$ 2.10	$ 2.95
Diluted Earnings per Share Attributable to Stockholders	**$ 2.14**	$ 2.09	$ 2.94

See Notes to Consolidated Financial Statements.

HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Year Ended December 31		
	2019	2018	2017
	(In millions)		
Net Income	**$ 36.6**	$ 34.3	$ 48.9
Other comprehensive income (loss)			
Foreign currency translation adjustment	**(7.0)**	(27.4)	33.5
Unrealized gain on available-for-sale securities, net of $0.5 tax expense in 2017	**—**	—	2.8
Current period cash flow hedging activity, net of $5.9 tax benefit in 2019, net of $4.6 tax benefit in 2018 and net of $8.0 tax expense in 2017	**(15.9)**	(12.2)	6.6
Reclassification of hedging activities into earnings, net of $4.5 tax expense in 2019, net of $0.8 tax benefit in 2018 and net of $1.6 tax expense in 2017	**12.0**	(1.8)	4.1
Current period pension adjustment, net of $0.1 tax expense in 2019, net of $4.3 tax benefit in 2018 and net of $3.7 tax expense in 2017	**0.4**	(20.1)	13.1
Reclassification of pension into earnings, net of $0.8 tax expense in 2019, net of $0.7 tax expense in 2018 and net of $1.0 tax expense in 2017	**3.2**	2.9	3.2
Comprehensive Income (Loss)	**$ 29.3**	$ (24.3)	$ 112.2
Other comprehensive income (loss) attributable to noncontrolling interests			
Net (income) loss attributable to noncontrolling interests	**(0.8)**	0.4	(0.3)
Foreign currency translation adjustment attributable to noncontrolling interests	**—**	2.3	(0.9)
Comprehensive Income (Loss) Attributable to Stockholders	**$ 28.5**	$ (21.6)	$ 111.0

See Notes to Consolidated Financial Statements.

HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31	
	2019	2018
	(In millions, except share data)	
ASSETS		
Current Assets		
Cash and cash equivalents	**$ 64.6**	$ 83.7
Accounts receivable, net of allowances of $5.6 in 2019 and $5.4 in 2018	**468.3**	465.5
Inventories, net	**559.9**	533.6
Prepaid expenses and other	**63.0**	48.8
Total Current Assets	**1,155.8**	1,131.6
Property, Plant and Equipment, Net	**308.5**	296.2
Intangible Assets	**60.1**	67.7
Goodwill	**106.7**	108.3
Deferred Income Taxes	**30.8**	26.3
Investment in Unconsolidated Affiliates	**80.0**	75.6
Other Non-current Assets	**105.3**	36.4
Total Assets	**$ 1,847.2**	$ 1,742.1
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	**$ 401.5**	$ 415.5
Accounts payable, affiliates	**15.6**	21.3
Revolving credit facilities	**7.7**	13.3
Current maturities of long-term debt	**74.6**	78.1
Accrued payroll	**66.1**	56.3
Deferred revenue	**49.1**	37.6
Other current liabilities	**202.4**	154.1
Total Current Liabilities	**817.0**	776.2
Long-term Debt	**204.7**	210.1
Self-insurance Liabilities	**31.4**	25.2
Pension Obligations	**13.5**	23.1
Deferred Income Taxes	**15.4**	17.8
Other Long-term Liabilities	**188.2**	130.2
Total Liabilities	**1,270.2**	1,182.6
Stockholders' Equity		
Common stock:		
Class A, par value $0.01 per share, 12,802,455 shares outstanding (2018 - 12,682,755 shares outstanding)	**0.1**	0.1
Class B, par value $0.01 per share, convertible into Class A on a one-for-one basis, 3,864,462 shares outstanding (2018 - 3,877,967 shares outstanding)	**0.1**	0.1
Capital in excess of par value	**321.3**	321.5
Treasury stock	**(15.9)**	(24.1)
Retained earnings	**427.4**	407.3
Accumulated other comprehensive loss	**(188.7)**	(177.5)
Total Stockholders' Equity	**544.3**	527.4
Noncontrolling Interest	**32.7**	32.1
Total Equity	**577.0**	559.5
Total Liabilities and Equity	**$ 1,847.2**	$ 1,742.1

See Notes to Consolidated Financial Statements.

HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31		
	2019	2018	2017
	(In millions)		
Operating Activities			
Net income	**$ 36.6**	$ 34.3	$ 48.9
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	**43.3**	44.0	42.8
Amortization of deferred financing fees	**1.9**	1.7	1.4
Deferred income taxes	**(6.8)**	(3.2)	8.1
Gain on sale of assets	**0.1**	(0.3)	(0.3)
Stock-based compensation	**8.2**	5.7	8.8
Long-lived and intangible assets impairment charge	**—**	—	4.9
Dividends from unconsolidated affiliates	**5.1**	22.2	2.8
Other non-current liabilities	**(5.5)**	(9.4)	4.8
Other	**20.4**	8.8	(13.3)
Working capital changes, excluding the effect of business acquisitions:			
Accounts receivable	**(9.6)**	58.0	(44.0)
Inventories	**(37.9)**	(125.4)	(43.6)
Other current assets	**(1.2)**	1.3	(1.0)
Accounts payable	**1.9**	23.3	125.1
Other liabilities	**20.2**	6.6	19.3
Net cash provided by operating activities	**76.7**	67.6	164.7
Investing Activities			
Expenditures for property, plant and equipment	**(49.7)**	(38.8)	(41.0)
Proceeds from the sale of assets	**7.7**	5.9	1.3
Business acquisitions, net of cash acquired	**—**	(78.0)	(1.0)
Investments in equity securities	**—**	—	(5.6)
Purchase of noncontrolling interest	**—**	—	(1.0)
Net cash used for investing activities	**(42.0)**	(110.9)	(47.3)
Financing Activities			
Additions to long-term debt	**67.6**	71.5	265.6
Reductions of long-term debt	**(92.1)**	(143.7)	(75.9)
Net additions (reductions) to revolving credit agreements	**(5.3)**	6.5	(111.7)
Cash dividends paid	**(21.0)**	(20.4)	(19.8)
Cash dividends paid to noncontrolling interest	**(0.2)**	(0.3)	(0.3)
Financing fees paid	**(0.4)**	(0.6)	(4.7)
Other	**(0.2)**	(0.6)	(0.1)
Net cash provided by (used for) financing activities	**(51.6)**	(87.6)	53.1
Effect of exchange rate changes on cash	**(2.2)**	(5.5)	6.4
Cash and Cash Equivalents			
Increase (decrease) for the year	**(19.1)**	(136.4)	176.9
Balance at the beginning of the year	**83.7**	220.1	43.2
Balance at the end of the year	**$ 64.6**	$ 83.7	$ 220.1

See Notes to Consolidated Financial Statements.

HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY

	Class A Common Stock	Class B Common Stock	Treasury Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Income (Loss): Foreign Currency Translation Adjustment	Deferred Gain on AFS Securities	Deferred Gain (Loss) on Cash Flow Hedging	Pension Adjustment	Total Stockholders' Equity	Noncontrolling Interest	Total Equity
						(In millions)						
Balance, January 1, 2017	$ 0.1	$ 0.1	$ (36.9)	$ 319.6	$ 360.3	$ (92.0)	$ —	$ (12.2)	$ (75.2)	$ 463.8	$ 6.6	$ 470.4
Stock-based compensation	—	—	—	8.8	—	—	—	—	—	8.8	—	8.8
Stock issued under stock compensation plans	—	—	5.4	(5.4)	—	—	—	—	—	—	—	—
Net income (loss)	—	—	—	—	48.6	—	—	—	—	48.6	0.3	48.9
Cash dividends	—	—	—	—	(19.8)	—	—	—	—	(19.8)	(0.3)	(20.1)
Current period other comprehensive income (loss)	—	—	—	—	—	33.5	2.8	6.6	13.1	56.0	—	56.0
Reclassification adjustment to net income	—	—	—	—	—	—	—	4.1	3.2	7.3	—	7.3
Acquisition of business	—	—	—	—	—	—	—	—	—	—	0.3	0.3
Purchase of noncontrolling interest	—	—	—	0.8	—	—	—	—	—	0.8	(0.9)	(0.1)
Foreign currency translation on noncontrolling interest	—	—	—	—	—	—	—	—	—	—	0.9	0.9
Balance, December 31, 2017	$ 0.1	$ 0.1	$ (31.5)	$ 323.8	$ 389.1	$ (58.5)	$ 2.8	$ (1.5)	$ (58.9)	$ 565.5	$ 6.9	$ 572.4
Cumulative effect of change in accounting	—	—	—	—	3.9	—	(2.8)	—	—	1.1	—	1.1
Stock-based compensation	—	—	—	5.7	—	—	—	—	—	5.7	—	5.7
Stock issued under stock compensation plans	—	—	8.0	(8.0)	—	—	—	—	—	—	—	—
Purchase of treasury stock	—	—	(0.6)	—	—	—	—	—	—	(0.6)	—	(0.6)
Net income (loss)	—	—	—	—	34.7	—	—	—	—	34.7	(0.4)	34.3
Cash dividends	—	—	—	—	(20.4)	—	—	—	—	(20.4)	(0.3)	(20.7)
Current period other comprehensive income (loss)	—	—	—	—	—	(27.4)	—	(12.2)	(20.1)	(59.7)	—	(59.7)
Reclassification adjustment to net income	—	—	—	—	—	—	—	(1.8)	2.9	1.1	—	1.1
Acquisition of business	—	—	—	—	—	—	—	—	—	—	28.2	28.2
Foreign currency translation on noncontrolling interest	—	—	—	—	—	—	—	—	—	—	(2.3)	(2.3)
Balance, December 31, 2018	$ 0.1	$ 0.1	$ (24.1)	$ 321.5	$ 407.3	$ (85.9)	$ —	$ (15.5)	$ (76.1)	$ 527.4	$ 32.1	$ 559.5

HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY

						Accumulated Other Comprehensive Income (Loss)						
	Class A Common Stock	**Class B Common Stock**	**Treasury Stock**	**Capital in Excess of Par Value**	**Retained Earnings**	**Foreign Currency Translation Adjustment**	**Deferred Gain on AFS Securities**	**Deferred Gain (Loss) on Cash Flow Hedging**	**Pension Adjustment**	**Total Stockholders' Equity**	**Noncontrolling Interest**	**Total Equity**
						(In millions)						
Balance, December 31, 2018	$ 0.1	$ 0.1	$ (24.1)	$ 321.5	$ 407.3	$ (85.9)	$ —	$ (15.5)	$ (76.1)	$ 527.4	$ 32.1	$ 559.5
Cumulative effect of change in accounting	—	—	—	—	**5.3**	—	—	**0.9**	**(4.8)**	**1.4**	—	**1.4**
Stock-based compensation	—	—	—	**8.2**	—	—	—	—	—	**8.2**	—	**8.2**
Stock issued under stock compensation plans	—	—	**8.4**	**(8.4)**	—	—	—	—	—	—	—	—
Purchase of treasury stock	—	—	**(0.2)**	—	—	—		—	—	**(0.2)**	—	**(0.2)**
Net income (loss)	—	—	—	—	**35.8**	—	—	—	—	**35.8**	**0.8**	**36.6**
Cash dividends	—	—	—	—	**(21.0)**	—	—	—	—	**(21.0)**	**(0.2)**	**(21.2)**
Current period other comprehensive income (loss)	—	—	—	—	—	**(7.0)**	—	**(15.9)**	**0.4**	**(22.5)**	—	**(22.5)**
Reclassification adjustment to net income	—	—	—	—	—	—	—	**12.0**	**3.2**	**15.2**	—	**15.2**
Balance, December 31, 2019	**$ 0.1**	**$ 0.1**	**$ (15.9)**	**$ 321.3**	**$ 427.4**	**$ (92.9)**	**$ —**	**$ (18.5)**	**$ (77.3)**	**$ 544.3**	**$ 32.7**	**$ 577.0**

See Notes to Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
(Tabular Amounts in Millions, Except Per Share and Percentage Data)

NOTE 1—Principles of Consolidation and Nature of Operations

The consolidated financial statements include the accounts of Hyster-Yale Materials Handling, Inc., a Delaware corporation, and the accounts of Hyster-Yale's wholly owned domestic and international subsidiaries and majority-owned joint ventures (collectively, "Hyster-Yale" or the "Company"). All intercompany accounts and transactions among the consolidated companies are eliminated in consolidation.

The Company, through its wholly owned operating subsidiary, Hyster-Yale Group, Inc. ("HYG"), designs, engineers, manufactures, sells and services a comprehensive line of lift trucks and aftermarket parts marketed globally primarily under the Hyster® and Yale® brand names, mainly to independent Hyster® and Yale® retail dealerships. Lift trucks and component parts are manufactured in the United States, China, Northern Ireland, Mexico, the Netherlands, the Philippines, Italy, Japan, Vietnam and Brazil. The sale of service parts represents approximately 12% of total revenues as reported for 2019 and 13% for 2018 and 2017, respectively.

On June 1, 2018, the Company completed the acquisition of a 75% majority interest in Hyster-Yale Maximal Forklift (Zhejiang) Co., Ltd. ("Hyster-Yale Maximal"). Hyster-Yale Maximal is a Chinese manufacturer of low-intensity and standard lift trucks and specialized material handling equipment. Hyster-Yale Maximal also designs and produces specialized products in the port equipment and rough terrain forklift markets. The results of Hyster-Yale Maximal are included in the JAPIC segment since the date of acquisition.

The Company operates Bolzoni S.p.A. ("Bolzoni"). Bolzoni is a leading worldwide producer and distributor of attachments, forks and lift tables marketed under the Bolzoni®, Auramo® and Meyer® brand names. Bolzoni products are manufactured in the United States, Italy, China, Germany and Finland. Through the design, production and distribution of a wide range of attachments, Bolzoni has a strong presence in the market niche of lift-truck attachments and industrial material handling.

In 2019, as part of a plan to expand Bolzoni's capabilities in the United States, Bolzoni's North America attachment manufacturing moved into HYG's Sulligent, Alabama manufacturing facility. As a result, effective January 1, 2019, the Sulligent facility became a Bolzoni facility. Accordingly, the results of the Sulligent facility in 2019 have been included in the Bolzoni segment and the historical results of operations of the Sulligent facility for 2018 and 2017 have been included in the Bolzoni segment.

The Company operates Nuvera Fuel Cells, LLC ("Nuvera"). Nuvera is an alternative-power technology company focused on the design, manufacture and sale of hydrogen fuel-cell stacks and engines.

Investments in Sumitomo NACCO Forklift Co., Ltd. ("SN"), a 50% owned joint venture, and HYG Financial Services, Inc. ("HYGFS"), a 20% owned joint venture, are accounted for by the equity method. SN operates manufacturing facilities in Japan, the Philippines and Vietnam from which the Company purchases certain components, service parts and lift trucks. Sumitomo Heavy Industries, Ltd. owns the remaining 50% interest in SN. Each stockholder of SN is entitled to appoint directors representing 50% of the vote of SN’s board of directors. All matters related to policies and programs of operation, manufacturing and sales activities require mutual agreement between the Company and Sumitomo Heavy Industries, Ltd. prior to a vote of SN’s board of directors. HYGFS is a joint venture with Wells Fargo Financial Leasing, Inc. ("WF"), formed primarily for the purpose of providing financial services to independent Hyster® and Yale® lift truck dealers and National Account customers in the United States. National Account customers are large customers with centralized purchasing and geographically dispersed operations in multiple dealer territories. The Company’s percentage share of the net income or loss from these equity investments is reported on the line “Income from unconsolidated affiliates” in the “Other income (expense)” portion of the Consolidated Statements of Operations.

NOTE 2—Significant Accounting Policies

Use of Estimates: The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and judgments. These estimates and judgments affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities (if any) at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents: Cash and cash equivalents include cash in banks and highly liquid investments with original maturities of three months or less.

(Tabular Amounts in Millions, Except Per Share and Percentage Data)

Accounts Receivable, Net of Allowances: Allowances are maintained against accounts receivable for doubtful accounts. Allowances for doubtful accounts are maintained for estimated losses resulting from the inability of customers to make required payments. These allowances are based on both recent trends of certain customers estimated to be a greater credit risk as well as general trends of the entire customer pool. Accounts are written off against the allowance when it becomes evident collection will not occur.

Self-insurance Liabilities: The Company is generally self-insured for product liability, environmental liability and medical and workers' compensation claims. For product liability, catastrophic insurance coverage is retained for potentially significant individual claims. The Company also has insurance for certain historic product liability claims. An estimated provision for claims reported and for claims incurred but not yet reported under the self-insurance programs is recorded and revised periodically based on industry trends, historical experience and management judgment. In addition, industry trends are considered within management judgment for valuing claims. Changes in assumptions for such matters as legal judgments and settlements, legal defense costs, inflation rates, medical costs and actual experience could cause estimates to change in the near term.

Advertising Costs: Advertising costs are expensed as incurred. Total advertising expense was $10.7 million, $14.6 million and $11.2 million in 2019, 2018 and 2017, respectively.

Product Development Costs: Expenses associated with the development of new products and changes to existing products are charged to expense as incurred. These costs amounted to $115.3 million, $110.9 million and $104.5 million in 2019, 2018 and 2017, respectively.

Foreign Currency: Assets and liabilities of non-U.S. operations are translated into U.S. dollars at the fiscal year-end exchange rate. The related translation adjustments are recorded as a separate component of equity, except for the Company's Mexican operations. The U.S. dollar is considered the functional currency for the Company's Mexican operations and, therefore, the effect of translating assets and liabilities from the Mexican peso to the U.S. dollar is recorded in results of operations. Revenues and expenses of all non-U.S. operations are translated using average monthly exchange rates prevailing during the year.

Reclassification: Certain amounts in the prior period's audited consolidated financial statements have been reclassified to conform to the current period's presentation.

The following table includes other significant accounting policies that are described in other notes to the consolidated financial statements, including the footnote number:

Significant Accounting Policy	Note
Revenue Recognition	Revenue Recognition (Note 3)
Reportable segments	Business Segments (Note 4)
Stock-based compensation	Common Stock and Earnings per Share (Note 6)
Income taxes	Income Taxes (Note 7)
Derivatives and hedging activities	Financial Instruments and Derivative Financial Instruments (Note 9)
Fair value of financial instruments	Financial Instruments and Derivative Financial Instruments (Note 9) and Retirement Benefit Plans (Note 10)
Pension	Retirement Benefit Plans (Note 10)
Inventories	Inventories (Note 11)
Property, plant and equipment	Property, Plant and Equipment, Net (Note 12)
Impairment or disposal of long-lived assets	Property, Plant and Equipment, Net (Note 12)
Goodwill and intangible assets	Goodwill and Intangible Assets (Note 13)
Contingencies	Contingencies (Note 17)

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Recently Issued Accounting Standards

The following table provides a brief description of recent accounting pronouncements adopted January 1, 2019. Unless otherwise noted, the adoption of these standards did not have a material effect on the Company's financial position, results of operations, cash flows or related disclosures.

