

**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, 2022

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

(State or other jurisdiction of incorporation or organization)

31-1637659

(I.R.S. Employer Identification No.)

5875 Landerbrook Drive

Suite 300

Cleveland

OH

(Address of principal executive offices)

44124-4069

(Zip code)

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

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal controls over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

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 30, 2022 (the last business day of the registrant's most recently completed second fiscal quarter): \$365,141,269

Number of shares of Class A Common Stock outstanding at February 24, 2023: 13,376,112

Number of shares of Class B Common Stock outstanding at February 24, 2023: 3,782,517

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's Proxy Statement for its 2023 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. The Company owns a 90% majority interest in Hyster-Yale Maximal Forklift (Zhejiang) Co., Ltd. ("Hyster-Yale Maximal"), 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. Lift trucks and component parts are manufactured in the United States, China, Northern Ireland, Mexico, the Netherlands, Brazil, the Philippines, Italy, Japan and Vietnam. Hyster-Yale was incorporated as a Delaware corporation in 1999.

The Company's segments for the lift truck business include the following: the Americas, EMEA and JAPIC. Americas includes lift truck operations in the United States, Canada, Mexico, Brazil, Latin America and the corporate headquarters. EMEA includes operations in Europe, the Middle East and Africa. JAPIC includes operations in the Asia and Pacific regions, including China, as well as the equity earnings of SN operations.

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 also produces components for lift truck manufacturers. 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.

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:

	2022	2021	2020
Lift trucks	73 %	73 %	76 %
Parts	15 %	15 %	14 %
Service, rental and other	7 %	6 %	5 %
Bolzoni	5 %	6 %	5 %
Nuvera	less than 1%	less than 1%	less than 1%

Sales of internal combustion engine lift trucks and electric lift trucks were approximately 43% and approximately 30% of annual revenues in 2022, 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 eleven lift truck manufacturing and assembly facilities worldwide with four plants in the Americas, three in EMEA and four in JAPIC, including joint venture operations. In addition, the Company operates six principal 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: 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 and beverage distributors, container handling companies and U.S. and non-U.S. governmental agencies.

Independent Dealers

The Company's dealers, located in 127 countries, are generally independently owned and operated. The following table summarizes the Company's dealers as of December 31, 2022:

	Hyster®	Yale®	Dual-Branded	Maximal®
Americas	12	24	33	15
EMEA	58	63	18	13
JAPIC	78	9	4	12
	148	96	55	40

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 17%, 20% and 23% of new lift truck unit volume in 2022, 2021 and 2020, 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 certain remarketing profits under a joint venture agreement. During 2022, the agreement was amended to extend the term through December 2028 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 17 and 18 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, 2022	September 30, 2022	December 31, 2021
Units (in thousands)	102.1	108.2	105.3
Backlog, approximate sales value (in millions)	\$ 3,730	\$ 3,700	\$ 2,880

As of December 31, 2022, 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 the next twelve months. 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. In certain circumstances, dealer orders may be cancelled, for a limited time period without penalty, after receiving notice of a surcharge on the order from the Company. 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

The Company has experienced and may continue to experience 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. Given the fixed pricing of a significant portion of the current backlog, 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 and may continue to experience significant shortages of key components for certain products, which has negatively affected production levels.

Government and Trade Regulations

The Company has been impacted by ongoing trade disputes with China, which 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.

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 also has the Emerging Market Development Center in China to support low-intensity product development.

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 United States, 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 2022, SN sold approximately 8,000 lift trucks.

Human Capital Resources

As of January 31, 2023, the Company had approximately 8,200 employees. The employees are distributed among each of the Company's businesses as follows:

Lift Truck	6,700
Bolzoni	1,300
Nuvera	200

Certain employees in the Danville, Illinois parts depot operations are unionized. The Company's contract with the Danville union expires in June 2024. All other employees at the Company's facilities in the United States 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.

The Company believes the long-term best interests of its stockholders are best served by embracing economic, social, environmental and health and safety objectives throughout its organization, which also contributes benefits to its customers and the communities in which it operates. The Company has established specific cost-effective corporate goals through its 2026 Vision program that are expected to reduce its impact on the environment and conserve natural resources. All of this is being carried out in the context of its leadership in electric forklift and fuel cell markets which have a significant positive environmental impact.

The Company considers its employees as a primary focus area of corporate responsibility. The Company's priority on people focuses on five main areas: occupational health and safety, employment, training and education, diversity and equal opportunity and engagement with local communities.

Occupational Health & Safety

Strong health and safety performance is essential to the success of the Company. The framework includes the monitoring and measurement of key performance indicators as the Company strives to ensure the health and safety of employees. The Company believes injury and illness should be avoided, and requires all employees to be effectively trained and responsible for the assurance of safety on a daily basis. Employees are encouraged to initiate safety improvements, participate in safety committees and reinforce safety behaviors at all times. The Company is striving to reduce the injury and illness rates in its global operations to zero by 2026. The Company's most recent metrics from 2020 showed an approximately 10% reduction in the injury and illness rates from the 2015 baseline.

In February 2020, a global task force was put into place with leaders from across the Company's global footprint to better monitor and respond to the escalating health crisis. Since that time, this group has met consistently to focus on and establish appropriate protocols to protect the health and well-being of our employees and the various external parties that interact with our Company, as well as monitor the ongoing challenges and demands of the business. The Company's protocols have and continue to be guided by the guidance of the World Health Organization, the Center for Disease Control, Federal/State Occupational Safety, and other governmental and health authorities.

The Company provided support and resources to our dealer network and customers to aid them in their response to the COVID-19 pandemic. This included tools, materials, and training through our "Dealer Portal," connections with leadership teams, and regular and consistent communications. An example of the programs provided was the development and launch of "HY-Shield Clean," a lift truck sanitization program designed to help keep facility personnel safe during operation of lift trucks, including daily operation and service calls. This was launched to help customers deal with fast changing conditions and maintain operations during the COVID-19 pandemic.

Employment

The Company recognizes the sustainability of its culture and success is strengthened when employees are respected, motivated and engaged. The Company works to match employees with assignments to capitalize on the skills, talents and potential of each employee.

The Company maintains seven core competencies for all employees: be innovative, be strategic, engage others, demonstrate presence, drive for results, develop and empower, and demonstrate business acumen.

Training and Education

The Company encourages employees to pursue professional and personal development through training and educational opportunities such as the Company's "Learning and Development Guide" and "Hyster-Yale Learning Center." Each employee is provided access to the guide and the digital learning platform providing a wide variety of development

opportunities with little or no cost to employees. In addition, many of our employees are required to complete annual Code of Corporate Conduct training and regular cybersecurity training.

Diversity and Equal Opportunity

The Company believes in hiring, engaging, developing and promoting people who are fully able to meet the demands of each position, regardless of race, color, religion, gender, sexual orientation, gender identity, national origin, age, veteran status or disability. The Company conducts surveys to monitor its performance in these areas.

The Company sponsors several employee resource groups that support employees, including the HYG Women's Network, the Veteran's Network and the Young Professional Network.

Engagement with Local Communities

As a major employer within many of our operating locations, the Company supports its local communities and is committed to helping them remain safe, healthy and resilient. The Company's past activities include corporate donations, volunteerism and education.

Environmental Health and Safety Responsibility

The Company is committed to accomplishing its business objectives in a manner that complies with its environmental health and safety obligations and requires all Company personnel to be responsible for their assurance, as outlined in the Code of Corporate Conduct. All Company personnel, contractors and suppliers are required to adhere to the following guidelines:

- comply with applicable environmental, health and safety requirements;
- advise supervisors of any potential environmental or safety hazards;
- keep all work areas free from environmental, health and safety hazards; and
- fulfill compliance obligations of the Company and government agencies.

In 2016, the Company established its 2026 Vision Program which, in part, established programs to be cost effectively achieved compared with a 2015 baseline as follows:

- strive to reduce carbon emission;
- strive to reduce volatile organic compound ("VOC") emissions from painting operations;
- strive to achieve zero waste to landfills at all sites;
- strive to reduce hazardous waste;
- strive to mitigate our waste footprint across all aspects of our value chain by reducing, reusing and recycling effluents and waste;
- strive to reduce water consumption; and
- strive to offer alternatives that enable customers to cost-effectively reduce carbon emissions.

The Company continues to responsibly manage products and packaging to make further progress with the projects set forth in the 2026 Vision Program. Although the Company has generally made progress, year over year progress was limited by COVID-19 labor shortages and supply chain disruption from 2019 to 2022.

The Company manages its compliance with government and industry product safety information. The majority of new products follow a structured and rigorous six-stage development process, with lift truck production taking place within ISO- and OHSAS-certified manufacturing sites. Each of the Company's manufacturing sites uses rigorous processes and testing to ensure that its products meet or exceed application requirements.

The Company's supply network includes both large international suppliers as well as smaller specialized providers, all of which are required to meet the stringent requirements outlined in the Company's Supplier Quality Manual and Code of Corporate Conduct for Business Partners.

As part of the Company's supplier screening process, all direct materials suppliers are required to ensure that they and their suppliers are compliant with The Company's UK Modern Slavery and Forced Labor Statements, Conflict Minerals Policy and Supplier Expectations Manual and applicable data privacy and environmental laws.

The Company's ownership of Nuvera is considered a transformational opportunity to be a global leader in a key emerging technology with the potential for zero emissions that can also provide enhanced productivity for heavy-duty motive power applications and for certain forklift truck applications. The objective for Nuvera is to be the preferred provider of heavy-duty fuel cell engines for zero-emissions mobility customers. Global interest in clean energy, as well as strong interest in Nuvera products by third parties, is increasingly supporting the achievement of this objective.

In recognition of continued leadership in supplier sustainability initiatives, the Company's Hyster® brand was listed as an Inbound Logistics' top 75 Green Supply Chain Partners for the tenth consecutive year due largely to its lithium-ion and hydrogen fuel cell power systems and telemetry solutions.

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, operational disruptions, 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.

Item 1A. RISK FACTORS

In addition to the other information in this Annual Report on Form 10-K and the Company's other filings with the SEC, the following risk factors should be carefully considered in evaluating the Company and its business before investing in the Company's common stock. The risks and uncertainties described below are not the only ones facing the Company. Additional risks and uncertainties, not presently known to the Company or otherwise, may also impair the Company's business. Although the risks are organized by headings, and each risk is discussed separately, many are interrelated. If any of the risks actually occur, the Company's business, financial condition, results of operations or stock price could be materially and adversely affected.

Risks Related to Our Business and Operations

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 fuel cell 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 significant shortages of key components for certain products which has negatively affected production levels. The results of operations and liquidity position 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 continue to increase, due to inflation, regulatory compliance or otherwise, and the Company is unable to pass the cost increases on to its customers.

Furthermore, disruptions associated with suppliers have impacted and may continue to impact the Company's liquidity position. If the normalization of supply chains and inflationary pressures is longer than anticipated, the Company may not be able to generate sufficient cash from operations which, among other things, could negatively impact the Company's debt levels and ability to access its credit facilities, or require the Company to seek additional financing sources, which may not be available on favorable terms or at all. If the Company suffers a liquidity shortage, the Company may be forced to reduce production levels, reduce planned capital investments, reduce workforce, decrease or suspend planned dividends, or adopt other measures.

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.

The Company has experienced and may continue to experience significant increases in materials costs, primarily as a result of inflationary pressures and 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 may 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 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 a number of operational risks relating 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. Increasing emphasis and changing expectations with respect to environmental, social and governance matters may impose additional costs on the Company or expose the Company to new or additional risks. In addition, 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, proposals to reform non-U.S. tax laws or other regulations could significantly impact how multinational corporations do business. The Company's effective income tax rate could be volatile and materially change as a result of changes in tax laws, mix of earnings and other factors. 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.

Furthermore, international trade may also be disrupted by geopolitical conflict and hostilities in the regions or involving the countries in which the Company operates. This could aggravate each of the foregoing risks, as well as disrupt our ability to operate in affected areas, including collecting on commercial receivables.

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 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 liquidity, operations and revenues and profitability could be significantly reduced.