Standard	Description
Accounting Standards Update ("ASU") No. 2016-02, Leases (Topic 842) (Subsequent ASUs have been issued in 2017, 2018 and 2019 to update or clarify this guidance)	The guidance requires lessees (with the exception of short-term leases) to recognize, at the commencement date, a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term. See Note 15 for additional information.
ASU 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities	The guidance makes targeted changes to the hedge accounting model intended to facilitate financial reporting that more closely reflects an entity's risk management activities and to simplify the application of hedge accounting. Changes include expanding the types of risk management strategies eligible for hedge accounting, easing the documentation and effectiveness assessment requirements, changing how ineffectiveness is measured and changing the presentation and disclosure requirements for hedge accounting activities.
ASU 2018-02, Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income ("OCI")	The guidance provides an election to reclassify the stranded tax effects resulting from the Tax Cuts and Jobs Act (the "Tax Reform Act") from OCI to retained earnings. In addition, the guidance requires new disclosures regarding the election to adopt and the manner in which tax effects remaining in OCI are released. The Company adopted the standard on January 1, 2019 and recorded a cumulative adjustment to retained earnings of $3.9 million for income tax benefits stranded in OCI resulting from the Tax Reform Act.
ASU 2018-07, Compensation-Stock Compensation (Topic 718)	The guidance addresses the accounting for non-employee share-based payment transactions.
ASU 2018-16, Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes	The guidance permits the use of the OIS rate based on SOFR as a U.S. benchmark interest rate for hedge accounting purposes in addition to treasury obligations of the U.S. government, the LIBOR swap rate, the OIS rate based on the Federal Funds Effective Rate, and the Securities Industry and Financial Markets Association Municipal Swap Rate.

The following table provides a brief description of recent accounting pronouncements not yet adopted:

Standard	Description	Required Date of Adoption	Effect on the financial statements or other significant matters
ASU No. 2016-13, Financial Instruments-Credit Losses (Topic 326)(Subsequent ASUs have been issued in 2018 and 2019 to update or clarify this guidance)	The guidance eliminates the probable initial recognition threshold and requires an entity to reflect its current estimate of all expected credit losses. The guidance also requires additional disclosures in certain circumstances.	January 1, 2020	The Company's evaluation process of the new standard included, but was not limited to, identifying the financial assets affected by the standard and determining the required accounting upon adoption. The Company has evaluated its portfolio and acceptable credit loss models in the standard and continues to refine its processes and controls. The Company does not expect the adoption of the guidance to have a material effect on its financial position, results of operations, and cash flows. The Company is currently evaluating additional disclosures which may be required for the first quarter 2020 Form 10-Q.
ASU 2018-17, Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities	The guidance provides that indirect interests held through related parties in common control arrangements should be considered on a proportional basis for determining whether fees paid to decision makers and service providers are variable interests.	January 1, 2020	The adoption of the guidance will not have a material effect on the Company's financial position, results of operations, cash flows and related disclosures.

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Standard	Description	Required Date of Adoption	Effect on the financial statements or other significant matters
ASU 2018-18, Collaborative Arrangements (Topic 808): Clarifying the Interaction between Topic 808 and Topic 606	The guidance clarifies the accounting for collaborative arrangements in conjunction with the adoption of "Revenue from Contracts with Customers (Topic 606)."	January 1, 2020	The adoption of the guidance will not have a material effect on the Company's financial position, results of operations, cash flows and related disclosures.
ASU No. 2017-04, Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment	The guidance removes the second step of the two-step test for the measurement of goodwill impairment.	January 1, 2020	The adoption of the guidance will not have a material effect on the Company's financial position, results of operations, cash flows and related disclosures.
ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement	The guidance removes, modifies and adds certain disclosures relating to fair value measurements.	January 1, 2020	The adoption of the guidance will not have a material effect on the Company's financial position, results of operations, cash flows and related disclosures.
ASU 2018-15, Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract	The guidance aligns the requirements for capitalizing implementation costs incurred in a hosting agreement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software.	January 1, 2020	The adoption of the guidance will not have a material effect on the Company's financial position, results of operations, cash flows and related disclosures.
ASU 2019-12, Income Taxes (Topic 740), Simplifying the Accounting for Income Taxes	The guidance eliminates certain exceptions to the income tax guidance related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The new guidance also simplifies aspects of the accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill.	January 1, 2021	The Company is currently evaluating the guidance and the effect on its financial position, results of operations, cash flows and related disclosures.
ASU 2020-01, Investments—Equity Securities (Topic 321), Investments—Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815): Clarifying the Interactions between Topic 321, Topic 323, and Topic 815	The guidance clarifies certain interactions between the guidance to account for certain equity securities and investments under the equity method of accounting.	January 1, 2021	The Company is currently evaluating the guidance and the effect on its financial position, results of operations, cash flows and related disclosures.

NOTE 3—Revenue

Revenue is recognized when obligations under the terms of a contract with the customer are satisfied, which occurs when control of the trucks, parts, or services are transferred to the customer. Revenue is measured as the amount of consideration expected to be received in exchange for transferring goods or providing services. The satisfaction of performance obligations under the terms of a revenue contract generally gives rise for the right to payment from the customer. The Company's standard payment terms vary by the type and location of the customer and the products or services offered. Generally, the time between when revenue is recognized and when payment is due is not significant. Given the insignificant days between revenue recognition and receipt of payment, financing components do not exist between the Company and its customers. Taxes collected from customers are excluded from revenue. The estimated costs of product warranties are recognized as expense when the products are sold. See Note 16 for further information on product warranties.

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The majority of the Company's sales contracts contain performance obligations satisfied at a point in time when title and risks and rewards of ownership have transferred to the customer. Revenues for service contracts are recognized as the services are provided.

The Company also records variable consideration in the form of estimated reductions to revenues for customer programs and incentive offerings, including special pricing agreements, promotions and other volume-based incentives. Lift truck sales revenue is recorded net of estimated discounts. The estimated discount amount is based upon historical experience and trend analysis for each lift truck model. In addition to standard discounts, dealers can also request additional discounts that allow them to offer price concessions to customers. From time to time, the Company offers special incentives to increase market share or dealer stock and offers certain customers volume rebates if a specified cumulative level of purchases is obtained.

For contracts with customers that include multiple performance obligations, judgment is required to determine whether performance obligations specified in these contracts are distinct and should be accounted for as separate revenue transactions for recognition purposes. For such arrangements, revenue is allocated to each performance obligation based on its relative standalone selling price. Standalone selling prices are generally determined based on the prices charged to customers or using expected cost plus margin. Impairment losses recognized on receivables or contract assets were not significant for the year ended December 31, 2019 and 2018.

The Company generally expenses sales commissions when incurred because the amortization period would have been one year or less. These costs are reported on the line “Selling, general and administrative expenses” in the Consolidated Statements of Operations.

The Company pays for shipping and handling activities regardless of when control is transferred and has elected to account for shipping and handling as activities to fulfill the promise to transfer the good, rather than a promised service. These costs are reported on the line “Cost of sales” in the Consolidated Statements of Operations.

The following table disaggregates revenue by category:

	YEAR ENDED DECEMBER 31, 2019						
	Lift truck business						
	Americas	EMEA	JAPIC	Bolzoni	Nuvera	Elims	Total
Dealer sales	$ 1,051.2	$ 619.1	$ 214.5	$ —	$ —	$ —	$ 1,884.8
Direct customer sales	542.1	15.0	—	—	—	—	557.1
Aftermarket sales	396.4	95.3	34.2	—	—	—	525.9
Other	133.6	21.8	1.0	345.4	10.1	(187.9)	324.0
Total Revenues	$ 2,123.3	$ 751.2	$ 249.7	$ 345.4	$ 10.1	$ (187.9)	$ 3,291.8

	YEAR ENDED DECEMBER 31, 2018						
	Lift truck business						
	Americas	EMEA	JAPIC	Bolzoni	Nuvera	Elims	Total
Dealer sales	$ 1,156.6	$ 628.1	$ 203.1	$ —	$ —	$ —	$ 1,987.8
Direct customer sales	346.7	15.2	—	—	—	—	361.9
Aftermarket sales	370.9	107.4	36.8	—	—	—	515.1
Other	113.3	18.1	2.2	349.0	17.0	(185.3)	314.3
Total Revenues	$ 1,987.5	$ 768.8	$ 242.1	$ 349.0	$ 17.0	$ (185.3)	$ 3,179.1

Dealer sales are recognized when the Company transfers control based on the shipping terms of the contract, which is generally when the truck is shipped from the manufacturing facility to the dealers. The majority of direct customer sales are to National Account customers. In these transactions, the Company transfers control and recognizes revenue when it delivers the product to the customer according to the terms of the contract. Aftermarket sales represent parts sales, extended warranty and maintenance services. For the sale of aftermarket parts, the Company transfers control and recognizes revenue when parts are shipped to the customer. When customers are given the right to return eligible parts and accessories, the Company estimates the expected returns based on an analysis of historical experience. The Company adjusts estimated revenues at the earlier of when the most likely amount of consideration expected to be received changes or when the consideration becomes fixed. The Company recognizes revenue for extended warranty and maintenance agreements based on the standalone selling price over the life of the contract, which reflects the costs to perform under these contracts and corresponds with, and thereby depicts, the transfer of control to the customer. Bolzoni revenue from external customers is primarily the sale of attachments to customers. In these transactions, the Company transfers control and recognizes revenue according to the shipping terms of the contract. In the United States, Bolzoni also has revenue for sales of forklift components to HYG plants. Nuvera's revenues include the sale of battery box replacement ("BBR") units to HYG for sale to a dealer and development funding from third-party development agreements. In all revenue transactions, the Company receives cash equal to the invoice price and amount of consideration received and the revenue recognized may vary with changes in marketing incentives. Intercompany revenues between Bolzoni, Nuvera and the lift truck business have been eliminated.

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During the fourth quarter of 2018, Nuvera recognized revenue which had previously been deferred related to BBR units due to the inability to estimate total future warranty costs. The BBRs are new technology and the design of the product continues to evolve. The Company determined sufficient data was available in the fourth quarter of 2018 to reasonably estimate the future costs related to the sale of BBR units, including warranty costs, which were also recorded during the fourth quarter of 2018.

Deferred Revenue: The Company defers revenue for transactions that have not met the criteria for recognition at the time payment is collected, including extended warranties and maintenance contracts. In addition, for certain products, services and customer types, the Company collects payment prior to the transfer of control to the customer.

	Deferred Revenue	
Balance, December 31, 2018	$	61.8
Customer deposits and billings		76.8
Revenue recognized		(65.2)
Foreign currency effect		(0.1)
Balance, December 31, 2019	$	73.3

NOTE 4—Business Segments

The Company’s reportable segments for the lift truck business include the following three management units: the Americas, EMEA and JAPIC. Americas includes lift truck operations in the United States, Canada, Mexico, Brazil, Latin America and its corporate headquarters. EMEA includes lift truck operations in Europe, the Middle East and Africa. JAPIC includes lift truck operations in the Asia and Pacific regions, including China, as well as the equity earnings of SN operations. In 2018, the Company completed the acquisition of the majority interest in Hyster-Yale Maximal, which is also included in the JAPIC segment from the date of acquisition. Certain amounts are allocated to these geographic management units and are included in the segment results presented below, including product development costs, corporate headquarter's expenses and certain information technology infrastructure costs. These allocations among geographic management units are determined by senior management and not directly incurred by the geographic operations. In addition, other costs are incurred directly by these geographic management units based upon the location of the manufacturing plant or sales units, including manufacturing variances, product liability, warranty and sales discounts, which may not be associated with the geographic management unit of the ultimate end user sales location where revenues and margins are reported. Therefore, the reported results of each segment for the lift truck business cannot be considered stand-alone entities as all segments are inter-related and integrate into a single global lift truck business.

The Company reports the results of both Bolzoni and Nuvera as separate segments. Intercompany sales between Nuvera, Bolzoni and the lift truck business have been eliminated.

In 2019, as part of a plan to expand Bolzoni's capabilities in the United States, Bolzoni's North America attachment manufacturing moved into HYG's Sulligent, Alabama manufacturing facility. As a result, effective January 1, 2019, the Sulligent facility became a Bolzoni facility. Accordingly, the results of the Sulligent facility in 2019 have been included in the Bolzoni segment and the historical results of operations of the Sulligent facility for 2018 and 2017 have been included in the Bolzoni segment. As part of the reorganization of the two facilities, restructuring costs of approximately $2.5 million were incurred for the year ended December 31, 2019, respectively. See Note 20 for additional information on restructuring costs.

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Financial information for each of the reportable segments is presented in the following table. See Note 1 for a discussion of the Company's product lines. Refer to Note 2 for a description of the accounting policies of the reportable segments as well as a reference table for the remaining accounting policies described in the accompanying footnotes.

	2019	2018	2017
Revenues from external customers			
Americas	**$ 2,123.3**	$ 1,987.5	$ 1,834.1
EMEA	**751.2**	768.8	715.8
JAPIC	**249.7**	242.1	173.9
Lift truck business	**3,124.2**	2,998.4	2,723.8
Bolzoni	**345.4**	349.0	312.5
Nuvera	**10.1**	17.0	3.7
Eliminations	**(187.9)**	(185.3)	(154.8)
Total	**$ 3,291.8**	$ 3,179.1	$ 2,885.2
Gross profit (loss)			
Americas	**$ 354.8**	$ 314.3	$ 334.6
EMEA	**110.5**	102.8	95.7
JAPIC	**29.7**	22.1	20.2
Lift truck business	**495.0**	439.2	450.5
Bolzoni	**58.1**	63.7	54.8
Nuvera	**(11.2)**	(6.0)	(2.1)
Eliminations	**(0.1)**	0.1	(0.6)
Total	**$ 541.8**	$ 497.0	$ 502.6
Selling, general and administrative expenses			
Americas	**$ 266.0**	$ 238.9	$ 225.0
EMEA	**99.8**	96.2	88.9
JAPIC	**43.6**	36.6	26.3
Lift truck business	**409.4**	371.7	340.2
Bolzoni	**53.4**	54.2	48.4
Nuvera	**25.1**	32.3	39.9
Total	**$ 487.9**	$ 458.2	$ 428.5
Operating profit (loss)			
Americas	**$ 88.8**	$ 75.4	$ 109.6
EMEA	**10.7**	6.6	6.8
JAPIC	**(13.9)**	(14.5)	(6.1)
Lift truck business	**85.6**	67.5	110.3
Bolzoni	**4.7**	9.5	6.4
Nuvera	**(36.3)**	(38.3)	(42.0)
Eliminations	**(0.1)**	0.1	(0.6)
Total	**$ 53.9**	$ 38.8	$ 74.1

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	2019	2018	2017
Interest expense			
Americas	**$ 15.4**	$ 12.4	$ 12.3
EMEA	**2.9**	3.1	1.6
JAPIC	**0.9**	(0.1)	—
Lift truck business	**19.2**	15.4	13.9
Bolzoni	**0.7**	0.8	0.8
Nuvera	**—**	0.1	—
Eliminations	**(0.1)**	(0.3)	(0.1)
Total	**$ 19.8**	$ 16.0	$ 14.6
Interest income			
Americas	**$ (1.2)**	$ (2.2)	$ (3.3)
EMEA	**(0.4)**	(0.1)	—
JAPIC	**(0.2)**	(0.3)	(0.4)
Lift truck business	**(1.8)**	(2.6)	(3.7)
Bolzoni	**—**	—	—
Nuvera	**(0.1)**	—	—
Eliminations	**0.1**	0.2	0.1
Total	**$ (1.8)**	$ (2.4)	$ (3.6)
Other (income) expense			
Americas	**$ (4.4)**	$ (3.8)	$ (25.1)
EMEA	**(3.1)**	(3.4)	(1.1)
JAPIC	**(3.4)**	(4.5)	(4.5)
Lift truck business	**(10.9)**	(11.7)	(30.7)
Bolzoni	**0.2**	0.3	—
Nuvera	**(1.3)**	—	—
Total	**$ (12.0)**	$ (11.4)	$ (30.7)
Income tax provision (benefit)			
Americas	**$ 17.8**	$ 15.5	$ 57.3
EMEA	**2.3**	0.8	0.9
JAPIC	**0.7**	(5.7)	1.2
Lift truck business	**20.8**	10.6	59.4
Bolzoni	**0.2**	2.1	1.0
Nuvera	**(9.7)**	(10.5)	(15.3)
Eliminations	**—**	0.1	(0.2)
Total	**$ 11.3**	$ 2.3	$ 44.9

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	2019	2018	2017
Net income (loss) attributable to stockholders			
Americas	**$ 61.2**	$ 53.5	$ 68.4
EMEA	**9.0**	6.3	5.3
JAPIC	**(11.9)**	(3.1)	(1.9)
Lift truck business	**58.3**	56.7	71.8
Bolzoni	**2.8**	5.8	3.9
Nuvera	**(25.2)**	(27.9)	(26.7)
Eliminations	**(0.1)**	0.1	(0.4)
Total	**$ 35.8**	**$ 34.7**	**$ 48.6**
Total assets			
Americas	**$ 1,369.8**	$ 1,259.4	$ 1,146.0
EMEA	**749.7**	720.7	615.5
JAPIC	**337.3**	315.6	138.6
Eliminations	**(627.4)**	(578.7)	(304.6)
Lift truck business	**1,829.4**	1,717.0	1,595.5
Bolzoni	**286.0**	231.8	239.8
Nuvera	**57.7**	39.6	26.4
Eliminations	**(325.9)**	(246.3)	(213.8)
Total	**$ 1,847.2**	$ 1,742.1	$ 1,647.9
Depreciation and amortization			
Americas	**$ 17.5**	$ 20.9	$ 19.9
EMEA	**6.5**	7.4	7.1
JAPIC	**6.6**	5.2	2.6
Lift truck business	**30.6**	33.5	29.6
Bolzoni	**11.7**	9.7	11.2
Nuvera	**1.0**	0.8	2.0
Total	**$ 43.3**	$ 44.0	$ 42.8
Capital expenditures			
Americas	**$ 15.9**	$ 20.9	$ 25.5
EMEA	**17.2**	7.3	8.6
JAPIC	**4.7**	3.6	1.2
Lift truck business	**37.8**	31.8	35.3
Bolzoni	**5.6**	4.2	4.7
Nuvera	**6.3**	2.8	1.0
Total	**$ 49.7**	$ 38.8	$ 41.0
Cash and cash equivalents			
Americas	**$ 19.5**	$ 19.5	$ 191.2
EMEA	**5.4**	31.6	11.6
JAPIC	**21.9**	17.2	6.6
Lift truck business	**46.8**	68.3	209.4
Bolzoni	**17.4**	15.4	10.7
Nuvera	**0.4**	—	—
Total	**$ 64.6**	$ 83.7	$ 220.1

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Data by Geographic Region

No single country outside of the United States comprised 10% or more of revenues from unaffiliated customers. The "Other" category below includes Canada, Mexico, South America and the Asia and Pacific regions. In addition, no single customer comprised 10% or more of revenues from unaffiliated customers.

	United States	Europe, Africa and Middle East	Other	Consolidated
2019				
Revenues from unaffiliated customers, based on the customers' location	**$ 1,794.6**	**$ 923.6**	**$ 573.6**	**$ 3,291.8**
Long-lived tangible assets	**$ 232.9**	**$ 103.9**	**$ 127.9**	**$ 464.7**
2018				
Revenues from unaffiliated customers, based on the customers' location	$ 1,655.0	$ 940.5	$ 583.6	$ 3,179.1
Long-lived tangible assets	$ 180.9	$ 72.6	$ 118.3	$ 371.8
2017				
Revenues from unaffiliated customers, based on the customers' location	$ 1,588.8	$ 825.8	$ 470.6	$ 2,885.2
Long-lived tangible assets	$ 181.6	$ 82.3	$ 83.4	$ 347.3

NOTE 5—Quarterly Results of Operations (Unaudited)

A summary of the unaudited results of operations for the year ended December 31 is as follows:

	2019			
	First Quarter	**Second Quarter**	**Third Quarter**	**Fourth Quarter**
Revenues	**$ 834.8**	**$ 856.2**	**$ 766.0**	**$ 834.8**
Gross profit	**$ 126.2**	**$ 139.4**	**$ 135.0**	**$ 141.2**
Operating profit	**$ 3.4**	**$ 22.9**	**$ 19.5**	**$ 8.1**
Net income	**$ 3.2**	**$ 16.9**	**$ 13.1**	**$ 3.4**
Net income attributable to stockholders	**$ 3.4**	**$ 16.2**	**$ 12.8**	**$ 3.4**
Basic earnings per share	**$ 0.20**	**$ 0.97**	**$ 0.77**	**$ 0.20**
Diluted earnings per share	**$ 0.20**	**$ 0.97**	**$ 0.76**	**$ 0.20**

	2018			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenues	$ 788.5	$ 765.9	$ 783.9	$ 840.8
Gross profit	$ 132.1	$ 125.3	$ 117.7	$ 121.9
Operating profit (loss)	$ 19.2	$ 10.8	$ 12.2	$ (3.4)
Net income (loss)	$ 14.9	$ 5.7	$ 14.9	$ (1.2)
Net income (loss) attributable to stockholders	$ 14.9	$ 5.6	$ 15.4	$ (1.2)
Basic earnings (loss) per share	$ 0.90	$ 0.34	$ 0.93	$ (0.07)
Diluted earnings (loss) per share	$ 0.90	$ 0.34	$ 0.93	$ (0.07)

(Tabular Amounts in Millions, Except Per Share and Percentage Data)

NOTE 6—Common Stock and Earnings per Share

The Company's Class A common stock is traded on the New York Stock Exchange under the ticker symbol "HY." Because of transfer restrictions on Class B common stock, no trading market has developed, or is expected to develop, for the Company's Class B common stock. The Class B common stock is convertible into Class A common stock on a one-for-one basis at any time at the request of the holder. The Company's Class A common stock and Class B common stock have the same cash dividend rights per share. The Class A common stock has one vote per share and the Class B common stock has ten votes per share. The total number of authorized shares of Class A common stock and Class B common stock at December 31, 2019 was 125 million shares and 35 million shares, respectively. Treasury shares of Class A common stock totaling 221,190 and 327,385 at December 31, 2019 and 2018, respectively, have been deducted from shares outstanding.

Stock Compensation: The Company has stock compensation plans for certain employees in the U.S. that allow the grant of shares of Class A common stock, subject to restrictions, as a means of retaining and rewarding them for long-term performance and to increase ownership in the Company. Shares awarded under the plans are fully vested and entitle the stockholder to all rights of common stock ownership except that shares may not be assigned, pledged or otherwise transferred during the restriction period. In general, the restriction period ends at the earliest of (i) five years after the participant's retirement date, (ii) four, seven or ten years from the award date, as defined in the award, or (iii) the participant's death or permanent disability. Pursuant to the plans, the Company issued 111,148, 88,172 and 89,502 shares related to the years ended December 31, 2019, 2018 and 2017, respectively. After the issuance of these shares, there were 208,570 shares of Class A common stock available for issuance under these plans. Compensation expense related to these share awards was $7.0 million ($5.5 million net of tax), $4.5 million ($3.6 million net of tax) and $7.6 million ($6.0 million net of tax) for the years ended December 31, 2019, 2018 and 2017, respectively. Compensation expense at the grant date represents fair value based on the market price of the shares of Class A common stock. The Company also has a stock compensation plan for non-employee directors of the Company under which a portion of the non-employee directors' annual retainer is paid in restricted shares of Class A common stock. For the years ended December 31, 2019, $118,000 of each non-employee director's retainer of $178,000 was paid in restricted shares of Class A common stock. For the year ended December 31, 2018, $113,000 of $173,000 was paid in restricted shares of Class A common stock. For the year ended December 31, 2017, $110,000 of $166,000 was paid in restricted shares of Class A common stock. Shares awarded under the plan are fully vested and entitle the stockholder to all rights of common stock ownership except that shares may not be assigned, pledged or otherwise transferred during the restriction period. In general, the restriction period ends at the earliest of (i) ten years from the award date, (ii) the date of the director's death or permanent disability, (iii) five years (or earlier with the approval of the Board of Directors) after the director's date of retirement from the Board of Directors, or (iv) the date on which the director has both retired from the Board of Directors and reached 70 years of age. Pursuant to this plan, the Company issued 18,954, 16,196 and 14,480 shares related to the years ended December 31, 2019, 2018 and 2017, respectively. In addition to the mandatory retainer fee received in restricted stock, directors may elect to receive shares of Class A common stock in lieu of cash for up to 100% of the balance of their annual retainer, meeting attendance fees, committee retainer and any committee chairman's fees. These voluntary shares are not subject to any restrictions. Total shares issued under voluntary elections were 1,711, 2,182 and 2,006 in 2019, 2018 and 2017, respectively. After the issuance of these shares, there were 84,253 shares of Class A common stock available for issuance under this directors' plan. Compensation expense related to these awards was $1.2 million ($0.9 million net of tax), $1.2 million ($0.9 million net of tax) and $1.2 million ($0.9 million net of tax) for the years ended December 31, 2019, 2018 and 2017, respectively. Compensation expense at the grant date represents fair value based on the market price of the shares of Class A common stock.

Earnings per Share: For purposes of calculating earnings per share, no adjustments have been made to the reported amounts of net income attributable to stockholders. In addition, basic and diluted earnings per share for Class A common stock are the same as Class B common stock. The weighted average number of shares of Class A common stock and Class B common stock outstanding used to calculate basic and diluted earnings per share were as follows:

	2019	2018	2017
Basic weighted average shares outstanding	**16.645**	16.540	16.447
Dilutive effect of restricted stock awards	**0.081**	0.062	0.067
Diluted weighted average shares outstanding	**16.726**	16.602	16.514
Basic earnings per share	**$ 2.15**	$ 2.10	$ 2.95
Diluted earnings per share	**$ 2.14**	$ 2.09	$ 2.94
Cash dividends per share	**$ 1.2625**	$ 1.2325	$ 1.2025

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NOTE 7—Income Taxes

The components of income before income taxes and provision for income taxes for the years ended December 31 are as follows:

	2019	2018	2017
Income (loss) before income taxes			
U.S.	**$ (18.2)**	$ (7.5)	$ 48.3
Non-U.S.	**66.1**	44.1	45.5
	$ 47.9	$ 36.6	$ 93.8
Income tax provision			
Current tax provision (benefit):			
Federal	**$ 3.2**	$ (4.2)	$ 28.3
State	**1.9**	0.8	1.4
Non-U.S.	**13.0**	8.9	7.1
Total current	**$ 18.1**	$ 5.5	$ 36.8
Deferred tax provision (benefit):			
Federal	**$ (7.6)**	$ (2.6)	$ 10.7
State	**(1.9)**	0.3	(0.7)
Non-U.S.	**2.7**	(0.9)	(1.9)
Total deferred	**$ (6.8)**	$ (3.2)	$ 8.1
	$ 11.3	$ 2.3	$ 44.9

The Company made income tax payments of $12.5 million, $16.8 million and $14.0 million during 2019, 2018 and 2017, respectively. The Company received income tax refunds of $3.7 million, $0.8 million and $2.2 million during 2019, 2018 and 2017, respectively.

A reconciliation of the federal statutory and reported income tax rate for the year ended December 31 is as follows:

	2019	2018	2017
Income before income taxes	**$ 47.9**	$ 36.6	$ 93.8
Statutory taxes at 21% (35% in 2017)	**$ 10.1**	$ 7.7	$ 32.8
Tax Reform Act	**0.1**	(4.4)	38.2
Federal income tax credits	**(4.0)**	(3.7)	(1.8)
Equity interest earnings	**(1.5)**	(1.7)	(8.1)
Non-U.S. rate differences	**0.9**	(1.5)	(7.2)
Tax controversy resolution	**(1.4)**	(0.4)	—
State income taxes	**(0.2)**	—	0.2
Valuation allowance	**0.8**	3.0	0.1
Global intangible low-taxed income	**2.0**	1.2	—
Sale of non-U.S. investment	**—**	—	(9.1)
Unremitted non-U.S. earnings	**1.7**	—	(0.4)
Nondeductible compensation	**1.7**	0.9	0.1
Capitalized acquisition costs	**—**	0.9	—
Base-erosion and anti-abuse tax	**1.4**	—	—
Other	**(0.3)**	0.3	0.1
Income tax provision	**$ 11.3**	$ 2.3	$ 44.9
Reported income tax rate	**23.6%**	6.3%	47.9%

On December 22, 2017, the President of the United States signed into law the Tax Reform Act. The Tax Reform Act significantly revised the U.S. corporate income tax regime by, among other things, lowering the U.S. corporate income tax rate from 35% to 21% effective January 1, 2018, repealing the deduction for domestic production activities, allowing the immediate expensing of certain qualified capital expenditures, implementing a territorial tax system and imposing a one-time transition tax on certain unremitted earnings of non-U.S. subsidiaries. As a result of the Tax Reform Act in 2017, the Company recorded provisional tax effects of $38.2 million, comprised of $33.1 million of tax expense due to the transition tax on the unremitted earnings and profits of non-U.S. subsidiaries and $5.1 million of tax expense due to the effects on the Company's deferred tax assets and liabilities as of December 31, 2017. The Company has since finalized its calculation of earnings and profits, including the amounts held in cash or other specified assets and its calculation of available foreign tax credits consistent with the additional regulatory guidance issued during 2018 and 2019, resulting in a reduction in tax expense of $4.4 million and an increase in tax expense of $0.1 million in 2018 and 2019, respectively.

After the utilization of existing tax credits, the Company will pay cash taxes, including state income taxes, of $17.7 million with respect to the transition tax payable over an installment period of eight years, beginning in 2018. During 2019, the Company has provided for the anticipated withholding taxes on unremitted non-U.S. earnings for which no reinvestment plan has been identified and that may be repatriated in the foreseeable future. As such, the Company has provided a deferred tax liability with respect to these earnings of $1.7 million at December 31, 2019.

While the Tax Reform Act provides for a territorial system, beginning in 2018, it includes new anti-deferral and anti-base erosion provisions, the global intangible low-taxed income ("GILTI") provisions and the base-erosion and anti-abuse tax ("BEAT") provisions.

The GILTI provisions require the Company to include non-U.S. earnings in excess of an allowable return on the Company's non-U.S. subsidiary's tangible assets in its U.S. income tax return. The Company has elected to account for GILTI tax in the period in which it is incurred, and therefore has not provided any deferred tax amounts for GILTI.

The BEAT provisions in the Tax Reform Act create a minimum tax where a lower tax rate is applied to pre-tax income determined without the benefit of certain base-erosion payments made to related non-U.S. corporations. The base-erosion payments primarily consist of reimbursements for research and development performed by the Company's non-U.S. engineering centers. The Company will only be taxed under this regime if such minimum tax exceeds the regular U.S. corporate income tax. The Company recorded a BEAT expense of $1.4 million in 2019.

During 2017, the Company recognized a tax benefit of $9.1 million and tax expense of $1.4 million for unrecognized tax benefits, from an internal sale of a subsidiary between consolidated companies resulting in the repatriation of non-U.S. accumulated earnings taxed at higher rates. In addition, the Company settled various federal obligations in Brazil through the utilization of its federal net operating loss carryforwards for which a valuation allowance was previously provided. As a result of the utilization of the underlying deferred tax assets, the Company released the associated valuation allowance previously provided of $4.7 million. This was partly offset by a $1.6 million valuation allowance provided against deferred tax assets in China where the Company has determined that such deferred tax assets no longer meet the more likely than not standard for realization.

The Company continually evaluates its deferred tax assets to determine if a valuation allowance is required. A valuation allowance is required where realization is determined to no longer meet the "more likely than not" standard.

A detailed summary of the total deferred tax assets and liabilities in the Consolidated Balance Sheets resulting from differences in the book and tax basis of assets and liabilities follows:

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	December 31	
	2019	2018
Deferred tax assets		
Tax attribute carryforwards	**$ 25.3**	$ 28.6
Accrued expenses and reserves	**16.4**	15.1
Product warranties	**11.2**	9.9
Accrued product liability	**8.9**	5.6
Other employee benefits	**7.1**	4.3
Accrued pension benefits	**2.4**	4.6
Inventories	**1.7**	—
Other	**3.1**	2.3
Total deferred tax assets	**76.1**	70.4
Less: Valuation allowance	**31.4**	30.9
	44.7	39.5
Deferred tax liabilities		
Depreciation and amortization	**27.6**	28.0
Unremitted earnings	**1.7**	—
Inventories	**—**	3.0
Total deferred tax liabilities	**29.3**	31.0
Net deferred tax asset	**$ 15.4**	$ 8.5

The following table summarizes the tax carryforwards and associated carryforward periods and related valuation allowances where the Company has determined that realization is uncertain:

	December 31, 2019		
	Net deferred tax asset	Valuation allowance	Carryforwards expire during:
Non-U.S. net operating loss	**$ 17.0**	**$ 13.1**	2020 - Indefinite
Non-U.S. capital losses	**6.7**	**6.7**	2020 - Indefinite
State net operating losses and credits	**4.1**	**3.1**	2020 - 2038
Less: Unrecognized tax benefits	**(2.5)**	**—**	
Total	**$ 25.3**	**$ 22.9**	

	December 31, 2018		
	Net deferred tax asset	Valuation allowance	Carryforwards expire during:
Non-U.S. net operating loss	$ 21.2	$ 15.6	2019 - Indefinite
Non-U.S. capital losses	6.4	6.4	2019 - Indefinite
State net operating losses and credits	4.1	3.3	2019 - 2037
Less: Unrecognized tax benefits	(3.1)	—	
Total	$ 28.6	$ 25.3	

The establishment of a valuation allowance does not have an impact on cash, nor does such an allowance preclude the Company from using its loss carryforwards or other deferred tax assets in future periods. The tax net operating losses attributable to Brazil and Australia comprise a substantial portion of the non-U.S. net operating loss deferred tax assets and do not expire under local law.

During 2019 and 2018, the net valuation allowance provided against certain deferred tax assets increased by $0.5 million and decreased by $0.1 million, respectively. The change in the total valuation allowance in 2019 and 2018 included a net increase in tax expense of $0.8 million and $3.0 million, respectively, a net change in the overall U.S. dollar value of valuation allowances previously recorded in non-U.S. currencies recorded directly in equity of a net decrease of $0.3 million and $3.1 million in 2019 and 2018, respectively.

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Based upon a review of historical earnings and trends, forecasted earnings and the relevant expiration of carryforwards, the Company believes the valuation allowances provided are appropriate. At December 31, 2019, the Company had gross net operating loss carryforwards in U.S. state jurisdictions of $11.6 million and non-U.S. jurisdictions of $58.0 million.

The following is a reconciliation of total gross unrecognized tax benefits, defined as the aggregate tax effect of differences between the Company's tax return positions and the benefits recognized in the consolidated financial statements for the years ended December 31, 2019, 2018 and 2017. Approximately $13.5 million, $15.1 million and $10.9 million of these amounts as of December 31, 2019, 2018 and 2017, respectively, relate to permanent items that, if recognized, would impact the reported income tax rate. This amount differs from gross unrecognized tax benefits presented in the table below due to the increase in U.S. federal income taxes which would occur upon the recognition of the state tax benefits included herein.

	2019	2018	2017
Balance at January 1	**$ 15.2**	$ 10.9	$ 11.2
Additions (reductions) for business acquisitions	—	6.0	(1.0)
Additions based on tax positions related to the current year	**0.3**	0.4	2.7
Additions (reductions) for tax positions of prior years	**0.2**	0.3	(1.5)
Reductions due to settlements with taxing authorities and the lapse of the applicable statute of limitations	**(2.0)**	(1.6)	(1.2)
Other changes in unrecognized tax benefits including foreign currency translation adjustments	**(0.1)**	(0.8)	0.7
Balance at December 31	**$ 13.6**	$ 15.2	$ 10.9

The Company records interest and penalties on uncertain tax positions as a component of the income tax provision. The Company recorded a net increase of $0.1 million and $0.5 million during 2019 and 2018, and a net decrease of $0.1 million during 2017 in interest and penalties. In addition, during 2018, the balance of accrued interest and penalty was increased for uncertain tax positions related to business acquisitions by $7.7 million. During 2018, the total amount of interest and penalty was decreased by $0.5 million as a result of foreign currency translation into U.S. dollars. The total amount of interest and penalties accrued was $8.6 million, $8.5 million and $0.8 million as of December 31, 2019, 2018 and 2017, respectively.

The Company expects the amount of unrecognized tax benefits will change within the next twelve months. It is reasonably possible the Company will record unrecognized tax benefits within the next twelve months up to $7.0 million resulting from the possible expiration of certain statutes of limitation and settlement of audits. If recognized, the previously unrecognized tax benefits will be recorded as discrete tax benefits in the interim period in which the items are effectively settled. Approximately $4.3 million of the amount that may be recognized in the next twelve months relates to prior business acquisitions, and such amounts will be offset with the pretax reduction of the related indemnity receivable.

The tax returns of the Company and its non-U.S. subsidiaries are routinely examined by various taxing authorities. The Company has not been informed of any material assessment for which an accrual has not been previously provided and the Company would vigorously contest any material assessment. Management believes any potential adjustment would not materially affect the Company's financial condition or results of operations.

In general, the Company operates in taxing jurisdictions that provide a statute of limitations period ranging from three to five years for the taxing authorities to review the applicable tax filings. The examination of U.S. federal tax returns for all years prior to 2016 have been settled with the Internal Revenue Service or otherwise have essentially closed under the applicable statute of limitations. However, the Company has elected to voluntarily extend the statute of limitations for the U.S. federal tax return for 2012 at the request of its prior parent company such that attributes may be adjusted in limited circumstances. The Company is routinely under examination in various state and non-U.S. jurisdictions and in most cases the statute of limitations has not been extended. The Company believes these examinations are routine in nature and are not expected to result in any material tax assessments.

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NOTE 8—Reclassifications from OCI

The following table summarizes reclassifications out of accumulated other comprehensive income (loss) ("OCI") for each year ended December 31 as recorded in the Consolidated Statements of Operations:

Details about OCI Components	Amount Reclassified from OCI			Affected Line Item in the Statement Where Net Income Is Presented
	2019	2018	2017	
Gain (loss) on cash flow hedges:				
Interest rate contracts	**$ (0.3)**	$ —	$ —	Interest expense
Foreign exchange contracts	**(16.2)**	2.6	(5.7)	Cost of sales
Total before tax	**(16.5)**	2.6	(5.7)	Income before income taxes
Tax expense (benefit)	**4.5**	(0.8)	1.6	Income tax provision
Net of tax	**$ (12.0)**	$ 1.8	$ (4.1)	Net income
Amortization of defined benefit pension items:				
Actuarial loss	**$ (3.9)**	$ (3.8)	$ (4.5)	Other, net
Prior service (cost) credit	**(0.1)**	0.2	0.3	Other, net
Total before tax	**(4.0)**	(3.6)	(4.2)	Income before income taxes
Tax expense	**0.8**	0.7	1.0	Income tax provision
Net of tax	**$ (3.2)**	$ (2.9)	$ (3.2)	Net income
Total reclassifications for the period	**$ (15.2)**	$ (1.1)	$ (7.3)	

NOTE 9—Financial Instruments and Derivative Financial Instruments

The carrying amounts of cash and cash equivalents, accounts receivable and accounts payable approximate fair value due to the short-term maturities of these instruments. The fair values of revolving credit agreements and long-term debt, excluding finance leases, were determined using current rates offered for similar obligations taking into account company credit risk. This valuation methodology is Level 2 as defined in the fair value hierarchy. At December 31, 2019, the total carrying value and total fair value of revolving credit agreements and long-term debt, excluding finance leases, was $266.0 million and $265.1 million, respectively. At December 31, 2018, the total carrying value and total fair value of revolving credit agreements and long-term debt, excluding finance leases, was $284.2 million and $281.0 million, respectively.