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 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 euros, U.S. dollars, Japanese yen, British pounds, Chinese renminbi, Mexican pesos, Swedish kroner and Australian dollars, 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. The loss of or 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 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 \$133.2 million and \$106.8 million at December 31, 2022 and 2021, respectively. Generally, the Company maintains a perfected security interest in the assets financed such that, in the event 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.

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.

Risks Related to Cybersecurity

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 and 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.

Risks Related to Legal and Regulatory Matters

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.

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. In addition, insurance coverage is increasingly expensive, contains more stringent terms and may be difficult to obtain in the future.

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 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, including, for example, with respect to environmental, climate change, health and safety and cybersecurity matters. 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.

Risks Related to Key Personnel and Ownership

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, 2022, accounted for approximately 26 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, 2022, accounted for the remaining voting power of the Company. As of December 31, 2022, certain members of the Company's extended founding family held approximately 31 percent of the Company's outstanding Class A common stock and approximately 87 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 73 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	Assembly of lift trucks and manufacture of component parts
EMEA	Craigavon, Northern Ireland	Owned	Manufacture of lift trucks and component parts
	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, supply chain and marketing services
	Shanghai, China	Owned	Sale of parts and marketing operations of China
Bolzoni	Helsinki, Finland	Leased	Manufacture and distribution of Bolzoni products
	Hebei, 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 trucks
	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.	81	Chairman and Chief Executive Officer of Hyster-Yale (from February 2021), Chairman of HYG (from prior to 2018).	Chairman, President and Chief Executive Officer of Hyster-Yale (from prior to 2018 to February 2021).
Rajiv K. Prasad	59	President of Hyster-Yale (from February 2021), President and Chief Executive Officer of HYG (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 2018 to February 2018).
Stephen J. Karas	53	Senior Vice President, President APIC (from February 2020).	Vice President, Global Supply Chain of HYG (from prior to 2018 to January 2020).
Jennifer M. Langer	49	Vice President, Controller and Chief Accounting Officer of Hyster-Yale (from May 2021), Vice President, Controller of HYG (from prior to 2018).	Vice President, Controller of Hyster-Yale (from prior to 2018 to May 2021).
Scott A. Minder	49	Senior Vice President, Chief Financial Officer and Treasurer of Hyster-Yale (from September 2022).	Vice President, Treasurer and Investor Relations of ATI Inc. (a global specialty materials and component company) (from June 2018 to August 2022), Vice President, Investor Relations of ATI Inc. (from prior to 2018 to June 2018).
Stewart D. Murdoch	52	Senior Vice President, Managing Director, Europe, Middle East and Africa of HYG (from October 2020).	General Manager, Director and Head of EMEA North and Australasia, Habasit (UK), Ltd. (an industrial company) (from prior to 2018 to September 2020).
Charles F. Pascarelli	63	Senior Vice President, President, Americas of HYG (from prior to 2018).	
Anthony J. Salgado	52	Chief Operating Officer of HYG (from July 2019).	Senior Vice President, JAPIC of HYG (from prior to 2018 to June 2019).
Jon C. Taylor	58	Chief Financial Officer of HYG (from February 2022)	VP Finance of HYG (from July 2020 to January 2022), President, Nuvera Fuel Cells (from November 2018 to June 2020), President and CEO, Nuvera Fuel Cells (from prior to 2018 to October 2018).
Suzanne S. Taylor	60	Senior Vice President, General Counsel and Secretary of Hyster-Yale (from prior to 2018), Senior Vice President, General Counsel and Secretary of HYG (from prior to 2018).	

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, 2022, there were approximately 813 Class A common stockholders of record and approximately 735 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. [RESERVED]

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 order rate for lift trucks fluctuates depending on the economic activity level 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, Brazil, the Philippines, Italy, Japan and Vietnam.

As of December 31, 2022, the Company owned a 90% majority interest in Hyster-Yale Maximal Forklift (Zhejiang) Co., Ltd. ("Hyster-Yale Maximal"), 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. During 2021, the Company signed an Equity Transfer Agreement with Y-C Hongkong Holding Co., Limited ("HK Holding Co"). In June 2022, the Company purchased 15% of the equity interest of Hyster-Yale Maximal from HK Holding Co for an aggregate purchase price of \$25.2 million, which will be paid in annual installments of \$8.4 million beginning June 2022 through June 2024. The Company has an option to purchase HK Holding Co's 10% remaining interest in Hyster-Yale Maximal at any time prior to June 8, 2056 for \$16.8 million. If this option is exercised, the Company will own 100% of the equity interest of Hyster-Yale Maximal.

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 also produces components for lift truck manufacturers. 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.

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 objective is to be a leading, globally integrated designer, manufacturer and marketer of a complete range of lift truck solutions offering the lowest cost of ownership and the best overall value by leveraging its high quality, application-tailored lift trucks, attachments and power solutions in order to transform the way the world moves materials from Port to Home. 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 this 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.

See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Company's 2021 Annual Report on Form 10-K for discussion of financial condition and results of operations for 2021 compared with 2020.

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, 2022 were \$310.0 million, \$57.2 million, \$51.3 million and \$42.7 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.

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, 2022 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 the annual testing, the fair value of each reporting unit was in excess of its carrying value and no impairment existed. As of December 31, 2022, Bolzoni had \$48.6 million of goodwill. Based on the most recent interim impairment test, Bolzoni's fair value of equity exceeded the carrying value by \$79.9 million or approximately 47%.

During 2021, the Company continued to experience pandemic-related and other global supply chain constraints, component shortages, shipping container availability constraints and higher freight costs, as well as significant material cost inflation resulting from the accelerated pace of the market recovery. These items significantly impacted the Company's results of operations in 2021. In addition, the timeframe for the expected easing of these factors impacted the Company's near and long-term forecasts. Accordingly, in connection with the preparation of the 2021 financial statements, the Company conducted an interim goodwill impairment test as of December 31, 2021 for the JAPIC and Bolzoni reporting units. As a result, the Company recognized a \$55.6 million goodwill impairment charge for the JAPIC reporting unit in the fourth quarter of 2021, of which \$11.7 million related to the non-controlling interest share. No impairment of goodwill for the Bolzoni reporting unit was identified.

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 as of May 1, 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 \$42.7 million of net intangible assets, \$16.0 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, 2022, no impairment was identified.

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 continued high level of disruption to the Company's manufacturing and logistics operations for 2021 and the effects of the COVID-19 pandemic, including border closures, halted Nuvera's progress on certain research and development agreements that were entered into prior to the start of the pandemic. In anticipation of fulfilling these agreements, Nuvera made significant investments in manufacturing and equipment expansion, as well as increased inventory levels. As a result, it was determined in connection with the preparation of the financial statements for 2021 that the carrying value of the Nuvera fixed assets exceeded the undiscounted cash flows from the assets and the carrying value of Nuvera's fixed assets exceeded the fair value by \$10.0 million.

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.

Deferred Income Taxes: 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. U.S. generally accepted accounting principles 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 or no longer needed. At December 31, 2022, the Company had gross deferred tax assets of \$139.2 million which were reduced by valuation allowances of \$121.7 million and gross deferred tax liabilities of \$28.3 million.

Product liabilities: The Company is generally self-insured for product liability claims, although catastrophic insurance coverage is retained for potentially significant individual claims and the Company also has insurance for certain historic claims. 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, legal defense 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 \$0.6 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.

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 2022 levels, the product warranties reserves would increase and reduce operating profit by approximately \$3.1 million. 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.

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 the Company's U.K. pension plan 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) 2023 net pension expense	Increase (decrease) 2022 projected benefit obligation
Discount rate	1% increase	\$0.1	\$(29.5)
	1% decrease	(0.3)	36.2
Return on plan assets	1% increase	(2.5)	N/A
	1% decrease	2.5	N/A

A change in life expectancy by one year would result in a \$4.2 million change in the 2022 projected benefit obligation. See Note 9 to the consolidated financial statements in this Annual Report on Form 10-K for further discussion of the retirement benefit plans.

CONSOLIDATED FINANCIAL REVIEW

The following table identifies the components of change for 2022 compared with 2021 by segment:

	Revenues	Gross Profit	Operating Profit (Loss)	Net Income (Loss) Attributable to Stockholders
2021	\$ 3,075.7	\$ 363.4	\$ (152.3)	\$ (173.0)
Increase (decrease) in 2022				
Americas	420.8	81.6	66.5	85.7
EMEA	25.3	(41.9)	(46.9)	(47.2)
JAPIC	16.1	1.4	56.9	38.1
Lift truck business	462.2	41.1	76.5	76.6
Bolzoni	7.9	9.2	8.0	5.5
Nuvera	2.7	19.5	28.0	25.1
Eliminations	(0.2)	0.7	0.7	(8.3)
2022	\$ 3,548.3	\$ 433.9	\$ (39.1)	\$ (74.1)

FINANCIAL REVIEW

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

	2022	2021	Favorable / (Unfavorable) % Change 2022 vs. 2021
Lift truck unit shipments (in thousands)			
Americas	58.4	54.5	7.2 %
EMEA	29.2	26.5	10.2 %
JAPIC	13.2	13.9	(5.0)%
	100.8	94.9	6.2 %
Revenues			
Americas	\$ 2,405.4	\$ 1,984.6	21.2 %
EMEA	704.2	678.9	3.7 %
JAPIC	250.0	233.9	6.9 %
Lift truck business	3,359.6	2,897.4	16.0 %
Bolzoni	355.7	347.8	2.3 %
Nuvera	3.4	0.7	385.7 %
Eliminations	(170.4)	(170.2)	n.m.
	\$ 3,548.3	\$ 3,075.7	15.4 %
Gross profit (loss)			
Americas	\$ 303.4	\$ 221.8	36.8 %
EMEA	45.0	86.9	(48.2)%
JAPIC	22.6	21.2	6.6 %
Lift truck business	371.0	329.9	12.5 %
Bolzoni	70.7	61.5	15.0 %
Nuvera	(7.2)	(26.7)	73.0 %
Eliminations	(0.6)	(1.3)	n.m.
	\$ 433.9	\$ 363.4	19.4 %
Selling, general and administrative expenses			
Americas	\$ 256.6	\$ 241.5	(6.3)%
EMEA	91.6	86.6	(5.8)%
JAPIC	33.2	88.7	62.6 %
Lift truck business	381.4	416.8	8.5 %
Bolzoni	64.5	63.3	(1.9)%
Nuvera	27.1	35.6	23.9 %
	\$ 473.0	\$ 515.7	8.3 %
Operating profit (loss)			
Americas	\$ 46.8	\$ (19.7)	337.6 %
EMEA	(46.6)	0.3	n.m.
JAPIC	(10.6)	(67.5)	84.3 %
Lift truck business	(10.4)	(86.9)	88.0 %
Bolzoni	6.2	(1.8)	444.4 %
Nuvera	(34.3)	(62.3)	44.9 %
Eliminations	(0.6)	(1.3)	n.m.
	\$ (39.1)	\$ (152.3)	74.3 %

	2022	2021	Favorable / (Unfavorable) % Change 2022 vs. 2021
Interest expense	28.4	15.5	(83.2)%
Other income	(5.1)	(12.9)	(60.5)%
Income (loss) before income taxes	(62.4)	(154.9)	59.7 %
Net income (loss) attributable to stockholders	\$ (74.1)	\$ (173.0)	57.2 %
Diluted earnings (loss) per share	\$ (4.38)	\$ (10.29)	57.4 %
Reported income tax rate	(14.7)%	(18.3)%	

n.m. - not meaningful

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. Unit backlog as of December 31, 2022 and September 30, 2022, excludes 2,600 suspended orders, for which the Company has no plans to fulfill. As of December 31, 2022, substantially all of the Company's backlog is expected to be sold within the next twelve months.

	YEAR ENDED December 31, 2022	NINE MONTHS ENDED September 30, 2022	YEAR ENDED December 31, 2021
Unit backlog, beginning of period	105.3	105.3	40.6
Unit shipments	(100.8)	(73.7)	(94.9)
Unit bookings	97.6	76.6	159.6
Unit backlog, end of period	102.1	108.2	105.3

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. Sales value of the Company's backlog as of December 31, 2022 and September 30, 2022, excludes the sales value of 2,600 suspended orders, for which the Company has no plans to fulfill.