Financial instruments that potentially subject the Company to concentration of credit risk consist principally of accounts receivable and derivatives. The large number of customers comprising the Company's customer base and their dispersion across many different industries and geographies mitigates concentration of credit risk on accounts receivable. To further reduce credit risk associated with accounts receivable, the Company performs periodic credit evaluations of its customers, but does not generally require advance payments or collateral. The Company enters into derivative contracts with high-quality financial institutions and limits the amount of credit exposure to any one institution.

Derivative Financial Instruments

Financial instruments held by the Company include cash and cash equivalents, accounts receivable, accounts payable, revolving credit agreements, long-term debt, interest rate swap agreements and forward foreign currency exchange contracts. The Company does not hold or issue financial instruments or derivative financial instruments for trading purposes.

The Company uses forward foreign currency exchange contracts to partially reduce risks related to transactions denominated in foreign currencies. These contracts hedge firm commitments and forecasted transactions relating to cash flows associated with sales and purchases denominated in non-functional currencies. The Company offsets fair value amounts related to foreign currency exchange contracts executed with the same counterparty. Changes in the fair value of forward foreign currency exchange contracts that are effective as hedges are recorded in OCI. Deferred gains or losses are reclassified from OCI to the Consolidated Statements of Operations in the same period as the gains or losses from the underlying transactions are recorded and are generally recognized in cost of sales. The ineffective portion of derivatives that are classified as hedges is immediately recognized in earnings and is also generally recognized in cost of sales.

The Company periodically enters into foreign currency exchange contracts that do not meet the criteria for hedge accounting. These derivatives are used to reduce the Company’s exposure to foreign currency risk related to forecasted purchase or sales transactions or forecasted intercompany cash payments or settlements. Gains and losses on these derivatives are generally recognized in cost of sales.

The Company has cross-currency swaps which hedge the variability of expected future cash flows that are attributable to foreign currency risk of certain intercompany loans. These agreements include initial and final exchanges of principal and associated interest payments from fixed euro denominated to fixed U.S.-denominated amounts. Changes in the fair value of cross-currency swaps that are effective as hedges are recorded in OCI. Deferred gains or losses are reclassified from OCI to the Consolidated Statements of Operations in the same period as the gains or losses from the underlying transactions are recorded and are generally recognized in other (income) expense and interest expense. The ineffective portion of derivatives that are classified as hedges is immediately recognized in earnings and is generally recognized in other (income) expense.

The Company uses interest rate swap agreements to partially reduce risks related to floating rate financing agreements that are subject to changes in the market rate of interest. Terms of the interest rate swap agreements require the Company to receive a variable interest rate and pay a fixed interest rate. The Company's interest rate swap agreements and its variable rate financings are predominately based upon the one or three-month LIBOR. Changes in the fair value of interest rate swap agreements that are effective as hedges are recorded in OCI. Deferred gains or losses are reclassified from OCI to the Consolidated Statements of Operations in the same period as the gains or losses from the underlying transactions are recorded and are generally recognized in interest expense. The ineffective portion of derivatives that are classified as hedges is immediately recognized in earnings in other (income) expense.

Cash flows from hedging activities are reported in the Consolidated Statements of Cash Flows in the same classification as the hedged item, generally as a component of cash flows from operations.

The Company measures its derivatives at fair value on a recurring basis using significant observable inputs. This valuation methodology is Level 2 as defined in the fair value hierarchy. The Company uses a present value technique that incorporates yield curves and foreign currency spot rates to value its derivatives and also incorporates the effect of the Company's and its counterparties' credit risk into the valuation.

The Company does not currently hold any nonderivative instruments designated as hedges or any derivatives designated as fair value hedges.

Foreign Currency Derivatives: The Company held forward foreign currency exchange contracts with a total notional amount of $960.9 million at December 31, 2019, primarily denominated in euros, U.S. dollars, Japanese yen, British pounds, Mexican pesos, Australian dollars, Swedish kroner, Brazilian real and Chinese renminbi. The Company held forward foreign currency exchange contracts with total notional amounts of $1.1 billion at December 31, 2018, primarily denominated in euros, U.S. dollars, Japanese yen, British pounds, Swedish kroner, Mexican pesos, Chinese Renminbi, Brazilian Real and Australian dollars. The fair value of these contracts approximated a net liability of $19.8 million and $19.5 million at December 31, 2019 and 2018, respectively.

For the years ended December 31, 2019 and 2018, there was no material ineffectiveness of forward foreign currency exchange contracts that qualify for hedge accounting. Forward foreign currency exchange contracts that qualify for hedge accounting are generally used to hedge transactions expected to occur within the next 36 months. The mark-to-market effect of forward foreign currency exchange contracts that are considered effective as hedges has been included in OCI. Based on market valuations at December 31, 2019, $11.4 million of the amount of net deferred loss included in OCI at December 31, 2019 is expected to be reclassified as expense into the Consolidated Statements of Operations over the next twelve months, as the transactions occur.

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Interest Rate Derivatives: The Company holds certain contracts that hedge interest payments on the Term Loan borrowings and one -month LIBOR borrowings. The following table summarizes the notional amounts, related rates, excluding spreads, and remaining terms of interest rate swap agreements at December 31, 2019 and 2018:

Notional Amount		Average Fixed Rate		
December 31 2019	December 31 2018	**December 31 2019**	December 31 2018	**Term at December 31, 2019**
$ 56.5	$ 56.5	**1.94%**	1.94%	Extending to November 2022
74.6	83.5	**2.20%**	2.20%	Extending to May 2023

The fair value of all interest rate swap agreements was a net liability of $2.1 million and a net asset of $1.6 million at December 31, 2019 and 2018, respectively. The mark-to-market effect of interest rate swap agreements that are considered effective as hedges has been included in OCI. Based on market valuations at December 31, 2019, $0.5 million of the amount net deferred loss included in OCI is expected to be reclassified as expense in the Consolidated Statement of Operations over the next twelve months, as cash flow payments are made in accordance with the interest rate swap agreements.

The following table summarizes the fair value of derivative instruments at December 31 as recorded in the Consolidated Balance Sheets:

	Asset Derivatives			Liability Derivatives		
	Balance sheet location	**2019**	2018	**Balance sheet location**	**2019**	2018
Derivatives designated as hedging instruments						
Cash Flow Hedges						
Interest rate swap agreements						
Current	Prepaid expenses and other	**$ —**	$ 0.6	Prepaid expenses and other	**$ —**	$ —
	Other current liabilities	**—**	—	Other current liabilities	**0.7**	—
Long-term	Other non-current assets	**—**	1.0	Other non-current assets	**—**	—
	Other long-term liabilities	**—**	—	Other long-term liabilities	**1.4**	—
Foreign currency exchange contracts						
Current	Prepaid expenses and other	**3.1**	2.1	Prepaid expenses and other	**1.5**	0.4
	Other current liabilities	**1.7**	3.3	Other current liabilities	**17.1**	12.8
Long-Term	Other non-current assets	**—**	1.0	Other non-current assets	**—**	0.6
	Other long-term liabilities	**3.5**	0.5	Other long-term liabilities	**9.6**	13.8
Total derivatives designated as hedging instruments		**$ 8.3**	$ 8.5		**$ 30.3**	$ 27.6
Derivatives not designated as hedging instruments						
Cash Flow Hedges						
Interest rate swap agreements						
Current	Prepaid expenses and other	**$ —**	$ —	Prepaid expenses and other	**$ —**	$ —
Long-term	Other long-term liabilities	**—**	—	Other long-term liabilities	**—**	—
Foreign currency exchange contracts						
Current	Prepaid expenses and other	**0.4**	0.4	Prepaid expenses and other	**0.2**	0.2
	Other current liabilities	**2.3**	1.5	Other current liabilities	**2.4**	0.5
Total derivatives not designated as hedging instruments		**$ 2.7**	$ 1.9		**$ 2.6**	$ 0.7
Total derivatives		**$ 11.0**	$ 10.4		**$ 32.9**	$ 28.3

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The following table summarizes the offsetting of the fair value of derivative instruments on a gross basis by counterparty at December 31, 2019 and 2018 as recorded in the Consolidated Balance Sheets:

	Derivative Assets as of December 31, 2019				**Derivative Liabilities as of December 31, 2019**			
	Gross Amounts of Recognized Assets	**Gross Amounts Offset**	**Net Amounts Presented**	**Net Amount**	**Gross Amounts of Recognized Liabilities**	**Gross Amounts Offset**	**Net Amounts Presented**	**Net Amount**
Cash Flow Hedges								
Interest rate swap agreements	$ —	$ —	$ —	$ —	$ 2.1	$ —	$ 2.1	$ 2.1
Foreign currency exchange contracts	1.8	(1.8)	—	—	21.6	(1.8)	19.8	19.8
Total derivatives	$ 1.8	$ (1.8)	$ —	$ —	$ 23.7	$ (1.8)	$ 21.9	$ 21.9

	Derivative Assets as of December 31, 2018				Derivative Liabilities as of December 31, 2018			
	Gross Amounts of Recognized Assets	Gross Amounts Offset	Net Amounts Presented	Net Amount	Gross Amounts of Recognized Liabilities	Gross Amounts Offset	Net Amounts Presented	Net Amount
Cash Flow Hedges								
Interest rate swap agreements	$ 1.6	$ —	$ 1.6	$ 1.6	$ —	$ —	$ —	$ —
Foreign currency exchange contracts	2.3	(2.3)	—	—	21.8	(2.3)	19.5	19.5
Total derivatives	$ 3.9	$ (2.3)	$ 1.6	$ 1.6	$ 21.8	$ (2.3)	$ 19.5	$ 19.5

The following table summarizes the pre-tax impact of derivative instruments for each year ended December 31 as recorded in the Consolidated Statements of Operations:

Derivatives in Cash Flow Hedging Relationships	Amount of Gain or (Loss) Recognized in OCI on Derivative (Effective Portion)			Location of Gain or (Loss) Reclassified from OCI into Income (Effective Portion)	Amount of Gain or (Loss) Reclassified from OCI into Income (Effective Portion)		
	2019	2018	2017		**2019**	2018	2017
Cash Flow Hedges							
Interest rate swap agreements	$ (3.8)	$ 2.0	$ 0.5	Interest expense	$ (0.3)	$ —	$ —
Foreign currency exchange contracts	(18.0)	(18.8)	14.1	Cost of sales	(16.2)	2.6	(5.7)
	$ (21.8)	$ (16.8)	$ 14.6		$ (16.5)	$ 2.6	$ (5.7)

Derivatives Not Designated as Hedging Instruments	Location of Gain or (Loss) Recognized in Income on Derivative	Amount of Gain or (Loss) Recognized in Income on Derivative		
		2019	2018	2017
Cash flow hedges				
Interest rate swap agreements	Other	$ —	$ 0.3	$ 0.2
Foreign currency exchange contracts	Cost of sales	(5.3)	(2.3)	2.0
Total		$ (5.3)	$ (2.0)	$ 2.2

NOTE 10—Retirement Benefit Plans

Defined Benefit Plans: The Company maintains various defined benefit pension plans that provide benefits based on years of service and average compensation during certain periods. The Company's policy is to make contributions to fund these plans within the range allowed by applicable regulations. Plan assets consist primarily of publicly traded stocks and government and corporate bonds.

Pension benefits for employees covered under the Company's U.S. and U.K. plans are frozen. Only certain grandfathered employees in the Netherlands still earn retirement benefits under defined benefit pension plans. All other eligible employees of the Company, including employees whose pension benefits are frozen, receive retirement benefits under defined contribution retirement plans.

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During 2018 and 2017, the Company recognized a settlement loss of $1.1 million and $1.0 million, respectively, resulting from lump-sum distributions exceeding the total projected interest cost for the plan year for its U.S. pension plans.

The assumptions used in accounting for the defined benefit plans were as follows for the years ended December 31:

	2019	2018	2017
United States Plans			
Weighted average discount rates	**3.02%**	4.10%	3.40%
Expected long-term rate of return on assets	**7.50%**	7.50%	7.50%
Non-U.S. Plans			
Weighted average discount rates	**0.37%-1.85%**	1.13%-2.65%	0.88% - 2.40%
Rate of increase in compensation levels	**1.00%-2.50%**	1.50%-2.50%	1.50% - 2.50%
Expected long-term rate of return on assets	**1.00%-7.00%**	1.80%-7.00%	1.70% - 7.00%

Each year, the assumptions used to calculate the benefit obligation are used to calculate the net periodic pension expense for the following year.

Set forth below is a detail of the net periodic pension expense for the defined benefit plans for the years ended December 31:

	2019	2018	2017
United States Plans			
Interest cost	**$ 2.6**	$ 2.5	$ 2.7
Expected return on plan assets	**(4.5)**	(4.9)	(4.9)
Amortization of actuarial loss	**2.0**	1.8	1.8
Amortization of prior service credit	**—**	(0.2)	(0.3)
Settlements	**—**	1.1	1.0
Net periodic pension expense	**$ 0.1**	$ 0.3	$ 0.3
Non-U.S. Plans			
Service cost	**$ 0.1**	$ 0.2	$ 0.2
Interest cost	**4.1**	4.0	4.1
Expected return on plan assets	**(10.2)**	(10.5)	(9.2)
Amortization of actuarial loss	**1.9**	2.0	2.7
Amortization of prior service cost	**0.1**	—	—
Net periodic pension benefit	**$ (4.0)**	$ (4.3)	$ (2.2)

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Set forth below is a detail of other changes in plan assets and benefit obligations recognized in other comprehensive income (loss) for the year ended December 31:

	2019	2018	2017
United States Plans			
Current year actuarial (gain) loss	**$ (0.4)**	$ 4.8	$ (2.0)
Amortization of actuarial loss	**(2.0)**	(1.8)	(1.8)
Amortization of prior service credit	**—**	0.2	0.3
Curtailments and Settlements	**—**	(1.1)	(1.0)
Total recognized in other comprehensive income (loss)	**$ (2.4)**	$ 2.1	$ (4.5)
Non-U.S. Plans			
Current year actuarial (gain) loss	**$ (0.1)**	$ 18.8	$ (13.8)
Current year prior service (credit) cost	**—**	1.9	—
Amortization of actuarial loss	**(1.9)**	(2.0)	(2.7)
Amortization of prior service (cost) credit	**(0.1)**	—	—
Total recognized in other comprehensive income (loss)	**$ (2.1)**	$ 18.7	$ (16.5)

The following table sets forth the changes in the benefit obligation and the plan assets during the year and the funded status of the defined benefit plans at December 31:

	2019		2018	
	U.S. Plans	**Non-U.S. Plans**	U.S. Plans	Non-U.S. Plans
Change in benefit obligation				
Projected benefit obligation at beginning of year	**$ 66.8**	**$ 166.4**	$ 74.8	$ 179.0
Service cost	**—**	**0.1**	—	0.2
Interest cost	**2.6**	**4.1**	2.5	4.0
Actuarial (gain) loss	**6.5**	**17.7**	(3.9)	(2.9)
Benefits paid	**(5.7)**	**(6.9)**	(4.4)	(6.4)
Employee contributions	**—**	**0.2**	—	0.2
Plan amendments	**—**	**—**	—	2.0
Lump sum payments	**—**	**—**	(2.2)	—
Foreign currency exchange rate changes	**—**	**4.7**	—	(9.7)
Projected benefit obligation at end of year	**$ 70.2**	**$ 186.3**	$ 66.8	$ 166.4
Accumulated benefit obligation at end of year	**$ 70.2**	**$ 185.6**	$ 66.8	$ 165.8
Change in plan assets				
Fair value of plan assets at beginning of year	**$ 60.7**	**$ 152.3**	$ 71.0	$ 178.3
Actual return on plan assets	**11.4**	**27.9**	(3.7)	(12.0)
Employer contributions	**—**	**1.2**	—	0.8
Employee contributions	**—**	**0.2**	—	0.2
Benefits paid	**(5.7)**	**(6.9)**	(4.4)	(6.4)
Settlements	**—**	**—**	(2.2)	—
Foreign currency exchange rate changes	**—**	**4.8**	—	(8.6)
Fair value of plan assets at end of year	**$ 66.4**	**$ 179.5**	$ 60.7	$ 152.3
Funded status at end of year	**$ (3.8)**	**$ (6.8)**	$ (6.1)	$ (14.1)

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	2019		2018	
	U.S. Plans	**Non-U.S. Plans**	U.S. Plans	Non-U.S. Plans
Amounts recognized in the consolidated balance sheets consist of:				
Noncurrent liabilities	**$ (3.8)**	**$ (6.8)**	$ (6.1)	$ (14.1)
	$ (3.8)	**$ (6.8)**	$ (6.1)	$ (14.1)
Components of accumulated other comprehensive income (loss) consist of:				
Actuarial loss	**$ 37.3**	**$ 54.9**	$ 39.7	$ 56.9
Prior service cost (credit)	**—**	**1.7**	—	1.8
Deferred taxes	**(9.4)**	**(7.6)**	(9.9)	(8.0)
Change in statutory tax rate	**0.4**	**(2.0)**	(4.4)	(2.0)
Foreign currency translation adjustment	**—**	**2.0**	—	2.0
	$ 28.3	**$ 49.0**	$ 25.4	$ 50.7

The projected benefit obligation included in the table above represents the actuarial present value of benefits attributable to employee service rendered to date, including the effects of estimated future pay increases. The accumulated benefit obligation also reflects the actuarial present value of benefits attributable to employee service rendered to date, but does not include the effects of estimated future pay increases.

Expected amortization of amounts included in accumulated other comprehensive income (loss) to be recognized in net periodic benefit cost in 2020 are:

	Amount	Net of tax
Actuarial loss	$ 4.7	$ 3.7
Prior service cost	$ 0.1	$ 0.1

In 2020, the Company expects to contribute $0.4 million and $3.2 million to its U.S. and non-U.S. pension plans, respectively.

Pension benefit payments are made from assets of the pension plans. Future pension benefit payments expected to be paid from assets of the pension plans are:

	U.S. Plans	**Non-U.S. Plans**
2020	$ 6.1	$ 6.4
2021	5.9	6.5
2022	5.8	6.7
2023	5.6	6.8
2024	5.3	7.2
2025 - 2029	21.7	41.1
	$ 50.4	$ 74.7

The expected long-term rate of return on defined benefit plan assets reflects management's expectations of long-term rates of return on funds invested to provide for benefits included in the projected benefit obligations. The Company has established the expected long-term rate of return assumption for plan assets by considering the historical rates of return over a period of time that is consistent with the long-term nature of the underlying obligations of these plans as well as a forward-looking rate of return. The historical and forward-looking rates of return for each of the asset classes used to determine the Company's estimated rate of return assumption were based upon the rates of return earned or expected to be earned by investments in the equivalent benchmark market indices for each of the asset classes.

Expected returns for most of the Company's pension plans are based on a calculated market-related value of assets. Under this methodology, asset gains and losses resulting from actual returns that differ from the Company's expected returns are recognized in the market-related value of assets ratably over three years.

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The pension plans maintain an investment policy that, among other things, establishes a portfolio asset allocation methodology with percentage allocation bands for individual asset classes. The investment policy provides that investments are reallocated between asset classes as balances exceed or fall below the appropriate allocation bands.

The following is the actual allocation percentage and target allocation percentage for the Company's U.S. pension plan assets at December 31:

	2019 Actual Allocation	2018 Actual Allocation	Target Allocation Range
U.S. equity securities	**45.4%**	43.7%	36% - 54%
Non-U.S. equity securities	**20.2%**	19.0%	16% - 24%
Fixed income securities	**33.7%**	36.4%	30% - 40%
Money market	**0.7%**	0.9%	0% - 10%

The following is the actual allocation percentage and target allocation percentage for the Company's U.K. pension plan assets at December 31:

	2019 Actual Allocation	2018 Actual Allocation	Target Allocation
U.K. equity securities	**10.4%**	20.9%	10%
Non-U.K. equity securities	**60.7%**	48.0%	60%
Fixed income securities	**28.1%**	30.4%	30%
Money market	**0.8%**	0.7%	—%

The Company maintains a pension plan for certain employees in the Netherlands which has purchased annuity contracts to meet its obligations.

The defined benefit pension plans do not have any direct ownership of Hyster-Yale common stock.

The fair value of each major category of U.S. plan assets for the Company’s pension plans are valued using quoted market prices in active markets for identical assets, or Level 1 in the fair value hierarchy. The fair value of each major category of Non-U.S. plan assets for the Company’s pension plans are valued using observable inputs, either directly or indirectly, other than quoted market prices in active markets for identical assets, or Level 2 in the fair value hierarchy. Following are the values as of December 31:

	Level 1		**Level 2**	
	2019	2018	**2019**	2018
U.S. equity securities	**$ 30.2**	$ 26.5	**$ 34.4**	$ 21.2
U.K. equity securities	**—**	—	**16.9**	28.8
Non-U.S., non-U.K. equity securities	**13.4**	11.6	**64.8**	44.8
Fixed income securities	**22.4**	22.1	**62.1**	56.5
Money market	**0.4**	0.5	**1.3**	1.0
Total	**$ 66.4**	$ 60.7	**$ 179.5**	$ 152.3

Defined Contribution Plans: The Company has defined contribution (401(k)) plans for substantially all U.S. employees and similar plans for employees outside of the United States. The Company generally matches employee contributions based on plan provisions. In addition, in the United States and United Kingdom, the Company has defined contribution retirement plans whereby the contribution to participants is determined annually based on a formula that includes the effect of actual compared with targeted operating results and the age and compensation of the participants. Total costs, including Company contributions, for these plans were $26.6 million, $26.5 million and $24.3 million in 2019, 2018 and 2017, respectively.

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NOTE 11—Inventories

Inventories are stated at the lower of cost or market for last-in, first-out ("LIFO") inventory or lower of cost or net realizable value for first-in, first-out ("FIFO") inventory. At December 31, 2019 and 2018, 53% and 51%, respectively, of total inventories were determined using the LIFO method, which consists primarily of manufactured inventories, including service parts, in the United States. The FIFO method is used with respect to all other inventories.

The cost components of inventory include raw materials, purchased components, direct and indirect labor, utilities, depreciation, inbound freight charges, purchasing and receiving costs, inspection costs and warehousing costs. Reserves are maintained for estimated obsolescence or excess inventory equal to the difference between the cost of inventory and the net realizable value based upon assumptions about future demand and market conditions. Upon a subsequent sale or disposal of the impaired inventory, the corresponding reserve for impaired value is relieved to ensure that the cost basis of the inventory reflects any write-downs.

Inventories are summarized as follows:

	December 31	
	2019	2018
Finished goods and service parts	**$ 276.2**	$ 248.6
Work in process	**22.1**	30.0
Raw materials	**310.5**	307.0
Total manufactured inventories	**608.8**	585.6
LIFO reserve	**(48.9)**	(52.0)
Total inventory	**$ 559.9**	$ 533.6

NOTE 12—Property, Plant and Equipment, Net

Property, plant and equipment are recorded at cost. Depreciation and amortization are provided in amounts sufficient to amortize the cost of the assets, including assets recorded under finance leases, over their estimated useful lives using the straight-line method. Buildings are generally depreciated using a 20, 40 or 50-year life, improvements to land and buildings are depreciated over estimated useful lives ranging up to 40 years and equipment is depreciated over estimated useful lives ranging from three to 15 years. Capital grants received for the acquisition of equipment are recorded as reductions of the related equipment cost and reduce future depreciation expense. Repairs and maintenance costs are expensed when incurred.

The Company periodically evaluates long-lived assets, including intangible assets with finite lives, for impairment when changes in circumstances or the occurrence of certain events indicate the carrying amount of an asset may not be recoverable. Upon identification of indicators of impairment, assets and liabilities are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets or liabilities. The asset group would be considered impaired when the estimated future undiscounted cash flows generated by the asset group are less than carrying value. If the carrying value of an asset group is considered impaired, an impairment charge is recorded for the amount that the carrying value of the asset group exceeds its fair value. Fair value is estimated 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.

During the fourth quarter of 2017, in connection with the preparation of the Company's annual operating plan for 2018 and longer-term forecast, the Company identified indicators of impairment at Nuvera due to the extension of time expected to commercialize Nuvera's products and the related length of time needed to achieve break-even operating results and positive cash flows. Accordingly, the Company performed an impairment analysis during the fourth quarter of 2017 of Nuvera's long-lived assets, including property, plant and equipment and intangible assets with finite lives. Based on this analysis, it was determined that the fair value of these assets was less than the respective carrying amounts of such assets, and accordingly, the Company recognized an impairment charge of $4.9 million in the Nuvera segment, which is included in selling, general and administrative expenses in the consolidated statement of operations. The impairment charge reduced property, plant, and equipment by $3.7 million and intangible assets by $1.2 million. The estimated fair value of intangible assets with finite lives was determined using a relief from royalty method and property, plant and equipment was determined using a cost approach. These valuation methods use Level 3 inputs under the fair value hierarchy.

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Property, plant and equipment, net includes the following:

	December 31	
	2019	2018
Land and land improvements	**$ 31.8**	$ 32.9
Plant and equipment	**764.0**	740.0
Property, plant and equipment, at cost	**795.8**	772.9
Allowances for depreciation and amortization	**(487.3)**	(476.7)
	$ 308.5	$ 296.2

Total depreciation and amortization expense on property, plant and equipment was $36.7 million, $37.4 million and $37.4 million during 2019, 2018, and 2017, respectively.

NOTE 13—Goodwill and Intangible Assets

The Company evaluates the carrying amount of goodwill and indefinite-lived intangible assets for impairment annually as of May 1st and between annual evaluations if changes in circumstances or the occurrence of certain events indicate potential impairment. The Company uses either a qualitative or quantitative analysis to determine whether fair value exceeds carrying value. Goodwill impairment testing for 2019 was performed using a quantitative analysis for each reporting unit. As part of the quantitative testing process for goodwill, the Company estimated fair values using a discounted cash flow approach from the perspective of a market participant. Significant estimates in the discounted cash flow approach are cash flow forecasts of the reporting units, the discount rate, the terminal business value and the projected income tax rate. The cash flow forecasts of the reporting units are based upon management’s long-term view of markets and are the forecasts that are used by senior management and the Board of Directors to evaluate operating performance. The discount rate utilized is management’s estimate of what the market’s weighted average cost of capital is for a company with a similar debt rating and stock volatility, as measured by beta. The projected income tax rates utilized are the statutory tax rates for the countries where each reporting unit operates. The terminal business value is determined by applying a business growth factor to the latest year for which a forecast exists. As part of the goodwill quantitative testing process, the Company evaluates whether there are reasonably likely changes to management’s estimates that would have a material impact on the results of the goodwill impairment testing.

The annual testing of goodwill for impairment was conducted as of May 1, 2019. The fair value of each reporting unit was in excess of its carrying value and thus, no impairment exists.

The indefinite-lived intangible assets are the Bolzoni trademarks. Fair values used in testing for potential impairment of the trademarks are calculated by applying an estimated market value royalty rate to the forecasted revenues of the businesses that utilize those assets. The assumed cash flows from this calculation are discounted using Bolzoni’s weighted average cost of capital. The annual testing of indefinite-lived intangibles for impairment was conducted as of May 1, 2019. The fair value of the indefinite-lived intangible assets was in excess of its carrying value and thus, no impairment exists.

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The following table summarizes intangible assets, other than goodwill, recorded in the consolidated balance sheets:

December 31, 2019	**Gross Carrying Amount**		**Accumulated Amortization**		**Net Balance**	
Intangible assets not subject to amortization						
Trademarks	**$**	**16.9**	**$**	**—**	**$**	**16.9**
Intangible assets subject to amortization						
Customer and contractual relationships		**38.9**		**(13.5)**		**25.4**
Patents and technology		**20.6**		**(7.3)**		**13.3**
Trademarks		**5.3**		**(0.8)**		**4.5**
Total	**$**	**81.7**	**$**	**(21.6)**	**$**	**60.1**
December 31, 2018	Gross Carrying Amount		Accumulated Amortization		Net Balance	
Intangible assets not subject to amortization						
Trademarks	$	17.2	$	—	$	17.2
Intangible assets subject to amortization						
Customer and contractual relationships	$	39.5	$	(10.0)	$	29.5
Patents and technology		20.9		(4.9)		16.0
Trademarks		5.4		(0.4)		5.0
Total	$	83.0	$	(15.3)	$	67.7

As further described in Note 12, in 2017 the Company recognized a $1.2 million impairment charge for Nuvera consisting of $0.8 million and $0.4 million for patents and technology and trademarks, respectively.

Amortization expense for intangible assets, which is recognized on a straight-line basis over the estimated useful life of the related asset, was $6.6 million and $6.6 million in 2019 and 2018, respectively. Expected annual amortization expense of other intangible assets, based upon December 31, 2019 U.S. dollar values, for the next five years is as follows: $5.7 million in 2020, $4.8 million in 2021, $4.3 million in 2022, $4.3 million in 2023 and $4.3 million in 2024. The weighted-average amortization period for intangible assets is as follows:

Intangible assets subject to amortization	**Weighted-Average Useful Lives (Years)**
Customer relationships	12
Engineering drawings	7
Patents	6
Trademarks	17

The following table summarizes goodwill by segment as of December 31, 2019 and 2018:

	Carrying Amount of Goodwill									
	Americas		**EMEA**		**JAPIC**		**Bolzoni**		**Total**	
Balance at January 1, 2018	$	1.7	$	0.8	$	—	$	56.6	$	59.1
Additions		—		0.3		55.1		—		55.4
Foreign currency translation		—		—		(3.6)		(2.6)		(6.2)
Balance at December 31, 2018	$	1.7	$	1.1	$	51.5	$	54.0	$	108.3
Foreign currency translation		—		**(0.1)**		**(0.6)**		**(0.9)**		**(1.6)**
Balance at December 31, 2019	**$**	**1.7**	**$**	**1.0**	**$**	**50.9**	**$**	**53.1**	**$**	**106.7**

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NOTE 14—Current and Long-Term Financing

The following table summarizes available and outstanding borrowings:

	December 31	
	2019	2018
Total outstanding borrowings:		
Revolving credit agreements	**$ 7.7**	$ 13.3
Term loan, net	**172.2**	181.3
Other debt	**86.1**	89.6
Finance lease obligations	**21.0**	17.3
Total debt outstanding	**$ 287.0**	$ 301.5
Plus: discount on term loan and unamortized deferred financing fees	**2.8**	3.7
Total debt outstanding, gross	**$ 289.8**	$ 305.2
Current portion of borrowings outstanding	**$ 82.3**	$ 91.4
Long-term portion of borrowings outstanding	**$ 204.7**	$ 210.1
Total available borrowings, net of limitations, under revolving credit agreements	**$ 260.6**	$ 217.5
Unused revolving credit agreements	**$ 252.9**	$ 204.2
Weighted average stated interest rate on total borrowings	**4.6%**	5.0%
Weighted average effective interest rate on total borrowings (including interest rate swap agreements)	**3.6%**	4.0%

Annual maturities of total debt, excluding finance leases, are as follows:

2020	$ 74.7
2021	33.7
2022	15.4
2023	145.0
2024	—
Thereafter	—
	$ 268.8

Interest paid on total debt was $19.5 million, $15.0 million and $13.6 million during 2019, 2018 and 2017, respectively.

The Company has a $240.0 million secured, floating-rate revolving credit facility (the "Facility") that expires in April 2022. There were $0.3 million of borrowings outstanding under the Facility at December 31, 2019. The availability under the Facility, at December 31, 2019, was $234.7 million, which reflects reductions of $5.0 million for letters of credit and other restrictions. As of December 31, 2019, the Facility consisted of a U.S. revolving credit facility of $150.0 million and a non-U.S. revolving credit facility of $90.0 million. The obligations under the Facility are generally secured by a first lien on the working capital assets of the borrowers in the Facility, which include but are not limited to, cash and cash equivalents, accounts receivable and inventory (the "Facility Collateral") and a second lien on the Term Loan Collateral (defined below). The approximate book value of assets held as collateral under the Facility was $900 million as of December 31, 2019.

Borrowings bear interest at a floating rate based on a base rate or LIBOR, as defined in the Facility, plus an applicable margin. The applicable margins, as of December 31, 2019, for U.S. base rate loans and LIBOR loans were 0.50% and 1.50%, respectively. The applicable margin, as of December 31, 2019, for non-U.S. base rate loans and LIBOR loans was 1.50%. The applicable interest rates for the borrowings outstanding under the Facility on December 31, 2019 was 1.50%. The Facility also required the payment of a fee of 0.250% per annum on the unused commitment as of December 31, 2019.

The Facility includes restrictive covenants, which, among other things, limit additional borrowings and investments of the Company and its subsidiaries subject to certain thresholds, as set forth in the Facility, and limits the payment of dividends. If average availability for both total and U.S. revolving credit facilities, on a pro forma basis, is greater than 15% and less than or equal to 20%, the Company may pay dividends subject to achieving a minimum Fixed Charge Coverage Ratio of 1.00 to 1.00, as defined in the Facility. If the average availability is greater than 20% for both total and U.S. revolving credit facilities, on a pro forma basis, the Company may pay dividends without any minimum Fixed Charge Coverage Ratio requirement. The Facility also requires the Company to achieve a minimum Fixed Charge Coverage Ratio in certain circumstances in which total excess availability is less than 10% of the total commitments under the Facility or excess availability under the U.S. revolving credit facility is less than 10% of the U.S. revolver commitments, as defined in the Facility. At December 31, 2019, the Company was in compliance with the covenants in the Facility.

The Company also has a $200.0 million term loan (the "Term Loan"), which matures in May 2023. The Term Loan requires quarterly principal payments on the last business day of each March, June, September and December in an amount equal to $2.5 million. The final principal repayment is due on May 30, 2023. The Company may also be required to make mandatory prepayments, in certain circumstances, as provided in the Term Loan. At December 31, 2019, there was $175.0 million of principal outstanding under the Term Loan which has been reduced in the Consolidated Balance Sheet by $2.8 million of discounts and unamortized deferred financing fees.

The obligations under the Term Loan are generally secured by a first priority lien on the present and future shares of capital stock, material real property, fixtures and general intangibles consisting of intellectual property (collectively, the "Term Loan Collateral") and a second priority lien on the Facility Collateral. The approximate book value of assets held as collateral under the Term Loan was $600 million as of December 31, 2019.

Borrowings under the Term Loan bear interest at a floating rate, which can be a base rate or Eurodollar rate, as defined in the Term Loan, plus an applicable margin. The applicable margin, as provided in the Term Loan, is 2.25% for U.S. base rate loans and 3.25% for Eurodollar loans. The interest rate on the amount outstanding under the Term Loan at December 31, 2019 was 5.05%. In addition, the Term Loan includes restrictive covenants, which, among other things, limit additional borrowings and investments of the Company subject to certain thresholds. The Term Loan limits the payment of regularly scheduled dividends and other restricted payments to $50.0 million in any fiscal year, unless the consolidated total net leverage ratio, as defined in the Term Loan, does not exceed 1.75 to 1.00 at the time of the payment. At December 31, 2019, the Company was in compliance with the covenants in the Term Loan.

The Company incurred fees and expenses of $0.4 million, $0.6 million and $4.7 million in 2019, 2018 and 2017, respectively. These fees related to amending the Facility and entry into and amending the Term Loan. These fees were deferred and are being amortized as interest expense over the term of the applicable debt agreements. Fees related to the Term Loan are presented as a direct deduction of the corresponding debt.

The Company had other debt outstanding, excluding finance leases, of approximately $93.5 million at December 31, 2019. In addition to the excess availability under the Facility, the Company had remaining availability of $18.2 million related to other non-U.S. revolving credit agreements.

NOTE 15—Leasing Arrangements

On January 1, 2019, the Company adopted Accounting Standards Codification ("ASC") Topic 842, "Leases" ("new lease standard"). The new lease standard was adopted using the optional transition method approach that allows for the cumulative effect adjustment to be recorded without restating prior periods. The Company has elected the practical expedient package related to the identification, classification and accounting for initial direct costs whereby prior conclusions do not have to be reassessed for leases that commenced before the effective date. As the Company will not reassess such conclusions, the Company has not adopted the practical expedient to use hindsight to determine the likelihood of whether a lease will be extended or terminated or whether a purchase option will be exercised.

The Company's adoption of the new lease standard included new processes and controls regarding asset financing transactions, financial reporting and a system-related implementation required for the new lease standard. The Company's accounting for finance leases (formerly referred to as capital leases prior to the adoption of the new lease standard) remained substantially unchanged. The impact of the adoption of the new lease standard included the recognition of right-of-use ("ROU") assets and lease liabilities. The adoption of the new lease standard resulted in additional net lease assets and net lease liabilities of approximately $82.7 million and $80.8 million, respectively, as of January 1, 2019. The $80.8 million is net of $6.2 million of lease related liabilities which had been recorded under previous accounting standards and have been reclassified as a contraasset under the new standard. In addition, a cumulative adjustment was recorded to increase retained earnings by $1.4 million as of January 1, 2019, for certain sales-leaseback transactions for which profit recognition was deferred previously under accounting standards but is no longer deferred under the new lease standard. The new lease standard did not materially affect the Company's consolidated net earnings and had no impact on cash flows for the year ended December 31, 2019.