	YEAR ENDED December 31, 2022	NINE MONTHS ENDED September 30, 2022	YEAR ENDED December 31, 2021
Bookings, approximate sales value	\$ 3,080	\$ 2,390	\$ 3,820
Backlog, approximate sales value	\$ 3,730	\$ 3,700	\$ 2,880

2022 Compared with 2021

The following table identifies the components of change in revenues for 2022 compared with 2021:

	Revenues			
	Total	Lift truck		
		Americas	EMEA	JAPIC
2021	\$ 3,075.7	\$ 1,984.6	\$ 678.9	\$ 233.9
Increase (decrease) in 2022 from:				
Unit price	300.3	234.0	56.4	9.9
Unit volume and product mix	132.5	70.4	51.6	10.5
Parts	74.7	66.2	9.0	(0.5)
Other	51.4	45.7	1.5	4.2
Foreign currency	(96.7)	4.5	(93.2)	(8.0)
Eliminations	(0.2)	—	—	—
Bolzoni revenues	7.9	—	—	—
Nuvera revenues	2.7	—	—	—
2022	\$ 3,548.3	\$ 2,405.4	\$ 704.2	\$ 250.0

Revenues increased 15.4% to \$3,548.3 in 2022 from \$3,075.7 million in 2021. The increase was primarily due to improved pricing, higher unit and parts volume, a shift in sales to higher-priced lift trucks and favorable aftermarket sales in the Lift Truck business, partially offset by unfavorable currency movements from the translation of sales into U.S. dollars.

The following table identifies the components of change in operating profit (loss) for 2022 compared with 2021:

	Operating Profit (Loss)			
	Total	Americas	Lift truck EMEA	JAPIC
2021	\$ (152.3)	\$ (19.7)	0.3	\$ (67.5)
Increase (decrease) in 2022 from:				
Goodwill impairment charge	55.6	—	—	55.6
	(96.7)	(19.7)	0.3	(11.9)
Lift truck gross profit and eliminations	41.8	81.6	(41.9)	1.4
Lift truck selling, general and administrative expenses	(20.2)	(15.1)	(5.0)	(0.1)
Nuvera operations	28.0	—	—	—
Bolzoni operations	8.0	—	—	—
2022	\$ (39.1)	\$ 46.8	(46.6)	(10.6)

The Company recognized an operating loss of \$39.1 million in 2022 compared with \$152.3 million in 2021. The reduction in operating loss was mainly due to the absence of a non-cash impairment charge for goodwill of \$55.6 million in JAPIC in 2021, increased gross profit in the lift truck business and a lower operating loss at Nuvera mainly from \$26.1 million of charges related to the impairment of Nuvera's property, plant and equipment and inventory losses recorded in 2021. The increase in gross profit in 2022 compared to 2021 was primarily due to favorable pricing of \$300.5 million and improved unit and parts volume in the lift truck business. The increase in gross profit was partially offset by \$257.3 million of material cost inflation and higher manufacturing costs resulting from inefficiencies associated with component shortages as well as unfavorable foreign currency movements, including derivative contracts, of \$43.3 million.

Americas recognized an operating profit of \$46.8 million in 2022 compared with an operating loss of \$19.7 million in 2021 primarily due to an increase in gross profit. Gross profit improved primarily as result of favorable pricing of \$234.0 million and improved unit and parts volume. The increase in gross profit was partially offset as result of material and freight cost inflation and higher manufacturing costs resulting from inefficiencies associated with component shortages of \$189.9 million and unfavorable foreign currency movements, including derivative contracts, of \$23.4 million. Higher selling, general and administrative expenses primarily due to increase employee-related costs partially offset the improvement in gross profit.

EMEA recognized an operating loss of \$46.6 million in 2022 compared with operating profit of \$0.3 million in 2021 mainly as result of lower gross profit. Gross profit decreased primarily due to material cost inflation and higher manufacturing costs resulting from inefficiencies associated with component shortages of \$95.5 million and unfavorable foreign currency movements of \$18.4 million. The decrease in gross profit was partially offset by improved pricing of \$56.4 million and higher unit and parts volumes.

JAPIC's operating loss improved to \$10.6 million in 2022 from \$67.5 million in 2021 primarily due to the absence of a non-cash impairment charge for goodwill of \$55.6 million recognized in 2021. In addition, higher gross profit from improved pricing was partially offset by higher manufacturing costs resulting from inefficiencies associated with component shortages and unfavorable foreign currency movements.

Bolzoni recognized operating profit of \$6.2 million in 2022 compared with an operating loss of \$1.8 million in 2021 primarily due to higher gross profit from improved pricing and a shift in mix to higher-margin products, partially offset by material cost inflation and unfavorable foreign currency exchange rates.

Nuvera's operating loss improved to \$34.3 million in 2022 compared with \$62.3 million in 2021 mainly as a result of the absence of non-cash charges of \$26.1 million recorded in 2021 for Nuvera's inventory and property, plant and equipment. See Notes 10 and 11 for further discussion of these charges at Nuvera.

The Company recognized a net loss attributable to stockholders of \$74.1 million in 2022 compared with \$173.0 million in 2021. The improvement was primarily the result of higher operating profit and the absence of a valuation allowance of \$58.6 million provided against deferred tax assets in 2021. These items were partially offset by higher interest expense, the absence of the

non-controlling interest share of the goodwill impairment charge at JAPIC of \$11.7 million in 2021, higher pension expense and a \$4.6 million gain related to the sale of the Company's preferred shares of OneH2, Inc. ("OneH2") recognized in 2021. See Note 6 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:

	2022	2021	Change
Operating activities:			
Net income (loss)	\$ (71.6)	\$ (183.2)	\$ 111.6
Depreciation and amortization	43.4	46.2	(2.8)
Dividends from unconsolidated affiliates	15.6	5.5	10.1
Impairment charges	—	65.6	(65.6)
Working capital changes:			
Accounts receivable	(89.5)	(54.6)	(34.9)
Inventories	(39.1)	(289.7)	250.6
Accounts payable and other liabilities	173.6	176.0	(2.4)
Other current assets	(5.4)	(12.5)	7.1
Other operating activities	13.6	(6.8)	20.4
Net cash provided by (used for) operating activities	40.6	(253.5)	294.1
Investing activities:			
Expenditures for property, plant and equipment	(28.8)	(44.3)	15.5
Proceeds from the sale of assets and investments	1.8	19.8	(18.0)
Purchase of noncontrolling interest	(8.4)	—	(8.4)
Net cash used for investing activities	(35.4)	(24.5)	(10.9)
Cash flow before financing activities	\$ 5.2	\$ (278.0)	\$ 283.2

The change in net cash provided by (used for) operating activities of \$294.1 million in 2022 compared with 2021 was primarily a result of changes in working capital items and net income (loss), partially offset by the absence of non-cash charges of \$55.6 million and \$10.0 million for goodwill and long-lived asset impairments, respectively, recorded in 2021. The changes in working capital were mainly due to a smaller increase in inventory in 2022 compared 2021.

The change in net cash used for investing activities during 2022 compared with 2021 is due to the absence of the proceeds from the sale of preferred shares of OneH2 in 2021 and the current year's installment purchase of Hyster-Yale Maximal's noncontrolling interest in 2022, partially offset by lower capital expenditures in 2022.

	2022	2021	Change
Financing Activities:			
Net increase in long-term debt and revolving credit agreements	\$ 11.1	\$ 223.0	\$ (211.9)
Cash dividends paid	(21.8)	(21.6)	(0.2)
Other	(0.2)	(0.2)	—
Financing fees paid	—	(7.6)	7.6
Net cash provided by (used for) financing activities	\$ (10.9)	\$ 193.6	\$ (204.5)

The change in net cash provided by (used for) financing activities in 2022 compared with 2021 was primarily due to a smaller increase in borrowings during 2022 versus 2021, partially offset by the absence of financing fees paid in 2021.

Financing Activities

The Company has a \$300.0 million secured, floating-rate revolving credit facility (the "Facility") that expires in June 2026 and a \$225.0 million term loan (the "Term Loan"), which matures in May 2028.

The Facility can be increased up to \$400.0 million over the term of the Facility in minimum increments of \$10.0 million, subject to approval by the lenders. The obligations under the Facility are generally secured by a first priority lien on working capital assets of the borrowers and guarantors in the Facility, which includes but is not limited to cash and cash equivalents, accounts receivable and inventory, and a second priority lien on the present and future shares of capital stock, fixtures and general intangibles consisting of intellectual property. The approximate book value of assets held as collateral under the Facility was \$1.1 billion as of December 31, 2022.

The Facility includes restrictive covenants, which, among other things, limit additional borrowings and investments of the Company subject to certain thresholds, as provided in the Facility. The Facility limits the payment of dividends and other restricted payments the Company may make unless certain total excess availability and/or fixed charge coverage ratio thresholds, each as set forth in the Facility, are satisfied. The Facility also requires the Company to achieve a minimum fixed charge coverage ratio when total excess availability is less than the greater of 10% of the total borrowing base, as defined in the Facility, and \$20.0 million. At December 31, 2022, the Company was in compliance with the covenants in the Facility.

Key terms of the Facility as of December 31, 2022 were as follows:

	FACILITY
U.S. borrowing capacity	\$ 210.0
Non-U.S. borrowing capacity	90.0
Outstanding	134.6
Availability restrictions	7.7
Availability	\$ 157.7
Applicable margins, as defined in agreement	
U.S. base rate loans	0.25%-0.75%
LIBOR, EURIBOR and foreign base rate loans	1.25%-1.75%
Applicable margins, for amounts outstanding	
U.S. base rate and LIBOR loans	0.50%; 1.50%
Non-U.S. base rate and LIBOR loans	1.50 %
Applicable interest rate, for amounts outstanding	
U.S. base rate	8.00 %
LIBOR	5.69 %
EURIBOR	3.88 %
Facility fee, per annum on unused commitment	0.25 %

The Term Loan requires quarterly principal payments on the last day of each March, June, September and December commencing September 30, 2021 in an amount equal to \$562,500 and the final principal repayment is due in May 2028. The Company may also be required to make mandatory prepayments, in certain circumstances, as provided in the Term Loan.

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 and a second priority lien on working capital assets of the borrowers of the Facility, which includes, but is not limited to cash and cash equivalents, accounts receivable and inventory. The approximate book value of assets held as collateral under the Term Loan was \$750 million as of December 31, 2022.

In addition, the Term Loan includes restrictive covenants, which, among other things, limit additional borrowings and investments of the Company subject to certain thresholds, as provided in the Term Loan. The Term Loan limits the payment of dividends and other restricted payments the Company may make in any fiscal year, unless the consolidated total net leverage ratio, as defined in the Term Loan, does not exceed 2.50 to 1.00 at the time of the payment. At December 31, 2022, the Company was in compliance with the covenants in the Term Loan.

Key terms of the Term Loan as of December 31, 2022 were as follows:

	TERM LOAN
Outstanding	\$ 221.6
Discounts and unamortized deferred financing fees	4.1
Net amount outstanding	\$ 217.5
Applicable margins, as defined in agreement	
U.S. base rate loans	2.50 %
Eurodollar	3.50 %
Eurodollar floor	0.50 %
Applicable interest rate, for amounts outstanding	7.88 %

The Company incurred fees of \$7.6 million in 2021. These fees related to amending the Facility and the Term Loan. These fees were deferred and are being amortized as interest expense over the term of the applicable debt agreements. No fees were incurred in 2022 or 2020. 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 \$171.2 million at December 31, 2022. In addition to the excess availability under the Facility of \$157.7 million, the Company had remaining availability of \$25.2 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 June 2026.

Contractual Obligations, Contingent Liabilities and Commitments

Following is a table summarizing the contractual obligations as of December 31, 2022:

Contractual Obligations	Payments Due by Period						
	Total	2023	2024	2025	2026	2027	Thereafter
Term Loan	\$ 221.6	\$ 2.3	\$ 2.3	\$ 2.2	\$ 2.2	\$ 2.2	\$ 210.4
Variable interest payments on Term Loan	92.6	18.4	18.3	17.8	17.7	17.5	2.9
Revolving credit agreements	137.1	137.1	—	—	—	—	—
Variable interest payments on revolving credit agreements	10.1	10.1	—	—	—	—	—
Other debt	168.7	134.5	16.9	10.9	6.4	—	—
Variable interest payments on other debt	14.6	8.0	3.0	2.0	1.6	—	—
Finance lease obligations including principal and interest	30.0	13.4	10.2	4.9	0.8	0.7	—
Operating leases	70.4	16.2	12.3	8.9	7.0	6.1	19.9
Tax Reform Act transition tax liability	10.5	2.6	3.5	4.4	—	—	—
Purchase and other obligations	814.6	810.4	—	1.5	2.7	—	—
Total contractual cash obligations	<u>\$ 1,570.2</u>	<u>\$ 1,153.0</u>	<u>\$ 66.5</u>	<u>\$ 52.6</u>	<u>\$ 38.4</u>	<u>\$ 26.5</u>	<u>\$ 233.2</u>

The principal sources of financing for these contractual obligations are expected to be internally generated funds and bank financing.

The Company has a long-term liability of approximately \$7.7 million for unrecognized tax benefits, including interest and penalties, as of December 31, 2022. 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, 2022 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 \$0.3 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 \$1.4 million to its non-U.S. pension plans in 2023.

In addition, the Company has recourse and repurchase obligations with a maximum undiscounted potential liability of \$133.2 million at December 31, 2022. 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.

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, 2022 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 2023	Actual 2022	Actual 2021
Lift truck business	\$ 52.4	\$ 20.3	\$ 30.6
Bolzoni	8.9	5.5	10.4
Nuvera	3.9	3.0	3.3
	<u>\$ 65.2</u>	<u>\$ 28.8</u>	<u>\$ 44.3</u>

Planned expenditures in 2023 are primarily for product development, improvements to information technology infrastructure and improvements at manufacturing locations and manufacturing equipment. The primary sources of financing for these capital expenditures are expected to be internally generated funds and bank financing.

Capital Structure

	December 31		Change
	2022	2021	
Cash and cash equivalents	\$ 59.0	\$ 65.5	\$ (6.5)
Other net tangible assets	625.0	728.7	(103.7)
Intangible assets	42.7	50.7	(8.0)
Goodwill	51.3	56.5	(5.2)
Net assets	<u>778.0</u>	<u>901.4</u>	<u>(123.4)</u>
Total debt	<u>(552.9)</u>	<u>(518.5)</u>	<u>(34.4)</u>
Total temporary and permanent equity	<u>\$ 225.1</u>	<u>\$ 382.9</u>	<u>\$ (157.8)</u>
Debt to total capitalization	71 %	58 %	13 %

RELATED-PARTY TRANSACTIONS

See Note 18 to the consolidated financial statements in this Annual Report on Form 10-K for further discussion of related party transactions.

PERSPECTIVE AND OUTLOOK

Market Commentary

The global economic outlook remains constrained and economic activity appears to be decelerating in many parts of the world. This global downturn is due to several factors, including tight monetary policies in various countries designed to contain inflation, as well as uncertainties around China's economic reopening and the ongoing Russia/Ukraine conflict. The conflict has already negatively impacted economic activity, particularly in Europe, for a sustained period. The latest publicly available global lift truck market data shows a definitive decrease in third-quarter 2022 market activity compared with peak third-quarter levels seen in 2021 as all major geographic regions experienced double digit percentage market declines. Internal company estimates suggest that the global lift truck market will have declined in the fourth-quarter 2022 across all geographic regions compared with the prior year quarter. However, a modest volume increase versus third-quarter 2022 is predicted, primarily due to an anticipated improvement in EMEA.

Looking ahead, the global lift truck market is expected to decline for the full-year 2023 compared with 2022 in all regions except JAPIC, which is anticipated to increase modestly year-over-year. However, 2023's global market unit volumes are expected to remain relatively strong and above pre-pandemic levels in all regions except EMEA.

Several years of extraordinary lift truck market growth stretched supplier capacity to, and in some cases beyond, its limits. A moderate market slowdown could allow the lift truck component supply base to meet their supply requirements more effectively and allow the Company to work down its extended backlog.

Operational Perspectives - Lift Truck Business

As a result of several factors, including the large but declining market, a focus on booking orders with solid margins and the Company's extended lead times, fourth-quarter 2022 lift truck bookings decreased significantly from robust prior-year levels. However, fourth-quarter 2022 bookings increased modestly from third-quarter 2022 largely due to a seasonal rebound in EMEA and better-than-expected fourth-quarter market conditions in the Americas. Looking forward to 2023, bookings' levels are expected to decrease year-over-year due to the moderating market outlook and the Company's continued focus on higher-margin units while also balancing the need to maintain a full production pipeline across its facilities. These anticipated bookings' decreases, combined with planned production increases, should help the Company reduce its backlog, which has begun trending down, to more competitive levels over the course of 2023.

Full-year 2023 production and shipment volumes are expected to increase versus 2022 helping to alleviate the substantial backlog level and reduce lead times as anticipated continued supply chain improvements are achieved. Despite these expected improvements, lengthy lead times are expected to remain. However, they should help mitigate the impact of a recessionary economic environment on the business.

Order selectivity has resulted in higher average prices and margins for both unit bookings and backlog. As the Company works through its backlog in 2023, lower-margin units are expected to ship during the 2023 first quarter and the majority of 2023 shipments are anticipated to be produced from the currently existing higher-margin backlog. As a result, average unit margins are expected to continue to improve, including into 2024 when new bookings with anticipated higher margins are expected to be produced.

The Company continues to experience material and labor cost increases, but the rate of increase has slowed. Forward economic indicators suggest inflationary pressures have begun to abate and cost inflation is expected to gradually moderate throughout 2023, absent any unanticipated effects from geopolitical events and public health crises. Due to the substantial inflationary pressure over the past two years, the Lift Truck business implemented several price increases. In 2023, the Company expects a positive price-to-current cost ratio, in part to address ongoing cost increases in certain areas. The Company will continue to monitor material and labor costs closely, as well as the impact of tariffs, and adjust pricing accordingly. As a result of abating cost increases and the current significant backlog level with its expected built-in margin increases over time, the Company believes unit margins should increase significantly in 2023 in aggregate versus 2022 and will lead to significant improvements in operating profit in 2023. Lift Truck operating profit in each of the 2023 quarters is expected to exceed 2022 fourth quarter results, with improvements following normal business seasonality patterns.

The above factors, as well as the benefits from the Company's ongoing strategic initiatives as they mature, are expected to lead to a significant increase in revenues and a substantial operating profit in 2023 at the Lift Truck business. These assumptions, however, are highly sensitive to the effect of various market forces, particularly those that impact global supply chains.

Strategic Perspectives - Lift Truck

From a broader perspective, the Lift Truck Business has three core strategies that are expected to transform the Company's competitiveness, market position and economic performance over time:

- To provide the lowest cost of ownership while enhancing customer productivity. This is expected to be achieved by further expanding a wide variety of vehicle innovations including: new modular and scalable product families, truck electrification projects and technology advancements in product automation, power options, telemetry and operator assist systems;
- Be the leader in the delivery of industry- and customer-focused solutions, by transforming the Company's sales approach to meet a wide variety of customer needs across a broad set of end markets; and
- Be the leader in independent distribution, by focusing on effectively coordinating dealer and major accounts coverage, dealer excellence and ensuring outstanding dealer ownership globally.

The Company continues to make progress on its high priority projects. Notably, in fourth-quarter 2022, the Company announced that its first hydrogen fuel cell-powered container handler, powered by Nuvera[®] fuel cell engines, began its testing pilot at the Port of Los Angeles (CA). After successfully performing in lighter applications, the truck has advanced to more difficult applications. Additionally, the Lift Truck business launched its first modular, scalable lift trucks in 2022, first to the EMEA market in May followed by the Americas market late in the year. Given the current extended backlog, the production ramp-up for this new product line is occurring gradually. Early customer reports indicate that this new 2- to 3-ton standard internal combustion engine lift truck is being well-received in both markets. The Company expects to launch this product in the JAPIC market in mid-2023.

Operational and Strategic Perspectives - Bolzoni

Over the course of 2023, Bolzoni expects component shortages to continue moderating, while further increasing prices to offset higher input costs. Combined, these are expected to result in increased margins over time and higher 2023 full-year operating profit compared with 2022.

Bolzoni's core strategy is to be the leader in the Attachments business. In this context, Bolzoni continues to concentrate on driving its "One Company - 3 Brands" approach and increasing its Americas business, while focusing on strengthening its ability to serve key attachment industries and customers in all global markets. Bolzoni also intends to increase its sales, marketing and product support capabilities in North America and Europe to support its industry-specific sales strategy.

Operational and Strategic Perspectives - Nuvera

Nuvera's core strategy is to be a leader in the fuel cell business. Nuvera continues to focus on placing 45kW and 60kW fuel cell engines in niche, heavy-duty vehicle applications with expected significant fuel cell adoption potential. Nuvera announced several projects in 2022 with various third parties to test Nuvera[®] engines in heavy-duty applications, including the Port of Los Angeles, which began testing in late 2022, and in multiple European ports which are expected to begin testing in 2023. Nuvera is also developing a new 125kW fuel cell engine for heavier-duty applications.

In 2023, Nuvera expects continued focus on ramping up customer product demonstrations and customer bookings, which are expected to result in higher sales and moderately higher costs. Combined, this is expected to generate a loss comparable to 2022 but significantly enhance the foundation for future technology adoption and improved financial returns.

Consolidated Outlook

On a consolidated basis, the Company is nearing completion on its efforts to build out the lower-priced, lower-margin backlog units held over from prior periods. As a result, continued margin expansion is expected to lead to substantial operating profit and net income for the 2023 full year. These expectations are based on the Company's ability to effectively manage ongoing component shortages, modestly increase production levels and see a reasonable stabilization of material and freight costs.

The Company's steps to improve profitability are producing tangible results. Efforts to reduce inventory and generate cash are expected to show substantial progress in the second half of 2023. The Company remains committed to enhancing its cash flows, with ongoing action plans to improve future results including continued discipline over capital expenditures and operating expenses. Capital expenditures are expected to be approximately \$65 million for full-year 2023, with spending more heavily weighted toward the second half of the year. This full-year increase over significantly restrained 2022 levels is required to adequately maintain the Company's facilities and includes a modest return to investing for long-term profitable growth.

Working capital continues to be an area of intense focus for the Company. Inventory levels remain above historical pre-pandemic levels due to prior production delays because of parts and labor shortages. In the first half of 2023, reducing

inventory levels will be a key focus area. Efforts to maximize use of on-hand inventory, coupled with material purchases below expected production rates, should help to reduce excess inventory levels around the Company in both the first and second half of 2023. Supply constraints continue to be an issue sporadically around the globe, but the Company expects continued improvements as 2023 progresses. As a result of these actions, the Company expects a significant increase in cash flow before financing activities for the full-year 2023 compared with 2022.