(Tabular Amounts in Millions, Except Per Share and Percentage Data)

As of January 1, 2019, the cumulative effect on the Company’s unaudited condensed consolidated balance sheet for the adoption of the new lease standard was as follows:

	Balance at December 31, 2018	Adjustments due to New Lease Standard	Balance at January 1, 2019
Other non-current assets	$ 36.4	$ 82.7	$ 119.1
Deferred income tax assets	26.3	(0.5)	25.8
Other current liabilities	154.1	16.3	170.4
Other long-term liabilities	130.2	64.5	194.7
Retained earnings	407.3	1.4	408.7

In accordance with the new lease standard, the Company determines if an arrangement contains a lease and the classification of that lease, if applicable, at inception. The Company has elected to not recognize a lease liability or ROU asset for short-term leases (leases with an initial term of twelve months or less). For contracts with lease and non-lease components, the Company has elected not to allocate the contract consideration, and to account for the lease and non-lease components as a single lease component. ROU assets represent the right to use an underlying asset for the lease term and lease liabilities represent the obligation to make lease payments under the lease. Operating lease ROU assets and liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term. The implicit rate within the operating leases are generally not determinable and the Company has obtained rates from third-party financiers for relevant geographies, currencies and lease terms to determine the incremental borrowing rate at the date of adoption of the new lease standard and at the inception of new leases. The operating lease ROU asset also includes any lease prepayments, offset by lease incentives. Certain of the Company's leases include options to extend or terminate the lease. An option to extend the lease is considered in connection with determining the ROU asset and lease liability when it is reasonably certain the Company will exercise that option. An option to terminate is also considered in connection with determining the ROU asset and lease liability unless it is reasonably certain the Company will not exercise the option. Lease expense for operating lease payments is recognized on a straight-line basis over the term of the lease.

As of December 31, 2019, the Company had the following amounts recorded on the Company's unaudited condensed consolidated balance sheet:

	Location on Balance Sheet	December 31, 2019
Assets		
Operating lease assets	Other non-current assets	**$ 76.3**
Finance lease assets	Property, plant and equipment, net	**26.3**
Total		**$ 102.6**
Liabilities		
Current		
Operating lease liabilities	Other current liabilities	**18.0**
Finance lease liabilities	Current maturities of long-term debt	**8.5**
Long-term		
Operating lease liabilities	Other long-term liabilities	**62.3**
Finance lease liabilities	Long-term debt	**12.5**
Total		**$ 101.3**

Finance lease assets are recorded net of accumulated amortization of $13.5 million as of December 31, 2019. In addition, leases with HYGFS included in the unaudited condensed consolidated balance sheet at December 31, 2019, include $17.7 million of ROU assets and $17.8 million of lease liabilities.

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HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
(Tabular Amounts in Millions, Except Per Share and Percentage Data)

As of December 31, 2019, the Company had the following remaining lease term and weighted average discount rates:

	Operating Leases	Finance Leases
Weighted-average remaining lease term in years	7.12	3.10
Weighted-average discount rate	5.11%	3.46%

For the December 31, 2019, the Company recorded the following amounts:

	Location on Income Statement		Year Ended December 31, 2019
Operating lease cost	Cost of sales	**$**	**8.6**
Operating lease cost	Selling, general and administrative expenses		**16.3**
Finance lease cost			
Amortization of leased assets	Cost of sales		**7.8**
Interest on lease liabilities	Interest expense		**0.6**
Sublease income	Revenues		**(11.5)**
Total		**$**	**21.8**

The Company recognizes sublease income primarily related to lift trucks in which the Company records revenues over the term of the lease in accordance with the rental agreements with its customers. Aggregate future minimum rentals to be received under noncancellable subleases of lift trucks as of December 31, 2019 were $30.1 million.

For the year ended December 31, 2019, the Company recorded the following amounts:

		Year Ended December 31, 2019
Cash paid for lease liabilities		
Operating cash flows from operating leases	**$**	**24.2**
Operating cash flows from finance leases		**0.6**
Financing cash flows from finance leases		**7.9**
Non-cash amounts related to right-of-use assets obtained in exchange for lease obligations		
Operating		**18.3**
Finance		**4.4**

Annual maturities of lease liabilities are as follows:

		Operating Leases		Finance Leases		Total
2020	$	21.2	$	9.0	$	30.2
2021		16.8		6.2		23.0
2022		13.7		3.2		16.9
2023		10.4		2.3		12.7
2024		7.6		1.0		8.6
Thereafter		27.2		0.1		27.3
		96.9		21.8		118.7
Less: Interest		(16.6)		(0.8)		(17.4)
Net	$	80.3	$	21.0	$	101.3

The Company leases certain office, manufacturing and warehouse facilities and machinery and equipment under noncancellable finance and operating leases that expire at various dates through 2037. Many leases include renewal and/or fair value purchase options.

(Tabular Amounts in Millions, Except Per Share and Percentage Data)

Assets recorded under finance leases are included in property, plant and equipment and consist of the following:

	December 31	
	2019	2018
Plant and equipment	**$ 39.8**	$ 38.7
Less accumulated amortization	**(13.5)**	(13.5)
	$ 26.3	$ 25.2

Amortization of plant and equipment under finance leases is included in depreciation expense. Finance lease obligations of $7.9 million, $4.7 million and $0.2 million were incurred in connection with lease agreements to acquire machinery and equipment during 2019, 2018 and 2017, respectively.

NOTE 16—Product Warranties

The Company provides a standard warranty on its lift trucks, generally for six to twelve months or 1,000 to 2,000 hours. For certain series of lift trucks, the Company provides a standard warranty of one to two years or 2,000 or 4,000 hours. For components in some series of lift trucks, the Company provides a standard warranty of two to three years or 4,000 to 6,000 hours. The Company estimates the costs which may be incurred under its standard warranty programs and records a liability for such costs at the time product revenue is recognized.

In addition, the Company sells separately priced extended warranty agreements that generally provide a warranty for an additional two to five years or up to 2,400 to 10,000 hours. The specific terms and conditions of those warranties vary depending upon the product sold and the country in which the Company does business. Revenue received for the sale of extended warranty contracts is deferred and recognized in the same manner as the costs incurred to perform under the warranty contracts.

The Company also maintains a quality enhancement program under which it provides for specifically identified field product improvements in its warranty obligation. Accruals under this program are determined based on estimates of the potential number of claims and the cost of those claims based on historical costs.

The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary. Factors that affect the warranty liability include the number of units sold, historical and anticipated rates of warranty claims and the cost per claim.

Changes in the Company's current and long-term warranty obligations, including deferred revenue on extended warranty contracts, are as follows:

	2019	2018
Balance at January 1	**$ 56.9**	$ 51.0
Current year warranty expense	**42.1**	34.8
Change in estimate related to pre-existing warranties	**2.5**	(0.8)
Payments made	**(36.1)**	(27.2)
Foreign currency effect	**(0.2)**	(0.9)
Balance at December 31	**$ 65.2**	$ 56.9

NOTE 17—Contingencies

Various legal and regulatory proceedings and claims have been or may be asserted against the Company relating to the conduct of its businesses, including product liability, environmental and other claims. These proceedings and claims are incidental to the ordinary course of business. Management believes that it has meritorious defenses and will vigorously defend the Company in these actions. Any costs that management estimates will be paid as a result of these claims are accrued when the liability is considered probable and the amount can be reasonably estimated. Although the ultimate disposition of these proceedings is not presently determinable, management believes, after consultation with its legal counsel, that the likelihood is remote that costs will be incurred materially in excess of accruals already recognized.

The Company previously filed legal actions in Brazil to recover certain social integration and social contribution taxes paid over gross sales, including ICMS receipts, which is a form of state value added tax. During the third quarter of 2019, the Company's Brazil legal advisors notified the Company that they received judicial notification in April 2019 that the Superior Judicial Court rendered a favorable decision on the case granting the Company the right to recover, through offset of federal tax liabilities, amounts of overpayments collected by the government from 1999 to date. The judicial court decision is final and not subject to appeals. Based on analysis performed to date, the current estimate of the refund calculated on a gross basis is approximately 100 million Brazilian reais, or approximately $25 million.

The amount and ultimate timing of realization of these recoveries is dependent upon administrative approvals, generation of federal tax liabilities in Brazil eligible for offset and potential impacts of future legislative actions within Brazil, all of which are uncertain. Based upon a probability weighted analysis, including a review of historical earnings and trends, forecasted earnings, the relevant expiration of carryforwards and the potential of selling the credits at a significant discount, the Company determined the net realizable value of the credits is approximately $8 million Brazilian reais, or $2 million. These credits are recorded on the line "Cost of sales" in the Consolidated Statements of Operations. The Company currently expects to realize this amount within the next one to five years. Future legislative changes in Brazil, changes in the Company's forecasted earnings or resolution of other uncertainties could impact the estimate of the amount realizable for these tax credits.

The Brazilian tax authorities have sought clarification before the Brazilian Supreme Court of certain matters, including the amount of these credits (i.e., the gross rate or net credit amount), and certain other matters that could affect the rights of Brazilian taxpayers regarding these credits, all of which would materially impact the realization of the credits. Based on the opinions of our tax and legal advisors, we have not accrued any amounts related to potential future litigation regarding these credits.

NOTE 18—Guarantees

Under various financing arrangements for certain customers, including independent retail dealerships, the Company provides recourse or repurchase obligations such that it would be obligated in the event of default by the customer. Terms of the third-party financing arrangements for which the Company is providing recourse or repurchase obligations generally range from one to five years. Total amounts subject to recourse or repurchase obligations at December 31, 2019 and 2018 were $179.7 million and $192.7 million, respectively. As of December 31, 2019, losses anticipated under the terms of the recourse or repurchase obligations were not significant and reserves have been provided for such losses based on historical experience in the accompanying consolidated financial statements. The Company generally retains a security interest in the related assets financed such that, in the event the Company would become obligated under the terms of the recourse or repurchase obligations, the Company would take title to the assets financed. The fair value of collateral held at December 31, 2019 was approximately $238.4 million based on Company estimates. The Company estimates the fair value of the collateral using information regarding the original sales price, the current age of the equipment and general market conditions that influence the value of both new and used lift trucks. The Company also regularly monitors the external credit ratings of the entities for which it has provided recourse or repurchase obligations. As of December 31, 2019, the Company did not believe there was a significant risk of non-payment or non-performance of the obligations by these entities; however, there can be no assurance that the risk may not increase in the future. In addition, the Company has an agreement with WF to limit its exposure to losses at certain eligible dealers. Under this agreement, losses related to $31.0 million of recourse or repurchase obligations for these certain eligible dealers are limited to 7.5% of their original loan balance, or $11.3 million as of December 31, 2019. The $31.0 million is included in the $179.7 million of total amounts subject to recourse or repurchase obligations at December 31, 2019.

Generally, the Company sells lift trucks through its independent dealer network or directly to customers. These dealers and customers may enter into a financing transaction with HYGFS or other unrelated third parties. HYGFS provides debt and lease financing to both dealers and customers. On occasion, the credit quality of a customer or credit concentration issues within WF may require the Company to provide recourse or repurchase obligations of the lift trucks purchased by customers and financed through HYGFS. At December 31, 2019, approximately $144.8 million of the Company's total recourse or repurchase obligations of $179.7 million related to transactions with HYGFS. In connection with the joint venture agreement, the Company also provides a guarantee to WF for 20% of HYGFS' debt with WF, such that the Company would become liable under the terms of HYGFS' debt agreements with WF in the case of default by HYGFS. At December 31, 2019, loans from WF to HYGFS totaled $1.2 billion. Although the Company's contractual guarantee was $239.3 million, the loans by WF to HYGFS are secured by HYGFS' customer receivables, of which the Company guarantees $144.8 million. Excluding the HYGFS receivables guaranteed by the Company from HYGFS' loans to WF, the Company's incremental obligation as a result of this guarantee to WF is $214.3 million, which is secured by 20% of HYGFS' customer receivables and other secured assets of $302.7 million. HYGFS has not defaulted under the terms of this debt financing in the past, and although there can be no assurances, the Company is not aware of any circumstances that would cause HYGFS to default in future periods.

(Tabular Amounts in Millions, Except Per Share and Percentage Data)

The following table includes the exposure amounts related to the Company's guarantees at December 31, 2019:

	HYGFS	Total
Total recourse or repurchase obligations	$ 144.8	$ 179.7
Less: exposure limited for certain dealers	31.0	31.0
Plus: 7.5% of original loan balance	11.3	11.3
	125.1	160.0
Incremental obligation related to guarantee to WF	214.3	214.3
Total exposure related to guarantees	$ 339.4	$ 374.3

NOTE 19—Debt and Equity Investments and Related Party Transactions

The Company maintains an interest in one variable interest entity, HYGFS. HYGFS is a joint venture with WF formed primarily for the purpose of providing financial services to independent Hyster® and Yale® lift truck dealers and National Account customers in the United States and is included in the Americas segment. The Company does not have a controlling financial interest or have the power to direct the activities that most significantly affect the economic performance of HYGFS. Therefore, the Company has concluded that the Company is not the primary beneficiary and uses the equity method to account for its 20% interest in HYGFS. The Company does not consider its variable interest in HYGFS to be significant.

Generally, the Company sells lift trucks through its independent dealer network or directly to customers. These dealers and customers may enter into a financing transaction with HYGFS or other unrelated third parties. HYGFS provides debt financing to dealers and lease financing to both dealers and customers. HYGFS' total purchases of Hyster® and Yale® lift trucks from dealers, and directly from the Company such that HYGFS could provide retail lease financing to customers for the years ended December 31, 2019, 2018 and 2017 were $514.1 million, $536.2 million and $475.9 million, respectively. Of these amounts, $126.4 million, $79.5 million and $71.1 million for the years ended December 31, 2019, 2018 and 2017, respectively, were invoiced directly from the Company to HYGFS so that the customer could obtain operating lease financing from HYGFS. Amounts receivable from HYGFS were $9.0 million and $11.2 million at December 31, 2019 and 2018, respectively. The Company provides recourse for certain financing provided by HYGFS to its dealers and customers. In addition, the Company also provides a guarantee to WF for their portion of HYGFS' debt. Refer to Note 18 for additional details relating to the guarantees provided to WF.

In addition to providing financing to dealers, HYGFS provides operating lease financing to the Company. Operating lease obligations primarily relate to specific sale-leaseback-sublease transactions for certain customers whereby the Company sells lift trucks to HYGFS, leases these lift trucks back under an operating lease agreement and then subleases those lift trucks to customers under an operating lease agreement. Total obligations to HYGFS under the operating lease agreements were $21.2 million and $15.5 million at December 31, 2019 and 2018, respectively. In addition, the Company provides certain subsidies to its dealers that are paid directly to HYGFS. Total subsidies were $6.0 million, $5.0 million and $3.3 million for 2019, 2018 and 2017, respectively.

The Company provides certain services to HYGFS for which it receives compensation under the terms of the joint venture agreement. The services consist primarily of administrative functions and remarketing services. Total income recorded by the Company related to these services was $7.0 million in 2019, $8.0 million in 2018 and $9.5 million in 2017.

The Company has a 50% ownership interest in SN, a limited liability company that was formed primarily to manufacture and distribute Sumitomo-branded lift trucks in Japan and export Hyster®- and Yale®- branded lift trucks and related components and service parts outside of Japan. The Company purchases products from SN under agreed-upon terms. The Company's ownership in SN is also accounted for using the equity method of accounting and is included in the JAPIC segment. The Company purchases products from SN under normal trade terms based on current market prices. In 2019, 2018 and 2017, purchases from SN were $45.5 million, $65.4 million and $46.8 million, respectively. Amounts payable to SN at December 31, 2019 and 2018 were $15.6 million and $21.3 million, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
(Tabular Amounts in Millions, Except Per Share and Percentage Data)

The Company recognized income of $0.3 million, $0.4 million and $0.4 million for payments from SN for use of technology developed by the Company which is included in “Revenues” in the Consolidated Statements of Operations for the years ended December 31, 2019, 2018 and 2017, respectively.

Summarized unaudited financial information for equity investments is as follows:

	2019	2018	2017
Statement of Operations			
Revenues	**$ 424.3**	$ 413.0	$ 350.3
Gross profit	**$ 127.4**	$ 126.9	$ 111.9
Income from continuing operations	**$ 37.4**	$ 36.7	$ 127.2
Net income	**$ 37.4**	$ 36.7	$ 127.2
Balance Sheet			
Current assets	**$ 123.7**	$ 130.9	
Non-current assets	**$ 1,665.2**	$ 1,609.7	
Current liabilities	**$ 133.6**	$ 123.5	
Non-current liabilities	**$ 1,454.3**	$ 1,431.2	

The results of HYGFS for 2017, which are included in the table above, include a provisional benefit of $99.2 million related to the Tax Reform Act, of which the Company recognized $19.8 million under the equity method of accounting for HYGFS.

The Company's equity investments in unconsolidated affiliates are included in “Investment in Unconsolidated Affiliates” in the Consolidated Balance Sheets as follows:

	December 31, 2019	December 31, 2018
HYGFS	**$ 22.8**	$ 20.6
SN	**43.9**	41.3
Bolzoni	**0.3**	0.5

Dividends received from unconsolidated affiliates for the year ended December 31, are summarized below:

	2019	2018	2017
HYGFS	**$ 4.1**	$ 20.1	$ 2.4
SN	**1.0**	2.1	0.4
	$ 5.1	$ 22.2	$ 2.8

The Company has an approximately 19% ownership interest through common and redeemable preferred shares in a third party, OneH2, Inc. ("OneH2"). The Company's investment was $10.6 million and $9.1 million as of December 31, 2019 and December 31, 2018, respectively. The Company recorded $1.3 million of accrued dividend income related to this investment in 2019.

The Company has an equity investment in a third party valued using a quoted market price in an active market, or Level 1 in the fair value hierarchy. The Company's investment as of December 31, 2019 and December 31, 2018 was $2.4 million and $4.1 million, respectively. Any gain or loss on the investment is included on the line "Other" in the "Other (income) expense" section of the Consolidated Statements of Operations for the years ended December 31, as follows:

	2019	2018
Loss on equity investment	**$ (1.6)**	$ (5.1)

NOTE 20—Restructuring

In 2019, as part of a plan to expand Bolzoni's capabilities in the United States, Bolzoni's North America attachment manufacturing was moved into HYG's Sulligent, Alabama manufacturing facility. As a result, effective January 1, 2019, the Sulligent facility became a Bolzoni facility.

As a result of this restructuring, Bolzoni recognized charges totaling approximately $2.5 million during the year ended December 31, 2019. During 2019, the Company incurred $0.4 million related to severance, which was recorded on the line "Selling, general and administrative expenses," and $2.1 million related to plant rearrangement and moving costs, which was recorded in "Cost of sales." Severance payments of $0.4 million were made during 2019. Cash payments related to this restructuring plan were completed in 2019.

NOTE 21—Other Items

Effective July 6, 2018, the U.S. Trade Representative imposed additional duties on goods imported from China as part of the action in the Section 301 investigation of China’s acts, policies and practices related to technology transfer, intellectual property and innovation. On April 18, 2019, the U.S. Trade Representative posted a notice announcing its determination to grant exclusion requests for additional duties on certain goods from China. The exclusions will apply retroactively to the July 6, 2018 effective date and will extend for one year after the notice of exclusions, or April 2020.

Certain components of fork lift trucks, including counterweights and forks, were listed in the notice as exclusions for the additional duties. The Company recognized $11.8 million of retroactive tariff recoveries in 2019, which is included in the line "Cost of sales" in the Consolidated Statements of Operations.