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 of this Annual Report on Form 10-K. 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) delays in delivery and other supply chain disruptions, or increases in costs as a result of inflation or otherwise, including materials and transportation costs and shortages, the imposition of tariffs, or the renewal of tariff exclusions, on raw materials or sourced products, and labor, or changes in or unavailability of quality suppliers or transporters, including the impacts of the foregoing risks on the Company's liquidity, (2) delays in manufacturing and delivery schedules, (3) customer acceptance of pricing, (4) any preventive or protective actions taken by governmental authorities related to the COVID-19 pandemic, and any unfavorable effects of the COVID-19 pandemic on either the Company's or its suppliers plants' capabilities to produce and ship products, (5) unfavorable effects of geopolitical and legislative developments on global operations, including without limitation the entry into new trade agreements and the imposition of tariffs and/or economic sanctions, as well as armed conflicts, including the Russia/Ukraine conflict, and their regional effects, (6) the ability of the Company and its dealers, suppliers and end-users to access credit in the current economic environment, or obtain financing at reasonable rates, or at all, as a result of interest rate volatility and current economic and market conditions, including inflation, (7) reduction in demand for lift trucks, attachments and related aftermarket parts and service on a global basis, including any reduction in demand as a result of an economic recession, (8) exchange rate fluctuations, interest rate volatility and monetary policies and other changes in the regulatory climate in the countries in which the Company operates and/or sells products, (9) the effectiveness of the cost reduction programs implemented globally, including the successful implementation of procurement and sourcing initiatives, (10) the successful commercialization of Nuvera's technology, (11) impairment charges, (12) the political and economic uncertainties in the countries where the Company does business, as well as the effects of any withdrawals from such countries, (13) bankruptcy of or loss of major dealers, retail customers or suppliers, (14) customer acceptance of, changes in the costs of, or delays in the development of new products, (15) introduction of new products by, more favorable product pricing offered by or shorter lead times available through competitors, (16) product liability or other litigation, warranty claims or returns of products, (17) changes mandated by federal, state and other regulation, including tax, health, safety or environmental legislation, and (18) the ability to attract, retain, and replace workforce and administrative employees.

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 8 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 asset of \$16.1 million at December 31, 2022. A hypothetical 10% decrease in interest rates would cause a decrease in the fair value of interest rate swap agreements and the asset would decrease by approximately \$3.2 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, Japanese yen, U.S. dollars, Chinese renminbi, British pounds, Mexican pesos, Swedish kroner and Australian dollars 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 \$43.5 million at December 31, 2022. See also Note 8 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, 2022, the fair value of the liability of foreign currency-sensitive financial instruments, which primarily represent forward foreign currency exchange contracts, would be increased by \$11.0 million compared with the fair value at December 31, 2022. 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, 2022.

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, 2022. 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 2022, 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.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this Item 10 of Part III will be included in the 2023 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. Information on the Company’s website is not incorporated by reference in, and does not form part of, this Annual Report on Form 10-K.

Item 11. EXECUTIVE COMPENSATION

Information required by this Item 11 of Part III will be included in the 2023 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 2023 Proxy Statement, which information is incorporated herein by reference.

Equity Compensation Plan Information

The following table sets forth information as of December 31, 2022 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))
	(a)	(b)	(c)
Class A Shares:			
Equity compensation plans approved by security holders	—	N/A	936,515
Equity compensation plans not approved by security holders	—	N/A	—
Total	—	N/A	936,515
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 2023 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 2023 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) (3) Listing of Exhibits — See the exhibit index beginning at page 30 of this Annual Report on Form 10-K.
- (b) The response to Item 15(b) is set forth beginning at page 30 of this Annual Report on Form 10-K.

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 incorporated by reference to Exhibit 4.3 to the Company's Annual Report on Form 10-K, filed by the Company on February 25, 2020, Commission File Number 000-54799.](#)

(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 10.1 to the Company's Quarterly Report on Form 10-Q, filed by the Company on April 29, 2015, Commission File Number 000-54799.](#)
- 10.7 [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.](#)

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- 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 [Tenth Amendment to Stockholders' Agreement, dated as of December 31, 2020, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholders 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 30 filed with Amendment No. 9 to the Statement on Schedule 13D, filed by the reporting persons named therein on February 12, 2021, Commission File Number 005-38001.](#)
- 10.13 [Eleventh Amendment to Stockholders' Agreement, dated as of December 7, 2021, by and among the Depository, Hyster-Yale Materials Handling, Inc., the new Participating Stockholders 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 4.15 to the Company's Registration Statement on Form S-8, dated February 1, 2022, Commission File Number 333-262448.](#)
- 10.14 [Twelfth Amendment to Stockholders' Agreement, dated as of December 12, 2022, 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 41 filed with Amendment No. 11 to the Statement on Schedule 13D, filed by the reporting persons named therein on February 14, 2023, Commission File Number 005-87003.](#)
- 10.15* [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.](#)
- 10.16* [Amendment No. 1 to the Hyster-Yale Group, Inc. Executive Excess Retirement Plan \(As Amended and Restated as of January 1, 2016\) is incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, dated April 30, 2020, Commission File Number 000-54799.](#)
- 10.17* [Hyster-Yale Materials Handling, Inc. 2020 Long-Term Equity Incentive Plan, is incorporated by reference to Appendix A to the Company's Definitive Proxy Statement on Form DEF 14A, filed by the Company on March 31, 2020, Commission File Number 000-54799.](#)
- 10.18* [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.](#)
- 10.19* [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.](#)
- 10.20* [Hyster-Yale Materials Handling, Inc. Non-Employee Directors' Equity Compensation Plan \(Amended and Restated Effective May 17, 2019\) is incorporated by reference to Exhibit 10.17 to the Company's Annual Report on Form 10-K, filed by the Company on February 25, 2020, Commission File Number 000-54799.](#)
- 10.21* [Hyster-Yale Materials Handling, Inc. and Subsidiaries Director Fee Policy \(Amended Effective as of January 1, 2022\) is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed by the Company on May 3, 2022, Commission File Number 000-54799.](#)
- 10.22* [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.](#)
- 10.23* [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.](#)
- 10.24* [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.](#)
- 10.25* [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.](#)
- 10.26* [Amendment No. 2 to the Hyster-Yale Group, Inc. Executive Excess Retirement Plan \(As Amended and Restated as of January 1, 2016\) is incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, dated January 21, 2021, Commission File Number 000-54799.](#)
- 10.27* [Offer Letter, dated August 1, 2022, between Scott A. Minder and Hyster-Yale Materials Handling, Inc. is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed by the Company on November 1, 2022, Commission File Number 000-54799.](#)
- 10.28 [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.](#)
- 10.29 [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.](#)
- 10.30 [Amendment to Third Amended and Restated Joint Venture and Shareholders Agreement between Wells Fargo Financial Leasing, Inc. and Hyster-Yale Group, Inc., dated December 19, 2022.](#)
- 10.31 [AS 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.](#)
- 10.32 [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.](#)
- 10.33 [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.](#)

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10.34	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.
10.35	Second Amended and Restated Loan, Security and Guaranty Agreement, dated as of June 24, 2021, among Hyster-Yale Materials Handling, Inc., Bolzoni Auramo, Inc. and Hyster-Yale Group, Inc., as U.S. Borrowers, Hyster-Yale Nederland B.V., as a Dutch Borrower, Hyster-Yale UK Limited, as a UK Borrower, 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, BOFA Securities, Inc. and CitiBank, N.A., as Joint Lead Arrangers and Joint Book Managers and CitiBank, N.A., as Syndication Agent is incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed by the Company on August 3, 2021, Commission File Number 000-54799.
10.36	Amended and Restated Term Loan Credit Agreement, dated as of May 28, 2021, among Hyster-Yale Group, Inc., as the Borrower, Hyster-Yale Materials Handling, Inc., as Holdings, Bank of America, N.A., as Administrative Agent, and the Other Lenders party thereto is incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed by the Company on August 3, 2021, Commission File Number 000-54799.
10.37	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.
10.38	Equity Transfer Agreement between Y-C HongKong Holding Co., Limited and Hyster-Yale Acquisition Holding LTD regarding Hyster-Yale Maximal Forklift (Zhejiang) Co., Ltd. dated May 26, 2021 is incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q, filed by the Company on August 3, 2021, 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 Edward T. Eliopoulos is attached hereto.
24.5	A copy of a power of attorney for John P. Jumper is attached hereto.
24.6	A copy of a power of attorney for Dennis W. LaBarre is attached hereto.
24.7	A copy of a power of attorney for H. Vincent Poor is attached hereto.
24.8	A copy of a power of attorney for Claiborne R. Rankin is attached hereto.
24.9	A copy of a power of attorney for Britton T. Taplin is attached hereto.
24.10	A copy of a power of attorney for David B. H. Williams is attached hereto.
24.11	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 Scott A. Minder 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 Scott A. Minder
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 Item 15(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/ Jennifer M. Langer

Jennifer M. Langer

Vice President, Controller and Chief Accounting Officer (principal accounting officer)

February 27, 2023

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. Chairman and Chief Executive Officer (principal executive officer), Director February 27, 2023
Alfred M. Rankin, Jr.

/s/ Scott A. Minder Senior Vice President, Chief Financial Officer and Treasurer (principal financial officer) February 27, 2023
Scott A. Minder

/s/ Jennifer M. Langer Vice President, Controller and Chief Accounting Officer (principal accounting officer) February 27, 2023
Jennifer M. Langer

* James B. Bemowski Director February 27, 2023
James B. Bemowski

* J.C. Butler, Jr. Director February 27, 2023
J.C. Butler, Jr.

* Carolyn Corvi Director February 27, 2023
Carolyn Corvi

* Edward T. Eliopoulos Director February 27, 2023
Edward T. Eliopoulos

* John P. Jumper Director February 27, 2023
John P. Jumper

* Dennis W. LaBarre Director February 27, 2023
Dennis W. LaBarre

* H. Vincent Poor Director February 27, 2023
H. Vincent Poor

* Claiborne R. Rankin Director February 27, 2023
Claiborne R. Rankin

* Britton T. Taplin Director February 27, 2023
Britton T. Taplin

* David B. H. Williams Director February 27, 2023
David B. H. Williams

* Eugene Wong Director February 27, 2023
Eugene Wong

* Scott A. Minder, 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/ Scott A. Minder February 27, 2023
Scott A. Minder, Attorney-in-Fact

ANNUAL REPORT ON FORM 10-K
ITEM 8 AND ITEM 15(a)(1)
FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA
LIST OF FINANCIAL STATEMENTS
YEAR ENDED DECEMBER 31, 2022
HYSTER-YALE MATERIALS HANDLING, INC.
CLEVELAND, OHIO

FORM 10-K

ITEM 15(a)(1)

HYSTER-YALE MATERIALS HANDLING, INC. AND SUBSIDIARIES

LIST OF FINANCIAL STATEMENTS

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

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm — For each of the three years in the period ended December 31, 2022	F-3
Report of Ernst & Young LLP, Independent Registered Public Accounting Firm on Internal Control over Financial Reporting — as of December 31, 2022	F-5
Consolidated Statements of Operations	F-6
Consolidated Statements of Comprehensive Income (Loss)	F-7
Consolidated Balance Sheets	F-8
Consolidated Statements of Cash Flows	F-9
Consolidated Statements of Equity	F-10
Notes to Consolidated Financial Statements	F-12

All 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.

Ernst & Young LLP [PCAOB ID: 42]

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 as of December 31, 2022 and 2021, 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, 2022, and the related notes 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 Hyster-Yale Materials Handling, Inc. and Subsidiaries (“the Company”) at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, 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, 2022, 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 27, 2023 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) relates 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 - Bolzoni

Description of the Matter At December 31, 2022, the Company's goodwill balance associated with Bolzoni was \$48.6 million. As discussed in Note 12, 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 2022. 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 and comparable market values for similar businesses. 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 was complex and highly judgmental due to the significant estimation required to determine the fair value of the Bolzoni reporting unit utilizing the discounted cash flow analysis. In particular, the fair value estimate was sensitive to significant assumptions utilized in the discounted cash flow analysis, 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 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 Bolzoni reporting unit, we performed audit procedures that included, among others, assessing the methodologies used and directly testing the significant assumptions and the underlying data used by the Company in its analyses, 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, guideline public companies in the same industry and strategic plans. 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 27, 2023

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' internal control over financial reporting as of December 31, 2022, 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, Hyster-Yale Materials Handling, Inc. and Subsidiaries (“the Company”) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, 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, 2022 and 2021, 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, 2022 and the related notes listed in the Index at Item 15(a) and our report dated February 27, 2023 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 27, 2023

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

	Year Ended December 31		
	2022	2021	2020
	(In millions, except per share data)		
Revenues	\$ 3,548.3	\$ 3,075.7	\$ 2,812.1
Cost of sales	3,114.4	2,712.3	2,346.7
Gross Profit	433.9	363.4	465.4
Operating Expenses			
Selling, general and administrative expenses	473.0	450.1	415.5
Impairment loss	—	65.6	—
	473.0	515.7	415.5
Operating Profit (Loss)	(39.1)	(152.3)	49.9
Other (income) expense			
Interest expense	28.4	15.5	13.7
Income from unconsolidated affiliates	(11.0)	(11.7)	(6.6)
Other, net	5.9	(1.2)	0.6
	23.3	2.6	7.7
Income (Loss) Before Income Taxes	(62.4)	(154.9)	42.2
Income tax provision	9.2	28.3	3.7
Net Income (Loss)	(71.6)	(183.2)	38.5
Net (income) loss attributable to noncontrolling interest	(1.5)	10.2	(1.4)
Net income attributable to redeemable noncontrolling interests	(0.5)	—	—
Accrued dividend to redeemable noncontrolling interests	(0.5)	—	—
Net Income (Loss) Attributable to Stockholders	\$ (74.1)	\$ (173.0)	\$ 37.1
Basic Earnings (Loss) per Share Attributable to Stockholders	\$ (4.38)	\$ (10.29)	\$ 2.21
Diluted Earnings (Loss) per Share Attributable to Stockholders	\$ (4.38)	\$ (10.29)	\$ 2.21

See Notes to Consolidated Financial Statements.

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

	Year Ended December 31		
	2022	2021	2020
	(In millions)		
Net Income (Loss)	\$ (71.6)	\$ (183.2)	\$ 38.5
Other comprehensive income (loss)			
Foreign currency translation adjustment	(39.3)	(40.1)	35.3
Current period cash flow hedging activity, net of \$0.7 tax expense in 2022, net of \$0.9 tax benefit in 2021 and net of \$7.3 tax expense in 2020	(40.0)	(38.8)	19.4
Reclassification of hedging activities into earnings, net of \$0.8 tax benefit in 2022, net of \$0.1 tax benefit in 2021 and net of \$4.0 tax expense in 2020	34.3	(5.7)	11.6
Current period pension adjustment, net of \$0.3 tax expense in 2022, net of \$0.1 tax expense in 2021 and net of \$3.2 tax benefit in 2020	(3.7)	9.8	(14.6)
Reclassification of pension into earnings, net of \$— tax benefit in 2022, net of \$0.1 tax benefit in 2021 and net of \$0.9 tax expense in 2020	4.8	5.6	3.9
Comprehensive Income (Loss)	\$ (115.5)	\$ (252.4)	\$ 94.1
Other comprehensive income (loss) attributable to noncontrolling interests			
Net (income) loss attributable to noncontrolling interest	(1.5)	10.2	(1.4)
Net income attributable to redeemable noncontrolling interests	(0.5)	—	—
Accrued dividend to noncontrolling interest	(0.5)	—	—
Foreign currency translation adjustment attributable to noncontrolling interests	2.8	(2.0)	(0.4)
Comprehensive Income (Loss) Attributable to Stockholders	\$ (115.2)	\$ (244.2)	\$ 92.3

See Notes to Consolidated Financial Statements.

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

	December 31	
	2022	2021
	(In millions, except share data)	
ASSETS		
Current Assets		
Cash and cash equivalents	\$ 59.0	\$ 65.5
Accounts receivable, net of allowances of \$7.2 in 2022 and \$6.0 in 2021	523.6	457.4
Inventories, net	799.5	781.0
Prepaid expenses and other	76.6	46.1
Total Current Assets	1,458.7	1,350.0
Property, Plant and Equipment, Net	310.0	330.5
Intangible Assets	42.7	50.7
Goodwill	51.3	56.5
Deferred Income Taxes	2.6	3.7
Investment in Unconsolidated Affiliates	59.4	71.7
Other Non-current Assets	101.5	107.0
Total Assets	\$ 2,026.2	\$ 1,970.1
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	\$ 585.8	\$ 517.0
Accounts payable, affiliates	21.6	24.4
Revolving credit facilities	137.1	165.3
Short-term debt and current maturities of long-term debt	148.8	91.5
Accrued payroll	64.4	57.1
Deferred revenue	139.8	49.7
Other current liabilities	245.4	199.6
Total Current Liabilities	1,342.9	1,104.6
Long-term Debt	267.0	261.7
Self-insurance Liabilities	33.5	33.5
Pension Obligations	6.2	6.2
Deferred Income Taxes	13.4	12.7
Other Long-term Liabilities	138.1	168.5
Total Liabilities	1,801.1	1,587.2
Temporary Equity		
Redeemable Noncontrolling Interest	14.2	—
Stockholders' Equity		
Common stock:		
Class A, par value \$0.01 per share, 13,154,918 shares outstanding (2021 - 12,994,106 shares outstanding)	0.1	0.1
Class B, par value \$0.01 per share, convertible into Class A on a one-for-one basis, 3,783,597 shares outstanding (2021 - 3,832,794 shares outstanding)	0.1	0.1
Capital in excess of par value	297.7	315.1
Treasury stock	—	(4.5)
Retained earnings	152.7	248.6
Accumulated other comprehensive loss	(246.2)	(202.3)
Total Stockholders' Equity	204.4	357.1
Noncontrolling Interest	6.5	25.8
Total Permanent Equity	210.9	382.9
Total Liabilities and Equity	\$ 2,026.2	\$ 1,970.1

See Notes to Consolidated Financial Statements.

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

	Year Ended December 31		
	2022	2021	2020
	(In millions)		
Operating Activities			
Net income (loss)	\$ (71.6)	\$ (183.2)	\$ 38.5
Adjustments to reconcile net income (loss) to net cash provided by (used for) operating activities:			
Depreciation and amortization	43.4	46.2	42.9
Amortization of deferred financing fees	1.4	3.1	1.7
Deferred income taxes	(0.1)	19.8	(2.5)
Goodwill impairment charges	—	55.6	—
Long-lived asset impairment charges	—	10.0	—
Gain on sale of assets	(0.2)	(0.4)	(1.5)
(Gain) loss on the sale of investments	3.7	(4.6)	—
Stock-based compensation	6.4	4.0	1.3
Dividends from unconsolidated affiliates	15.6	5.5	7.3
Other non-current liabilities	(20.1)	(1.4)	(13.8)
Other	22.5	(27.3)	22.1
Working capital changes:			
Accounts receivable	(89.5)	(54.6)	68.9
Inventories	(39.1)	(289.7)	66.6
Other current assets	(5.4)	(12.5)	(3.6)
Accounts payable	78.7	129.5	4.3
Other liabilities	94.9	46.5	(65.3)
Net cash provided by (used for) operating activities	40.6	(253.5)	166.9
Investing Activities			
Expenditures for property, plant and equipment	(28.8)	(44.3)	(51.7)
Purchase of noncontrolling interest	(8.4)	—	—
Proceeds from the sale of assets	1.3	4.1	8.0
Proceeds from the sale of investments	0.5	15.7	—
Net cash used for investing activities	(35.4)	(24.5)	(43.7)
Financing Activities			
Additions to long-term debt	135.0	119.6	72.2
Reductions of long-term debt	(97.6)	(62.0)	(83.7)
Net additions (reductions) to revolving credit agreements	(26.3)	165.4	(7.4)
Cash dividends paid	(21.8)	(21.6)	(21.3)
Cash dividends paid to noncontrolling interest	(0.2)	(0.2)	(0.3)
Financing fees paid	—	(7.6)	—
Other	—	—	(0.1)
Net cash provided by (used for) financing activities	(10.9)	193.6	(40.6)
Effect of exchange rate changes on cash	(0.8)	(1.5)	4.2
Cash and Cash Equivalents			
Increase (decrease) for the year	(6.5)	(85.9)	86.8
Balance at the beginning of the year	65.5	151.4	64.6
Balance at the end of the year	\$ 59.0	\$ 65.5	\$ 151.4

See Notes to Consolidated Financial Statements.

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

	Temporary Equity	Permanent Equity										
	Redeemable Noncontrolling Interest	Accumulated Other Comprehensive Income (Loss)										Total Permanent Equity
		Class A Common Stock	Class B Common Stock	Treasury Stock	Capital in Excess of Par Value	Retained Earnings	Foreign Currency Translation Adjustment	Deferred Gain (Loss) on Cash Flow Hedging	Pension Adjustment	Total Stockholders' Equity	Noncontrolling Interests	
Balance, December 31, 2021	\$ —	\$ 0.1	\$ 0.1	\$ (4.5)	\$ 315.1	\$ 248.6	\$ (97.7)	\$ (32.0)	\$ (72.6)	\$ 357.1	\$ 25.8	\$ 382.9
Stock-based compensation	—	—	—	6.4	—	—	—	—	—	6.4	—	6.4
Stock issued under stock compensation plans	—	—	—	4.5	(4.5)	—	—	—	—	—	—	—
Net income (loss)	0.5	—	—	—	—	(74.1)	—	—	—	(74.1)	1.5	(72.6)
Cash dividends	—	—	—	—	—	(21.8)	—	—	—	(21.8)	(0.2)	(22.0)
Accrued dividends	0.5	—	—	—	—	—	—	—	—	—	—	—
Current period other comprehensive income (loss)	—	—	—	—	—	—	(39.3)	(40.0)	(3.7)	(83.0)	—	(83.0)
Reclassification adjustment to net income (loss)	—	—	—	—	—	—	—	34.3	4.8	39.1	—	39.1
Purchase of noncontrolling interest	—	—	—	—	(12.8)	—	—	—	—	(12.8)	(11.1)	(23.9)
Reclassification from permanent equity to temporary equity	13.1	—	—	—	(6.5)	—	—	—	—	(6.5)	(6.6)	(13.1)
Foreign currency translation on noncontrolling interest	0.1	—	—	—	—	—	—	—	—	—	(2.9)	(2.9)
Balance, December 31, 2022	\$ 14.2	\$ 0.1	\$ 0.1	\$ —	\$ 297.7	\$ 152.7	\$ (137.0)	\$ (37.7)	\$ (71.5)	\$ 204.4	\$ 6.5	\$ 210.9

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, Brazil, the Philippines, Italy, Japan and Vietnam. The sale of service parts represents approximately 15%, 15% and 14% of total revenues as reported in 2022, 2021 and 2020, respectively.

As of December 31, 2022, the Company owned a 90% majority interest in Hyster-Yale Maximal Forklift (Zhejiang) Co., Ltd. ("Hyster-Yale Maximal"), 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. During 2021, the Company signed an Equity Transfer Agreement ("ETA") with Y-C Hongkong Holding Co., Limited ("HK Holding Co"). In June 2022, the Company purchased 15% of the equity interest of Hyster-Yale Maximal from HK Holding Co for an aggregate purchase price of \$25.2 million, which will be paid in annual installments of \$8.4 million beginning June 2022 through June 2024. The Company has an option to purchase HK Holding Co's remaining 10% interest in Hyster-Yale Maximal at any time prior to June 8, 2056 for \$16.8 million. If this option is exercised, the Company will own 100% of the equity interest of Hyster-Yale Maximal.

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 also produces components for lift truck manufacturers. 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.

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.

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 or unwillingness of customers to make required payments. These allowances are based on historical experience, existing economic trends and both recent trends of specific 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.

Changes in the Company's allowance for doubtful accounts, including write-offs, are as follows:

	2022	2021
Balance at January 1	\$ 10.3	\$ 10.4
Charged to costs and expenses	3.1	0.7
Write-offs	(0.5)	(0.1)
Recoveries	(1.0)	(0.4)
Foreign currency effect	(0.7)	(0.3)
Balance at December 31	\$ 11.2	\$ 10.3

allowance for doubtful accounts balance includes allowance of receivables classified as long-term of \$4.0 million and \$4.3 million in 2022 and 2021, respectively.

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 \$8.6 million, \$9.0 million and \$7.6 million in 2022, 2021 and 2020, respectively.