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS
HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
YEAR ENDED DECEMBER 31, 2019, 2018 AND 2017

Description	Balance at Beginning of Period	Additions: Charged to Costs and Expenses	Additions: Charged to Other Accounts — Describe (A)	Deductions — Describe	Balance at End of Period
			(In millions)		
2019					
Reserves deducted from asset accounts:					
Allowance for doubtful accounts (B)	**$ 9.7**	**$ 1.2**	**$ (1.2)**	**$ — (C)**	**$ 9.7**
2018					
Reserves deducted from asset accounts:					
Allowance for doubtful accounts (B)	$ 8.7	$ 1.9	$ (0.9)	$ — (C)	$ 9.7
2017					
Reserves deducted from asset accounts:					
Allowance for doubtful accounts (B)	$ 14.9	$ 0.2	$ 1.1	$ 7.5 (C)	$ 8.7

(A) Foreign currency translation adjustments and other.
(B) Includes allowance of receivables classified as long-term of $4.1 million, $4.3 million and $5.0 million in 2019, 2018 and 2017, respectively.
(C) Write-offs, net of recoveries.

DESCRIPTION OF SECURITIES REGISTERED UNDER SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

The following is a summary of the terms and provisions of the Class A common stock, par value $0.01 per share ("Class A Common"), and Class B common stock, par value $0.01 per share ("Class B Common"), of Hyster-Yale Materials Handling, Inc., a Delaware corporation ("Hyster-Yale", the "Company", "we", "us" or "our"), and is qualified by reference to the Company's second amended and restated certificate of incorporation and amended and restated bylaws, which are incorporated by reference herein and attached as exhibits to the Company's most recent Annual Report on Form 10-K filed with the Securities and Exchange Commission, and to applicable provisions of Delaware law.

Our authorized capital stock consists of 160 million shares of common stock (comprised of 125 million shares of our Class A Common and 35 million shares of our Class B Common), par value $0.01 per share, and five million shares of preferred stock, par value $0.01 per share.

Common Stock

Voting Rights. Subject to the rights of the holders of any series of preferred stock, each share of our Class A Common entitles the holder of the share to one vote on all matters submitted to our stockholders, and each share of our Class B Common entitles the holder of the share to ten votes on all such matters.

Dividends and Other Distributions. Subject to the rights of the holders of any series of preferred stock, each share of our Class A Common and our Class B Common are equal in respect of rights to dividends and other distributions in our cash, stock or property, except that in the case of dividends or other distributions payable in our stock, including distributions pursuant to split-ups or divisions of our stock, only our Class A Common may be distributed with respect to our Class A Common and only our Class B Common may be distributed with respect to our Class B Common. In the event of a future spin-off of one of our subsidiaries, the Hyster-Yale second amended and restated certificate of incorporation permits the Company to elect to distribute to each holder of our Class A Common shares of the Class A common stock of such subsidiary and to each holder of our Class B Common shares of the Class B common stock of such subsidiary. In the case of any consolidation, merger or sale of all or substantially all of our assets as a result of which our stockholders will be entitled to receive cash, stock other securities or other property with respect to or in exchange for their shares of our stock, each holder of our Class A Common and our Class B Common will be entitled to receive an equal amount of consideration for each share of our Class A Common or our Class B Common held by such holder.

Restrictions on Transfer of Class B Common; Convertibility of Class B Common into Class A Common. As more fully described below, our Class B Common generally is not transferable by a stockholder except to or among such holder's spouse, certain relatives of such holder, and spouses of such relatives, certain trusts established for their benefit, certain corporations, limited liability companies and partnerships owned by them and certain charitable organizations.

Our Class B Common is, however, convertible at all times, and without cost to the stockholder, into our Class A Common on a share-for-share basis.

Shares of our Class B Common received in a stockholder's own name will not be transferable into a "nominee" or "street" name.

Other than pursuant to conversions into our Class A Common, a holder of shares of our Class B Common may transfer such shares (whether by sale, assignment, gift, bequest, appointment or otherwise) *only* to a permitted transferee, which is defined generally as follows:

- any of the lineal descendants of a great grandparent of such holder of our Class B Common, including children adopted before age 18 or any spouse (including a widow or widower) of such lineal descendant (such persons, including such holder of our Class B Common, are hereinafter referred to as such Class B stockholder's family members);

- a trust for the benefit of such Class B stockholder's family members and certain charitable organizations;

- certain charitable organizations established by such Class B stockholder's family members; and

- a corporation whose stockholders, a partnership whose partners or a limited liability company whose members, are made up exclusively of such Class B stockholder's family members or any trust described in (2) above, but if any share of capital stock of such corporation or its successor, if any partnership interest in such partnership (or any survivor of a merger or consolidation of such a partnership), or any membership interest in such limited liability company (or any survivor of a merger or consolidation of such a limited liability company) is acquired by any person who is not within such class of persons, all shares of our Class B Common then held by such corporation or partnership, as the case may be, will be converted automatically into shares of our Class A Common.

In the case of a corporation or limited liability company, shares of our Class B Common also may be transferred to a successor by merger or consolidation, provided that each stockholder of each other corporation or member of each other limited liability company, as applicable, which is a party to such merger or consolidation is, at the time of such transaction, a stockholder of such corporation or a permitted transferee of at least one stockholder of such corporation or a member of such limited liability company or a permitted transferee of at least one member of such limited liability company. Shares held by trusts that are irrevocable on the record date for the spin-off of the Company from NACCO Industries, Inc. may be transferred to any person to whom or for whose benefit principal may be distributed under the terms of the trust. Shares held by all other trusts may be transferred to the person who established such trust and such person's permitted transferees. Shares held by certain charitable organizations may be transferred to the person who transferred such shares to the charitable organization and to such person's permitted transferees.

The restrictions on the transferability of the our Class B Common are set forth in full in Section 3 of Article IV of our second amended and restated certificate of incorporation. Stockholders are urged to read our second amended and restated certificate of incorporation carefully. Each certificate representing shares of our Class B Common bears a legend indicating that the shares of our Class B Common are subject to restrictions on the transfer and registration of transfer thereof.

Any purported transfer of shares of our Class B Common not permitted under our second amended and restated certificate of incorporation will be void and of no effect and the purported transferee will have no rights as our stockholder and no other rights against or with respect to us. We may, as a condition to the transfer or registration of transfer of shares of our Class B Common to a permitted transferee, require the furnishing of such affidavits or other proof as we deem necessary to establish that such transferee is a permitted transferee.

We may not issue any additional shares of our Class B Common without an affirmative vote of the holders of a majority of our outstanding voting stock, except in connection with stock splits and stock dividends. All shares of our Class B Common received by us upon stockholders' conversion thereof into our Class A Common or otherwise acquired by us will be retired and not reissued.

Other Provisions. Neither our Class A Common nor our Class B Common carry any preemptive rights enabling a holder to subscribe for or receive shares of our stock of any class or any other securities convertible into shares of our stock.

Listing. Our Class A Common is traded on the New York Stock Exchange under the ticker symbol "HY."

Transfer Agent and Registrar. Computershare is the transfer agent and registrar for our common stock.

Preferred Stock

Our Board is authorized to issue one or more series of up to five million shares of preferred stock. With respect to each series of the preferred stock, our Board has the authority, consistent with our amended and restated certificate of incorporation, to determine the following terms:

- the number of shares within the series;
- the designation of the series;
- whether the shares have voting powers;
- whether the shares are redeemable, the redemption price and the terms of redemption;
- whether the shares are entitled to receive dividends, and if so, the dividend rate of the series, the dates of payment of dividends and the dates from which dividends are cumulative, if applicable;
- any rights if we dissolve or liquidate;
- whether the shares are convertible into, or exchangeable for, any of our other stock, the price or rate of conversion or exchange and the applicable terms and conditions;
- the terms and amount of any sinking fund provided for the purchase or redemption of shares of the series; and
- any other relative, participating, optional or other special powers, preferences or rights and qualifications, limitations or restrictions. The issuance of preferred stock may adversely affect the voting rights and other rights of the holders of common stock.

Provisions That May Have an Anti-Takeover Effect

Our second amended and restated certificate of incorporation contains provisions that may make the acquisition of control of us by means of a tender offer, open market purchase, proxy fight or otherwise more difficult. Our amended and restated bylaws also contain provisions that could have an anti-takeover effect.

These provisions of our second amended and restated certificate of incorporation and our amended and restated bylaws are designed to encourage persons seeking to acquire control of us to negotiate the terms with our Board. Stockholders are not generally permitted to call a special meeting of stockholders. However, preferred stock may be designated that permits the holders of such preferred stock to call a special meeting of the holders of such class of preferred stock. Subject to the rights of holders of our preferred stock, our directors must be nominated in accordance with Section 3 of Article II of our amended and restated bylaws, which provides that nominations for election as directors at an annual meeting of our stockholders may only be made (i) by or at the direction of our Board or a committee thereof or (ii) by any stockholder who is entitled to vote at such annual meeting and who complies with the additional requirements of such section.

The provisions could, however, have the effect of discouraging a prospective acquirer from making a tender offer or otherwise attempting to obtain control of us. To the extent that these provisions discourage takeover attempts, they could deprive stockholders of opportunities to realize takeover premiums for their shares. Moreover, these provisions could discourage accumulations of large blocks of shares of our Class A Common, thus depriving stockholders of any advantages that large accumulations of stock might provide. Set forth below is a summary of the relevant provisions of our second amended and restated certificate of incorporation and our amended and restated bylaws and certain applicable sections of the Delaware General Corporation Law. This summary may not contain all of the information that is important to you and is subject to, and is qualified by reference to, all of the provisions of our second amended and restated certificate of incorporation and our amended and restated bylaws.

No Cumulative Voting

Article V of our second amended and restated certificate of incorporation provides for no cumulative voting in the election of directors. In addition, subject to the rights of the holders of any series of preferred stock, Article V provides that our directors may be removed with or without cause. Any action for the removal of a director with or without cause must be approved by an affirmative vote of at least 80% of the voting power of our outstanding voting stock, voting together as a single class.

Restrictions on Certain Transactions with Interested Persons

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits certain business combinations and transactions between a corporation and an “interested stockholder” for at least three years after the interested stockholder becomes an interested stockholder, unless:

- before the interested stockholder’s share acquisition date, the board approved either the business combination or the purchase of shares by the interested stockholder;

- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (1) by persons who are directors and also officers and (2) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- the transaction is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock, after excluding shares controlled by the interested stockholder.

An "interested stockholder" is any person that (1) is the owner of 15% or more of our outstanding voting stock, or (2) is our affiliate or associate and was the owner of 15% or more of our outstanding voting stock at any time within the 3-year period immediately before the date on which it is sought to be determined whether such person is an interested stockholder, and the affiliates and associates of such person. Examples of transactions regulated by Section 203 include the disposition of assets, mergers and consolidations, voluntary dissolutions and the transfer of shares.

Special Vote Required for Certain Amendments to Organizational Documents

Certain provisions of our second amended and restated certificate of incorporation, such as those set forth in Article V (election and removal of directors), Article VI (amendment of bylaws) and Article VII (rights to indemnification), may not be amended or repealed except by the affirmative vote of the holders of at least 80% of the voting power of our outstanding voting stock, voting together as a single class. Such 80% vote is also required to adopt any provisions inconsistent with any of the provisions of Article I, Sections 1 (time and place of meetings of stockholders), 3 (special meetings of stockholders) and 8 (order of business at meetings of stockholders), Article II, Sections 1 (number and term of office of directors), 2 (vacancies and new directorships), 3 (nominations and election of directors) and 4 (powers of directors) and Article VII (amendments to bylaws) of our amended and restated bylaws.

Other Provisions

Certain other provisions of our amended and restated certificate of incorporation and our amended and restated bylaws may also tend to discourage attempts to acquire control of us. These include advance notice requirements for director nominations and stockholder proposals and provisions that prohibit stockholder action being effected by written consent.

HYSTER-YALE MATERIALS HANDLING, INC.

NON-EMPLOYEE DIRECTORS' EQUITY COMPENSATION PLAN

(AMENDED AND RESTATED EFFECTIVE MAY 17, 2019)

1. Purpose of the Plan

The purpose of this Non-Employee Directors' Equity Compensation Plan (the "Plan") is to provide for the payment to the non-employee Directors of Hyster-Yale Materials Handling, Inc. (the "Company") of a portion of their Directors' fees in capital stock of the Company in order to further align the interests of the Directors with the stockholders of the Company and thereby promote the long-term interests of the Company.

2. Effective Date

This Plan was originally effective as of September 28, 2012. This amended and restated Plan is effective May 17, 2019 (the "Effective Date"), subject to the approval of the Plan by the stockholders of the Company as of such Effective Date.

3. Definitions

(a) "Average Share Price" means the average of the closing price per share of Class A Common Stock on the New York Stock Exchange on the Friday (or if Friday is not a trading day, the last trading day before such Friday) for each week of the calendar quarter ending on the Quarter Date.

(b) "Board" means the Board of Directors of the Company.

(c) "Class A Common Stock" means (i) the Company's Class A Common Stock, par value $1.00 per share and (ii) any security into which Class A Common Stock may be converted by reason of any transaction or event of the type referred to in Section 5(c) of the Plan.

(d) "Director" means an individual duly elected or chosen as a director of the Company who is not also an employee of the Company or its subsidiaries.

(e) "Extraordinary Event" shall have the meaning set forth in Section 5.

(f) "ERISA" means the Employee Retirement Income Security Act of 1974, as amended, or any successor statute.

(g) "Payment Deadline" means the date that is the fifteenth day of the third month after each Quarter Date.

(h) "Quarter Date" means the last day of the calendar quarter for which a Required Amount or Voluntary Amount is earned.

(i) "Required Amount" means an amount of money constituting that portion (as determined from time to time by the Board) of a Director's retainer earned by such Director for his services as a Director for any calendar quarter that is payable in Shares as described in Section 4.1(a).

(j) "Rule 16b-3" means Rule 16b-3 promulgated under the Securities Exchange Act of 1934 (or any successor rule to the same effect), as in effect from time to time.

(k) "Shares" means shares of Class A Common Stock that are issued or transferred to a Director pursuant to, and with such restrictions as are imposed by, the terms of this Plan in respect of the Director's Required Amount.

(l) "Transfer" shall have the meaning set forth in Section 4.2(a).

(m) "Voluntary Amount" shall have the meaning set forth in Section 4.2(b).

(n) "Voluntary Shares" means shares of Class A Common Stock that are issued or transferred to a Director in accordance with Section 4.1(c) in respect of the Director's Voluntary Amount.

4. Shares and Voluntary Shares

4.1 Required Amount and Voluntary Amount

(a) Required Amount. From time to time, the Board shall determine (i) the amount of the retainer to be paid to each Director for each calendar quarter of a year, (ii) subject to Section 4.1(b), the portion of the retainer that shall be paid in cash and (iii) the equity portion of the retainer (expressed in dollars) that is required to be paid in Shares as described in Section 4.1(c) (the "Required Amount"), in each case subject to pro-ration in the event that the Director begins or ceases non-employee Director service during the applicable calendar quarter.

(b) Voluntary Shares. For any calendar quarter, a Director may elect to have up to 100% of the cash component of the retainer payable for such quarter in excess of the Required Amount, and any other cash to be earned by the Director for such quarter for services as a director of the Company (collectively referred to as a "Voluntary Amount"), not paid to the Director in cash, but instead to have the Voluntary Amount applied to the issuance or transfer to the Director of Voluntary Shares as described in Section 4.1(c); provided that the Director must notify the Company in writing of such election prior to the first day of the calendar quarter for which such election is made, which election will be irrevocable after such date for such calendar quarter and shall remain in effect for future calendar quarters unless or until revoked by the Director prior to the first day of a calendar quarter.

(c) Issuance of Shares and Voluntary Shares. Promptly following each Quarter Date (and, in any event, no later than the Payment Deadline), the Company shall issue or transfer to each Director (or to a trust for the benefit of the Director, or such Director's spouse, children or grandchildren, if so directed by the Director) (i) a number of whole Shares equal to the Required Amount for the calendar quarter ending on such Quarter Date divided by the Average Share Price and (ii) a number of whole Voluntary Shares equal to such Director's Voluntary Amount for such calendar quarter divided by the Average Share Price. To the extent that the application of the foregoing formulas would result in fractional Shares or fractional Voluntary Shares, no fractional shares of Class A Common Stock shall be issued or transferred by the Company pursuant to this Plan, but instead, such amount shall be paid to the Director in cash at the same time the Shares and Voluntary Shares are issued or transferred to the Director. Shares and Voluntary Shares shall be fully paid, nonassessable shares of Class A Common Stock. Shares shall be subject to the restrictions set forth in this Plan, whereas Voluntary Shares shall not be so restricted. Shares and Voluntary Shares may be shares of original issuance or treasury shares or a combination of the foregoing and, in the discretion of the Company, may be issued as certificated or uncertificated shares. The Company shall pay any and all fees and commissions incurred in connection with the purchase by the Company of shares of Class A Common Stock which are to be Shares or Voluntary Shares and the transfer to Directors of Shares or Voluntary Shares.

(d) Withholding Taxes. To the extent that the Company is required to withhold federal, state, local or other taxes in connection with any amount payable to a Director under this Plan, and the amounts available to the Company for such withholding are insufficient, it shall be a condition to the receipt of any Shares or Voluntary Shares that the Director make arrangements satisfactory to the Company for the payment of the balance of such taxes required to be withheld, which arrangements may include relinquishment of the Shares or the Voluntary Shares. To the extent permitted under applicable law, the Company and Director may also make similar arrangements with respect to the payment of any other taxes derived from or related to the payment of Shares or Voluntary Shares with respect to which withholding is not required.

4.2 Restrictions on Shares.

(a) Restrictions on Transfer of Shares. No Shares shall be assigned, pledged, hypothecated or otherwise transferred (any such assignment, pledge, hypothecation or transfer being referred to herein as a "Transfer") by a Director or any other person, voluntarily or involuntarily, other than (i) by will or by the laws of descent and distribution, (ii) pursuant to a domestic relations order that would meet the definition of a qualified domestic relations order under Section 206(d)(3)(B) of ERISA if such provisions applied to the Plan or a similar binding judicial order (a "QDRO"), or (iii) directly or indirectly to a trust or partnership for the benefit of a Director, or such Director's spouse, children or grandchildren. Shares transferred to a person other than the Director pursuant to a QDRO shall not be subject to the restrictions described in this Section 4.2(a), but Shares transferred to a trust or partnership for the benefit of a Director, or such Director's spouse, children or grandchildren, shall remain subject to the restrictions described in this Section 4.2(a) until such restrictions lapse pursuant to the following sentence. The restrictions on Shares set forth in this Section shall lapse for all purposes and shall be of no further force or effect upon the earliest to occur of (A) ten years after the Quarter Date with respect to which such Shares were issued or transferred, (B) the date of the death or permanent disability of the Director, (C) five years (or earlier with the approval of the Board) after the Director's retirement from the Board, (D) the date that a Director is both retired from the Board and has reached 70 years of age or (E) at such other time as determined by the Board in its sole and absolute discretion. Following the lapse of restrictions, at the Director's request, the Company shall take all such action as may be necessary to remove such restrictions from the stock certificates, or other applicable records with respect to uncertificated shares, representing the Shares, such that the resulting shares shall be fully paid, nonassessable and unrestricted by the terms of this Plan.