Research and 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 \$100.7 million, \$108.3 million and \$100.5 million in 2022, 2021 and 2020, 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. 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 5)
Income taxes	Income Taxes (Note 6)
Derivatives and hedging activities	Financial Instruments and Derivative Financial Instruments (Note 8)
Fair value of financial instruments	Financial Instruments and Derivative Financial Instruments (Note 8) and Retirement Benefit Plans (Note 9)
Pension	Retirement Benefit Plans (Note 9)
Inventories	Inventories (Note 10)
Property, plant and equipment	Property, Plant and Equipment, Net (Note 11)
Impairment or disposal of long-lived assets	Property, Plant and Equipment, Net (Note 11)
Goodwill and intangible assets	Goodwill and Intangible Assets (Note 12)
Contingencies	Contingencies (Note 16)

Recently Issued Accounting Standards

In 2022, the Company did not adopt any recent accounting standard updates ("ASU") which had a material effect on the Company's financial position, results of operations, cash flows or related disclosures.

The following table provides a brief description of ASUs not yet adopted:

Standard	Description	Required Date of Adoption	Effect on the financial statements or other significant matters
ASU 2020-04 and ASU 2022-06, Reference Rate Reform (Topic 848)	The guidance provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships, and other transactions affected by reference rate reform if certain criteria are met.	From the date of issuance through December 31, 2024	The Company does not expect the guidance to have a material 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 15 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. 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 years ended December 31, 2022 and 2021.

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, 2022							
Lift truck business							
	Americas	EMEA	JAPIC	Bolzoni	Nuvera	Elims	Total
Dealer sales	\$ 1,234.3	\$ 569.0	\$ 220.2	\$ —	\$ —	\$ —	\$ 2,023.5
Direct customer sales	461.6	13.2	—	—	—	—	474.8
Aftermarket sales	609.8	102.6	29.1	—	—	—	741.5
Other	99.7	19.4	0.7	355.7	3.4	(170.4)	308.5
Total Revenues	\$ 2,405.4	\$ 704.2	\$ 250.0	\$ 355.7	\$ 3.4	\$ (170.4)	\$ 3,548.3

YEAR ENDED DECEMBER 31, 2021							
Lift truck business							
	Americas	EMEA	JAPIC	Bolzoni	Nuvera	Elims	Total
Dealer sales	\$ 935.4	\$ 540.7	\$ 202.7	\$ —	\$ —	\$ —	\$ 1,678.8
Direct customer sales	452.5	8.7	—	—	—	—	461.2
Aftermarket sales	478.5	106.7	30.2	—	—	—	615.4
Other	118.2	22.8	1.0	347.8	0.7	(170.2)	320.3
Total Revenues	\$ 1,984.6	\$ 678.9	\$ 233.9	\$ 347.8	\$ 0.7	\$ (170.2)	\$ 3,075.7

YEAR ENDED DECEMBER 31, 2020							
Lift truck business							
	Americas	EMEA	JAPIC	Bolzoni	Nuvera	Elims	Total
Dealer sales	\$ 882.9	\$ 472.0	\$ 161.8	\$ —	\$ —	\$ —	\$ 1,516.7
Direct customer sales	497.3	9.2	—	—	—	—	506.5
Aftermarket sales	397.4	88.8	29.9	—	—	—	516.1
Other	113.6	18.6	1.4	283.7	3.9	(148.4)	272.8
Total Revenues	\$ 1,891.2	\$ 588.6	\$ 193.1	\$ 283.7	\$ 3.9	\$ (148.4)	\$ 2,812.1

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 development funding from third-party agreements and the sale of fuel cell stacks and engines to third parties and the lift truck business. 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.

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. The increase in customer deposits and billings relates mainly to down payments on customer orders. Changes in the Company's deferred revenue are as follows:

	2022	2021
Balance, January 1	\$ 76.2	\$ 70.5
Customer deposits and billings	158.5	38.0
Revenue recognized	(80.9)	(32.0)
Foreign currency effect	—	(0.3)
Balance, December 31	<u>\$ 153.8</u>	<u>\$ 76.2</u>

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 the corporate headquarters. EMEA includes operations in Europe, the Middle East and Africa. JAPIC includes operations in the Asia and Pacific regions, including China, as well as the equity earnings of SN operations. 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 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.

Operating profit is the measure of segment profit or loss. 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.

	2022	2021	2020
Revenues from external customers			
Americas	\$ 2,405.4	\$ 1,984.6	\$ 1,891.2
EMEA	704.2	678.9	588.6
JAPIC	250.0	233.9	193.1
Lift truck business	3,359.6	2,897.4	2,672.9
Bolzoni	355.7	347.8	283.7
Nuvera	3.4	0.7	3.9
Eliminations	(170.4)	(170.2)	(148.4)
Total	<u>\$ 3,548.3</u>	<u>\$ 3,075.7</u>	<u>\$ 2,812.1</u>
Operating profit (loss)			
Americas	\$ 46.8	\$ (19.7)	\$ 102.1
EMEA	(46.6)	0.3	3.1
JAPIC	(10.6)	(67.5)	(19.6)
Lift truck business	(10.4)	(86.9)	85.6
Bolzoni	6.2	(1.8)	1.0
Nuvera	(34.3)	(62.3)	(36.1)
Eliminations	(0.6)	(1.3)	(0.6)
Total	<u>\$ (39.1)</u>	<u>\$ (152.3)</u>	<u>\$ 49.9</u>

	2022	2021	2020
Total assets			
Americas	\$ 1,700.0	\$ 1,558.2	\$ 1,367.1
EMEA	811.0	843.7	807.9
JAPIC	339.5	329.3	343.2
Eliminations	(693.2)	(682.8)	(642.9)
Lift truck business	2,157.3	2,048.4	1,875.3
Bolzoni	315.2	323.8	300.4
Nuvera	18.9	16.0	57.3
Eliminations	(465.2)	(418.1)	(373.5)
Total	\$ 2,026.2	\$ 1,970.1	\$ 1,859.5
Depreciation and amortization			
Americas	\$ 15.8	\$ 17.3	\$ 17.1
EMEA	7.8	8.1	6.8
JAPIC	7.4	6.9	6.2
Lift truck business	31.0	32.3	30.1
Bolzoni	11.7	12.7	11.7
Nuvera	0.7	1.2	1.1
Total	\$ 43.4	\$ 46.2	\$ 42.9
Capital expenditures			
Americas	\$ 5.1	\$ 16.1	\$ 27.4
EMEA	4.9	10.7	14.2
JAPIC	10.3	3.8	2.6
Lift truck business	20.3	30.6	44.2
Bolzoni	5.5	10.4	5.3
Nuvera	3.0	3.3	2.2
Total	\$ 28.8	\$ 44.3	\$ 51.7

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
2022				
Revenues from unaffiliated customers, based on the customers' location	\$ 1,973.8	\$ 886.5	\$ 688.0	\$ 3,548.3
Long-lived tangible assets	\$ 164.3	\$ 97.7	\$ 107.4	\$ 369.4
2021				
Revenues from unaffiliated customers, based on the customers' location	\$ 1,671.1	\$ 866.1	\$ 538.5	\$ 3,075.7
Long-lived tangible assets	\$ 185.3	\$ 97.4	\$ 119.5	\$ 402.2
2020				
Revenues from unaffiliated customers, based on the customers' location	\$ 1,640.8	\$ 736.7	\$ 434.6	\$ 2,812.1
Long-lived tangible assets	\$ 198.4	\$ 102.8	\$ 119.4	\$ 420.6

NOTE 5—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, 2022 was 125 million shares and 35 million shares, respectively. No treasury shares of either class were outstanding at December 31, 2022. Treasury shares of Class A common stock totaling 61,207 at December 31, 2021 were 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 220,114 and 64,058 shares related to the years ended December 31, 2022 and 2021, respectively. There were no shares issued related to 2020. After the issuance of these shares, there will be 716,398 shares of Class A common stock available for issuance under these plans. Compensation expense related to these share awards was \$5.5 million (\$5.5 million net of tax) and \$2.6 million (\$2.0 million net of tax) for the years ended 2022 and 2021, 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 year ended December 31, 2022, \$96,000 of each non-employee director's retainer of \$200,000 was paid in restricted shares of Class A common stock. For the year ended December 31, 2021, \$127,000 of \$188,000 was paid in restricted shares of Class A common stock. The non-employee directors' retainer was reduced by 10% from May through December of 2020. For the year ended December 31, 2020, \$124,000 of \$184,000 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 29,898, 22,176 and 28,323 shares related to the years ended December 31, 2022, 2021 and 2020, 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 1,075, 1,168 and 1,610 in 2022, 2021 and 2020, respectively. After the issuance of these shares, there were 3 shares of Class A common stock available for issuance under this directors' plan. Compensation expense related to these awards was \$0.9 million (\$0.9 million net of tax), \$1.4 million (\$1.1 million net of tax) and \$1.3 million (\$1.0 million net of tax) for the years ended December 31, 2022, 2021 and 2020, 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:

	2022	2021	2020
Basic weighted average shares outstanding	16.901	16.818	16.775
Dilutive effect of restricted stock awards	—	—	0.024
Diluted weighted average shares outstanding	16.901	16.818	16.799
Basic earnings per share	\$ (4.38)	\$ (10.29)	\$ 2.21
Diluted earnings per share	\$ (4.38)	\$ (10.29)	\$ 2.21
Cash dividends per share	\$ 1.2900	\$ 1.2850	\$ 1.2700

The table above excludes 0.223 million and 0.074 million of anti-dilutive restricted stock awards related to 2022 and 2021, respectively. Restricted stock awards for 2022 are expected to be issued in 2023.

NOTE 6—Income Taxes

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

	2022	2021	2020
Income (loss) before income taxes			
U.S.	\$ (40.1)	\$ (147.9)	\$ (0.6)
Non-U.S.	(22.3)	(7.0)	42.8
	<u>\$ (62.4)</u>	<u>\$ (154.9)</u>	<u>\$ 42.2</u>
Income tax provision			
Current tax provision (benefit):			
Federal	\$ 0.6	\$ (1.2)	\$ 0.4
State	0.5	1.1	0.8
Non-U.S.	8.2	8.6	5.0
Total current	<u>\$ 9.3</u>	<u>\$ 8.5</u>	<u>\$ 6.2</u>
Deferred tax provision (benefit):			
Federal	\$ 1.9	\$ 14.1	\$ (2.6)
State	0.3	3.8	(0.6)
Non-U.S.	(2.3)	1.9	0.7
Total deferred	<u>\$ (0.1)</u>	<u>\$ 19.8</u>	<u>\$ (2.5)</u>
	<u>\$ 9.2</u>	<u>\$ 28.3</u>	<u>\$ 3.7</u>

The Company made income tax payments of \$13.1 million, \$11.7 million and \$15.3 million during 2022, 2021 and 2020, respectively. The Company received income tax refunds of \$2.3 million, \$0.3 million and \$0.2 million during 2022, 2021 and 2020, respectively.

A reconciliation of the U.S. federal statutory rate to the reported income tax rate for the year ended December 31 is as follows:

	2022	2021	2020
Income (loss) before income taxes	\$ (62.4)	\$ (154.9)	\$ 42.2
Statutory taxes at 21%	\$ (13.1)	\$ (32.5)	\$ 8.9
Valuation allowance	27.5	58.6	2.9
Non-U.S. rate differences	5.4	10.0	(0.3)
Nondeductible compensation	1.4	0.4	—
Base-erosion and anti-abuse tax	1.4	(0.8)	(0.4)
Unremitted non-U.S. earnings	0.1	1.2	(0.7)
Tax controversy resolution	(4.7)	(4.5)	(5.8)
Global intangible low-taxed income	(4.6)	5.0	1.8
Federal income tax credits	(1.4)	(2.6)	(2.6)
Equity interest earnings	(1.4)	(1.8)	(1.0)
State income taxes	(1.3)	(5.3)	0.1
Other	(0.1)	0.6	0.8
Income tax provision	<u>\$ 9.2</u>	<u>\$ 28.3</u>	<u>\$ 3.7</u>
Reported income tax rate	<u>(14.7)%</u>	<u>(18.3)%</u>	<u>8.8 %</u>

The Company has determined that it is impracticable to calculate the amount of deferred taxes that would be applicable to all of its investments in non-U.S. subsidiaries. However, the Company has provided for anticipated taxes on unremitted non-U.S. earnings for which no reinvestment plan has been identified and that may be repatriated in the foreseeable future.