(b) Dividends, Voting Rights, Exchanges, Etc. Except for the restrictions set forth in this Section 4.2 and any restrictions required by law, a Director shall have all rights of a stockholder with respect to his Shares including the right to vote and to receive dividends as and when declared by the Board and paid by the Company. Except for any restrictions required by law, a Director shall have all rights of a stockholder with respect to his Voluntary Shares.

(c) Restriction on Transfer of Rights to Shares. No rights to Shares or Voluntary Shares shall be assigned, pledged, hypothecated or otherwise transferred by a Director or any other person, voluntarily or involuntarily, other than (i) by will or by the laws of descent and distribution, or (ii) pursuant to a QDRO.

(d) Legend. The Company shall cause an appropriate legend to be placed on each certificate, or other applicable record(s) with respect to uncertificated shares, for the Shares, reflecting the foregoing restrictions.

5. Amendment, Termination and Adjustments

(a) The Board may alter or amend the Plan from time to time or may terminate it in its entirety; provided, however, that no such action shall, without the consent of a Director, affect the rights in any Shares or Voluntary Shares that were previously issued or transferred to the Director or that were earned by, but not yet issued or transferred to, such Director. Unless otherwise specified by the Board, all Shares that were issued or transferred prior to the termination of this Plan shall continue to be subject to the terms of this Plan following such termination; provided that the transfer restrictions on such Shares shall lapse in accordance with Section 4.2(a). In any event, no Shares or Voluntary Shares may be issued or transferred under this Plan or after the tenth anniversary of the Effective Date.

(b) Notwithstanding the provisions of Subsection 5(a), without further approval by the stockholders of the Company, no such amendment or termination shall (i) materially increase the total number of shares of Class A Common Stock that may be issued or transferred under this Plan specified in Section 6 (except that adjustments and additions expressly authorized by this Section shall not be limited by this clause (i)) or (ii) make any other change for which stockholder approval would be required under applicable law or stock exchange requirements.

(c) The Board shall make or provide for such adjustments in the Average Share Price, in the kind of shares that may be issued or transferred hereunder, in the number of shares of Class A Common Stock specified in Section 6(a) or 6(b), in the number of outstanding Shares or Voluntary Shares for each Director, and in the terms applicable to the Shares or Voluntary Shares under this Plan, as the Board, in its sole discretion, exercised in good faith, may determine is equitably required to reflect (i) any stock dividend, stock split, combination of shares, recapitalization or any other change in the capital structure of the Company, (ii) any merger, consolidation, spin-off, split-off, spin-out, split-up, reorganization, partial or complete liquidation or other distribution of assets or issuance of rights or warrants to purchase securities, or (iii) any other corporate transaction or event having an effect similar to any of the foregoing (collectively referred to as an "Extraordinary Event"). Moreover, in the event of any such Extraordinary Event, the Committee may provide in substitution for any or all outstanding Shares or Voluntary Shares under this Plan such alternative consideration (including cash), if any, as it, in good faith, may determine to be equitable under the circumstances and shall require in connection therewith the surrender of all Shares or Voluntary Shares so replaced. All securities received by a Director with respect to Shares or Voluntary Shares in connection with any Extraordinary Event shall be deemed to be Shares or Voluntary Shares, as applicable, for purposes of this Plan and such Shares shall be restricted pursuant to the terms of this Plan to the same extent and for the same period as if such securities were the original Shares with respect to which they were issued or transferred, unless the Board, in its sole and absolute discretion, eliminates such restrictions or accelerates the time at which such restrictions on transfer shall lapse.

6. Class A Common Stock Subject to Plan

(a) Subject to adjustment as provided in this Plan, the total number of shares of Class A Common Stock that may be issued or transferred under this Plan on or after the Effective Date will not exceed in the aggregate 100,000. Notwithstanding anything to the contrary contained in the Plan, shares of Class A Common Stock withheld by the Company, tendered or otherwise used to satisfy any tax withholding obligation will count against the aggregate number of shares of Class A Common Stock available under this Section 6(a).

(b) Notwithstanding anything in this Section 6, or elsewhere in this Plan to the contrary, and subject to adjustment as provided in this Plan, the maximum amount paid to a Director in any calendar year beginning on or after January 1, 2019 shall not exceed the greater of (i) $1,250,000 or (ii) the fair market value of 20,000 shares of Class A Common Stock.

7. General Provisions

(a) No Continuing Right as Director. Neither the adoption nor operation of this Plan, nor any document describing or referring to this Plan, or any part thereof, shall confer upon any Director any right to continue as a Director or as a director of any subsidiary of the Company.

(b) Governing Law. The provisions of this Plan shall be governed by and construed in accordance with the laws of the State of Delaware.

(c) Cash If Shares Not Issued. All Required Amounts and Voluntary Amounts are the property of the Directors and shall be paid to them in cash in the event that Shares and Voluntary Shares may not be issued or transferred to Directors hereunder in respect of Required Amounts or Voluntary Amounts.

(d) Miscellaneous. Headings are given to the sections of this Plan solely as a convenience to facilitate reference. Such headings, numbering and paragraphing shall not in any case be deemed in any way material or relevant to the construction of this Plan or any provisions thereof. The use of the masculine gender shall also include within its meaning the feminine. The use of the singular shall also include within its meaning the plural, and vice versa

(e) Section 409A of the Internal Revenue Code. This Plan is intended to be exempt from the requirements of Section 409A of the Internal Revenue Code of 1986, as amended, and applicable Treasury Regulations issued thereunder, and shall be administered in a manner that is consistent with such intent.

Exhibit 10.18

HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES
Director Fee Policy (Amended Effective as of January 1, 2020)

This Director fee policy shall apply to each Director of Hyster-Yale Materials Handling, Inc. (Hyster-Yale) or one of its subsidiaries, other than (i) Directors who are full-time employees of Hyster-Yale or one of its subsidiaries or (ii) Directors who have entered into separate written fee agreements authorized by the Board of Directors and executed by an authorized officer of Hyster-Yale or one of its subsidiaries.

Each Director of Hyster-Yale will receive an annual retainer, of $184,000, payable quarterly in arrears. Each quarterly payment shall consist of $15,000 in cash and $31,000 worth of Hyster-Yale Class A Common Stock, transfer of which is restricted pursuant to the terms of the Hyster-Yale Non-Employee Directors' Equity Compensation Plan.

Each Director of Hyster-Yale Group, Inc. who is not a Director of Hyster-Yale will receive an annual retainer of $20,000, payable in cash quarterly in arrears in installments of $5,000.

Each Chairman of a Committee of the Hyster-Yale Board of Directors will receive an additional annual Committee Chairman's fee of $10,000, payable in cash quarterly in arrears in installments of $2,500; provided, however, that the Chairman of the Audit Review Committee will receive an annual Committee Chairman's fee of $15,000, payable in cash quarterly in arrears in installments of $3,750. 100% of all fees paid for service as Chairman of a Committee is attributable to services for Hyster-Yale Group, Inc. and its subsidiaries.

Each member of a Committee (other than the Executive Committee) of the Hyster-Yale Board of Directors, including Committee Chairmen, will receive an additional annual Committee member's fee of $7,000 for each Committee on which such Director serves, payable in cash quarterly in arrears in installments of $1,750. 100% of all fees paid for service as a member of a Committee is attributable to services for Hyster-Yale Group, Inc. and its subsidiaries.

Each Director of Hyster-Yale or a Hyster-Yale subsidiary will be paid a meeting fee of (a) $1,000 for each Hyster-Yale or subsidiary Board meeting attended, provided that no Director shall be paid for attendance at more than one Board meeting on any single day, and (b) $1,000 for each Committee meeting attended. In the case of either joint meeting or joint committee meetings, the fees associated with that meeting will be allocated among the companies that actually met.

This amended policy is effective as of January 1, 2020

Exhibit 21.1

SUBSIDIARIES OF HYSTER-YALE MATERIALS HANDLING, INC.

The following is a list of active subsidiaries as of the date of the filing with the Securities and Exchange Commission of the Annual Report on Form 10-K to which this is an Exhibit. Except as noted, all of these subsidiaries are wholly owned, directly or indirectly.

Name	Incorporation
Auramo OY	Finland
Auramo ZA	South Africa (40%)
Bolzoni Auramo AB	Sweden
Bolzoni Auramo B.V.	Holland (51%)
Bolzoni Auramo Canada Ltd.	Canada
Bolzoni Auramo Inc.	South Carolina
Bolzoni Auramo Polska SP Zoo	Poland (60%)
Bolzoni Auramo Pty Ltd.	Australia
Bolzoni Auramo (Shanghai) Forklift Truck Attachment Co. Ltd.	China (60%)
Bolzoni Auramo SL Sociedad Unipersonal	Spain
Bolzoni Auramo (Wuxi) Forklift Truck Attachment Co. Ltd.	China (80%)
Bolzoni Capital Holding B.V.	Netherlands
Bolzoni Capital UK, Limited	United Kingdom
Bolzoni Italia Srl	Italy
Bolzoni (Hebei) Forks	China (80%)
Bolzoni Holdings LLC	Delaware
Bolzoni Holding Hong Kong	Hong Kong (PRC)(80%)
Bolzoni Holding SpA	Italy
Bolzoni Ltd.	United Kingdom
Bolzoni Portugal Lda.	Portugal (31%)
Bolzoni Sarl	France
Bolzoni South America Ltda.	Brazil
Bolzoni SpA	Italy
G2A	France (75%)
Hiroshima Yale Co., Ltd.	Japan (10%)
HYG Financial Services, Inc.	Delaware (20%)
HYG Telematics Solutions Limited	United Kingdom
Hyster (H.K.) Limited	Hong Kong (PRC)
Hyster Overseas Capital Corporation, LLC	Delaware
Hyster-Yale Acquisition Holding Limited	United Kingdom
Hyster-Yale Australia Holding Pty Ltd.	Australia
Hyster-Yale Asia-Pacific Pty, Ltd.	Australia
Hyster-Yale Brasil Empilhadeiras Ltda.	Brazil
Hyster-Yale Canada ULC	Canada
Hyster-Yale Deutschland GmbH	Germany
Hyster-Yale France S.A.R.L.	France
Hyster-Yale Group, Inc.	Delaware
Hyster-Yale Group Limited	United Kingdom
Hyster-Yale Holding B.V.	Netherlands
Hyster-Yale International B.V.	Netherlands
Hyster-Yale Italia SpA	Italy
Hyster-Yale Lift Trucks India Private Limited	India
Hyster-Yale Lift Trucks Singapore Pte. Ltd.	Singapore
Hyster-Yale Maximal Forklift (Zhejiang) Co., Ltd.	China (75%)
Hyster-Yale Mauritius	Mauritius
Hyster-Yale Mexico S.A. de C.V.	Mexico
Hyster-Yale Nederland B.V.	Netherlands
Hyster-Yale UK Limited	United Kingdom
Hyster-Yale UK Pension Co. Limited	United Kingdom

Name	Incorporation
LLC Hans H. Meyer OOO	Russia (80%)
Maximal Forklift (Zhejiang) Co., Ltd.	China (75%)
Meyer GmbH	Germany
Nuvera Fuel Cells, LLC.	Delaware
Nuvera Fuel Cells (Zhejiang) Company Limited	China
Onoda Industry Co. Ltd.	Japan (20%)
Shanghai Hyster Forklift, Ltd.	China
Shanghai Hyster International Trading Co. Ltd.	China
SNP Estate Corporation	Philippines (50%)
Suminac Philippines, Inc.	Philippines (50%)
Sumitomo NACCO Forklift Co., Ltd.	Japan (50%)
Sumitomo NACCO Forklift Sales Co., Ltd.	Japan (50%)
Sumitomo NACCO Forklift Vietnam Co., Ltd.	Vietnam (50%)
Tohoku Shinko Co., Ltd.	Japan (47%)
Tokai Shinko Co., Ltd.	Japan (15%)
Weil Corporation	Philippines (47%)
Yale Materials Handling UK Ltd.	United Kingdom
Yale SLT Fordertechnik GmBH	Germany

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement on Form S-8 No. 333-231851 pertaining to the Hyster-Yale Materials Handling, Inc. Non-Employee Directors' Equity Compensation Plan (As Amended and Restated Effective May 17, 2019) of Hyster-Yale Materials Handling, Inc. for the registration of 100,000 shares of Class A common stock;
(2) Registration Statement on Form S-8 No. 333-184710 pertaining to the Hyster-Yale Materials Handling, Inc. Supplemental Long-Term Equity Incentive Plan of Hyster-Yale Materials Handling, Inc. for the registration of 100,000 shares of Class A common stock;
(3) Registration Statement on Form S-8 No. 333-184709 pertaining to the Hyster-Yale Materials Handling, Inc. Non-Employee Directors' Equity Compensation Plan of Hyster-Yale Materials Handling, Inc. for the registration of 100,000 shares of Class A common stock;
(4) Registration Statement on Form S-8 333-184708 pertaining to the Hyster-Yale Materials Handling, Inc. Long-Term Equity Incentive Plan of Hyster-Yale Materials Handling, Inc. for the registration of 750,000 shares of Class A common stock;

of our reports dated February 25, 2020, with respect to the consolidated financial statements and schedule of Hyster-Yale Materials Handling, Inc. and Subsidiaries and the effectiveness of internal control over financial reporting of Hyster-Yale Materials Handling, Inc. and Subsidiaries included in this Annual Report (Form 10-K) of Hyster-Yale Materials Handling, Inc. and Subsidiaries for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Cleveland, Ohio
February 25, 2020

Exhibit 24.1

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Director of Hyster-Yale Materials Handling, Inc. hereby constitutes and appoints Kenneth C. Schilling and Suzanne S. Taylor, and each of them, as the true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for the undersigned and in the name, place and stead of the undersigned, to sign on behalf of the undersigned as Director of Hyster-Yale Materials Handling, Inc., a Delaware corporation, an Annual Report pursuant to Section 13 of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 2019, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ James B. Bemowski	February 19, 2020
James B. Bemowski	Date

Exhibit 24.2

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Director of Hyster-Yale Materials Handling, Inc. hereby constitutes and appoints Kenneth C. Schilling and Suzanne S. Taylor, and each of them, as the true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for the undersigned and in the name, place and stead of the undersigned, to sign on behalf of the undersigned as Director of Hyster-Yale Materials Handling, Inc., a Delaware corporation, an Annual Report pursuant to Section 13 of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 2019, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ J.C. Butler, Jr.	February 19, 2020
John C. Butler, Jr.	Date

Exhibit 24.3

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Director of Hyster-Yale Materials Handling, Inc. hereby constitutes and appoints Kenneth C. Schilling and Suzanne S. Taylor, and each of them, as the true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for the undersigned and in the name, place and stead of the undersigned, to sign on behalf of the undersigned as Director of Hyster-Yale Materials Handling, Inc., a Delaware corporation, an Annual Report pursuant to Section 13 of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 2019, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ Carolyn Corvi	February 19, 2020
Carolyn Corvi	Date

Exhibit 24.4

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Director of Hyster-Yale Materials Handling, Inc. hereby constitutes and appoints Kenneth C. Schilling and Suzanne S. Taylor, and each of them, as the true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for the undersigned and in the name, place and stead of the undersigned, to sign on behalf of the undersigned as Director of Hyster-Yale Materials Handling, Inc., a Delaware corporation, an Annual Report pursuant to Section 13 of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 2019, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ John P. Jumper	February 19, 2020
John P. Jumper	Date

Exhibit 24.5

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Director of Hyster-Yale Materials Handling, Inc. hereby constitutes and appoints Kenneth C. Schilling and Suzanne S. Taylor, and each of them, as the true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for the undersigned and in the name, place and stead of the undersigned, to sign on behalf of the undersigned as Director of Hyster-Yale Materials Handling, Inc., a Delaware corporation, an Annual Report pursuant to Section 13 of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 2019, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ Dennis W. LaBarre	February 19, 2020
Dennis W. LaBarre	Date

Exhibit 24.6

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Director of Hyster-Yale Materials Handling, Inc. hereby constitutes and appoints Kenneth C. Schilling and Suzanne S. Taylor, and each of them, as the true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for the undersigned and in the name, place and stead of the undersigned, to sign on behalf of the undersigned as Director of Hyster-Yale Materials Handling, Inc., a Delaware corporation, an Annual Report pursuant to Section 13 of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 2019, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ H. Vincent Poor	February 19, 2020
H. Vincent Poor	Date

Exhibit 24.7

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Director of Hyster-Yale Materials Handling, Inc. hereby constitutes and appoints Kenneth C. Schilling and Suzanne S. Taylor, and each of them, as the true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for the undersigned and in the name, place and stead of the undersigned, to sign on behalf of the undersigned as Director of Hyster-Yale Materials Handling, Inc., a Delaware corporation, an Annual Report pursuant to Section 13 of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 2019, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ Claiborne R. Rankin	February 19, 2020
Claiborne R. Rankin	Date

Exhibit 24.8

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Director of Hyster-Yale Materials Handling, Inc. hereby constitutes and appoints Kenneth C. Schilling and Suzanne S. Taylor, and each of them, as the true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for the undersigned and in the name, place and stead of the undersigned, to sign on behalf of the undersigned as Director of Hyster-Yale Materials Handling, Inc., a Delaware corporation, an Annual Report pursuant to Section 13 of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 2019, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ Britton T. Taplin	February 19, 2020
Britton T. Taplin	Date

Exhibit 24.9

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Director of Hyster-Yale Materials Handling, Inc. hereby constitutes and appoints Kenneth C. Schilling and Suzanne S. Taylor, and each of them, as the true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for the undersigned and in the name, place and stead of the undersigned, to sign on behalf of the undersigned as Director of Hyster-Yale Materials Handling, Inc., a Delaware corporation, an Annual Report pursuant to Section 13 of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 2019, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ David B. H. Williams	February 19, 2020
David B. H. Williams	Date

Exhibit 24.10

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Director of Hyster-Yale Materials Handling, Inc. hereby constitutes and appoints Kenneth C. Schilling and Suzanne S. Taylor, and each of them, as the true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for the undersigned and in the name, place and stead of the undersigned, to sign on behalf of the undersigned as Director of Hyster-Yale Materials Handling, Inc., a Delaware corporation, an Annual Report pursuant to Section 13 of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 2019, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

/s/ Eugene Wong	February 19, 2020
Eugene Wong	Date

Exhibit 31(i)(1)

Certifications

I, Alfred M. Rankin, Jr., certify that:

1. I have reviewed this annual report on Form 10-K of Hyster-Yale Materials Handling, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15-d-15(f)), for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2020

/s/ Alfred M. Rankin, Jr.

Alfred M. Rankin, Jr.
Chairman, President and Chief Executive Officer
(principal executive officer)

Exhibit 31(i)(2)

Certifications

I, Kenneth C. Schilling, certify that:

1. I have reviewed this annual report on Form 10-K of Hyster-Yale Materials Handling, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15-d-15(f)), for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2020

/s/ Kenneth C. Schilling

Kenneth C. Schilling
Senior Vice President and Chief Financial Officer
(principal financial and accounting officer)

Exhibit 32

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Hyster-Yale Materials Handling, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), each of the undersigned officers of the Company certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's 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 dates and for the periods expressed in the Report.

Date: February 25, 2020

/s/ Alfred M. Rankin, Jr.

Alfred M. Rankin, Jr.

Chairman, President and Chief Executive Officer
(principal executive officer)

Date: February 25, 2020

/s/ Kenneth C. Schilling

Kenneth C. Schilling

Senior Vice President and Chief Financial Officer
(principal financial and accounting officer)