The Company has elected to account for the global intangible low-taxed income ("GILTI") tax in the period in which it is incurred, and therefore has not provided any deferred tax amounts for GILTI.

Beginning in 2022, the Tax Cuts and Jobs Act of 2017 (the "Tax Reform Act") eliminated the option to deduct research and development expenditures immediately in the year incurred and requires U.S. taxpayers to amortize such expenditures over five

to fifteen years depending upon whether the activities are performed in the U.S. or outside of the U.S. This change will have a material impact on the Company's future cash payments for income taxes. If this legislation is not modified or repealed, the impact will continue over the fifteen year maximum amortization period, but will decrease each year until the end of the fifteen year deferral period.

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:

	December 31	
	2022	2021
Deferred tax assets		
Tax attribute carryforwards	\$ 62.5	\$ 53.7
Research and development capitalization	32.5	7.8
Accrued expenses and reserves	17.3	19.9
Product warranties	9.7	12.1
Accrued product liability	6.7	6.7
Other employee benefits	6.5	6.1
Inventories	1.8	5.1
Other	2.2	2.3
Total deferred tax assets	<u>139.2</u>	<u>113.7</u>
Less: Valuation allowance	<u>121.7</u>	<u>94.4</u>
	17.5	19.3
Deferred tax liabilities		
Depreciation and amortization	23.8	25.4
Unremitted earnings	2.3	1.2
Accrued pension benefits	2.2	1.7
Total deferred tax liabilities	<u>28.3</u>	<u>28.3</u>
Net deferred tax asset (liability)	<u>\$ (10.8)</u>	<u>\$ (9.0)</u>

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, 2022		
	Net deferred tax asset	Valuation allowance	Carryforwards expire during:
Non-U.S. net operating loss	\$ 26.3	\$ 24.2	2023 - Indefinite
U.S. net operating loss	17.2	16.4	Indefinite
Non-U.S. capital losses	7.3	7.3	Indefinite
State net operating losses and credits	6.7	6.6	2023 - Indefinite
Disallowed interest and other	5.7	5.7	2026 - Indefinite
Research and development credit	1.3	1.3	2041 - 2042
Less: Unrecognized tax benefits	<u>(2.0)</u>	—	
Total	<u>\$ 62.5</u>	<u>\$ 61.5</u>	

	December 31, 2021		
	Net deferred tax asset	Valuation allowance	Carryforwards expire during:
U.S. net operating loss	\$ 18.1	\$ 17.7	Indefinite
Non-U.S. net operating loss	17.4	14.6	2022 - Indefinite
State net operating losses and credits	8.5	8.1	2022 - Indefinite
Non-U.S. capital losses	7.5	7.5	2022 - Indefinite
Disallowed interest and other	3.0	3.0	2026 - Indefinite
Research and development credit	1.9	0.2	2041
Less: Unrecognized tax benefits	(2.7)	—	
Total	\$ 53.7	\$ 51.1	

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. 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 Australia, Brazil, China and the United Kingdom comprise a substantial portion of the non-U.S. net operating loss deferred tax assets. The Australian, Brazilian and United Kingdom net operating losses do not expire under local law, while Chinese losses expire after five years.

During 2021, the Company recognized a tax charge of \$24.8 million, for the establishment of a valuation allowance against the beginning of the year balance of the Company's U.S. and United Kingdom deferred tax assets, excluding the portion of assets available to be carried back to the prior tax year. Based upon a review of the Company's operations, including cumulative U.S. pretax losses, lack of available tax planning strategies and declining forecasts due to supply and logistics constraints, the evidence available no longer supported a more likely than not standard for realization of these deferred tax assets. Although the Company projected earnings over the longer term for these operations, due to the cumulative losses such longer-term forecasts were not sufficient evidence to support the future utilization of deferred tax assets. Additionally, \$32.5 million of valuation allowance expense, related to these operations, was provided against deferred tax assets generated in 2021.

During 2022 and 2021, the valuation allowance provided against deferred tax assets increased by \$27.3 million and \$66.2 million, respectively. The change in the total valuation allowance in 2022 and 2021 included a net increase in tax expense of \$27.4 million and \$58.6 million, respectively, and a net decrease of \$0.1 million and a net increase of \$7.6 million in 2022 and 2021, respectively, recorded directly in equity.

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, 2022, the Company had gross net operating loss carryforwards in the U.S. of \$82.1 million, U.S. state jurisdictions of \$72.7 million and non-U.S. jurisdictions of \$97.4 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, 2022, 2021 and 2020. Approximately \$5.4 million, \$8.2 million and \$10.7 million of these amounts as of December 31, 2022, 2021 and 2020, respectively, relate to permanent items that, if recognized, would impact the reported income tax rate. In 2020, this amount differed from the gross unrecognized tax benefit 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.

	2022	2021	2020
Balance at January 1	\$ 8.2	\$ 10.8	\$ 13.6
Additions based on tax positions related to the current year	0.4	0.7	0.3
Additions for tax positions of prior years	0.2	1.2	0.1
Reductions due to settlements with taxing authorities and the lapse of the applicable statute of limitations	(3.1)	(4.3)	(3.9)
Other changes in unrecognized tax benefits including foreign currency translation adjustments	(0.3)	(0.2)	0.7
Balance at December 31	\$ 5.4	\$ 8.2	\$ 10.8

The Company records interest and penalties on uncertain tax positions as a component of the income tax provision. The Company recorded a net decrease of \$2.2 million, \$2.1 million and \$2.3 million during 2022, 2021 and 2020, respectively, in

interest and penalties. As a result of foreign currency translation into U.S. dollars, the total amount of interest and penalties decreased by \$0.3 million during 2022, and increased by \$0.2 million and \$0.4 million during 2021 and 2020, respectively. The total amount of interest and penalties accrued was \$2.3 million, \$4.8 million and \$6.7 million as of December 31, 2022, 2021 and 2020, 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, including interest and penalties, within the next twelve months up to \$3.5 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 \$2.2 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. In addition, in certain circumstances where the Company is contesting an assessment and believes it has a strong probability of success, no accrual has been provided. 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 2019 have been settled with the Internal Revenue Service or otherwise have essentially closed under the applicable statute of limitations. However, the Company has also filed a protective claim for 2017 in order to preserve its right to a future refund pending the favorable resolution of certain court decisions. 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.

NOTE 7—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
	2022	2021	2020	
Gain (loss) on cash flow hedges:				
Interest rate contracts	\$ 1.2	\$ 3.2	\$ 1.9	Interest expense
Foreign exchange contracts	(34.7)	2.6	(17.5)	Cost of sales
Total before tax	(33.5)	5.8	(15.6)	Income (loss) before income taxes
Tax expense (benefit)	(0.8)	(0.1)	4.0	Income tax provision
Net of tax	\$ (34.3)	\$ 5.7	\$ (11.6)	Net income (loss)
Amortization of defined benefit pension items:				
Actuarial loss	\$ (4.7)	\$ (5.4)	\$ (4.7)	Other, net
Prior service (cost) credit	(0.1)	(0.1)	(0.1)	Other, net
Total before tax	(4.8)	(5.5)	(4.8)	Income (loss) before income taxes
Tax expense (benefit)	—	(0.1)	0.9	Income tax provision
Net of tax	\$ (4.8)	\$ (5.6)	\$ (3.9)	Net income (loss)
Total reclassifications for the period	\$ (39.1)	\$ 0.1	\$ (15.5)	

NOTE 8—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, 2022, the total carrying value and total fair value of revolving credit agreements and long-term debt, excluding finance leases, was \$523.3 million and \$501.1

million, respectively. At December 31, 2021, the total carrying value and total fair value of revolving credit agreements and long-term debt, excluding finance leases, was \$490.3 million and \$486.4 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, and in certain circumstances may 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 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 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 the associated variable rate financings are predominately based upon the one-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 unaudited condensed 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.

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 \$0.8 billion at December 31, 2022, primarily denominated in euros, Japanese yen, U.S. dollars, Chinese renminbi, British pounds, Mexican pesos, Swedish kroner and Australian dollars. The Company held forward foreign currency exchange contracts with total notional amounts of \$1.1 billion at December 31, 2021, primarily denominated in euros, Japanese yen, U.S. dollars, Chinese renminbi, British pounds, Mexican pesos, Swedish kroner and Australian dollars. The fair value of these contracts approximated a net liability of \$43.5 million and \$26.7 million at December 31, 2022 and 2021, respectively.

For the years ended December 31, 2022 and 2021, 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, 2022, \$33.4 million of the amount of net deferred loss included in OCI at December 31, 2022 is expected to be reclassified as expense into the Consolidated Statements of Operations over the next twelve months, as the transactions occur.

Interest Rate Derivatives: The following table summarizes the notional amounts, related rates, excluding spreads, and remaining terms of interest rate swap agreements at December 31, 2022 and 2021:

Notional Amount		Average Fixed Rate		Term at December 31, 2022
December 31 2022	December 31 2021	December 31 2022	December 31 2021	
\$ 180.0	\$ 180.0	1.68 %	1.68 %	Extending to May 2027
22.4	16.0	0.18 %	(0.14)%	Extending to May 2027

The fair value of all interest rate swap agreements was a net asset of \$16.1 million and a net liability \$3.2 million at December 31, 2022 and 2021, 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, 2022, \$5.8 million of the net deferred gain included in OCI is expected to be reclassified as income 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	2022	2021	Balance sheet location	2022	2021
Derivatives designated as hedging instruments						
Cash Flow Hedges						
Interest rate swap agreements						
Current	Prepaid expenses and other	\$ 5.9	\$ —	Prepaid expenses and other	\$ —	\$ —
Current	Other current liabilities	—	0.3	Other current liabilities	—	2.2
Long-term	Other non-current assets	10.2	0.1	Other non-current assets	—	0.1
Long-term	Other long-term liabilities	—	0.6	Other long-term liabilities	—	1.9
Foreign currency exchange contracts						
Current	Other current liabilities	2.6	3.6	Other current liabilities	32.1	17.0
Long-Term	Other non-current assets	0.7	—	Other non-current assets	0.3	—
	Other long-term liabilities	1.0	1.0	Other long-term liabilities	17.3	13.2
Total derivatives designated as hedging instruments		\$ 20.4	\$ 5.6		\$ 49.7	\$ 34.4
Derivatives not designated as hedging instruments						
Cash Flow Hedges						
Foreign currency exchange contracts						
Current	Other current liabilities	\$ 4.9	\$ 1.1	Other current liabilities	\$ 3.0	\$ 2.2
Total derivatives not designated as hedging instruments		\$ 4.9	\$ 1.1		\$ 3.0	\$ 2.2
Total derivatives		\$ 25.3	\$ 6.7		\$ 52.7	\$ 36.6

The following table summarizes the offsetting of the fair value of derivative instruments on a gross basis by counterparty at December 31, 2022 and 2021 as recorded in the Consolidated Balance Sheets:

	Derivative Assets as of December 31, 2022				Derivative Liabilities as of December 31, 2022			
	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	\$ 16.1	\$ —	\$ 16.1	\$ 16.1	\$ —	\$ —	\$ —	\$ —
Foreign currency exchange contracts	0.4	(0.4)	—	—	43.9	(0.4)	43.5	43.5
Total derivatives	\$ 16.5	\$ (0.4)	\$ 16.1	\$ 16.1	\$ 43.9	\$ (0.4)	\$ 43.5	\$ 43.5

	Derivative Assets as of December 31, 2021				Derivative Liabilities as of December 31, 2021			
	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	\$ —	\$ —	\$ —	\$ —	\$ 3.2	\$ —	\$ 3.2	\$ 3.2
Foreign currency exchange contracts	—	—	—	—	26.7	—	26.7	26.7
Total derivatives	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 29.9</u>	<u>\$ —</u>	<u>\$ 29.9</u>	<u>\$ 29.9</u>

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)		
	2022	2021	2020		2022	2021	2020
Cash Flow Hedges							
Interest rate swap agreements	\$ 21.9	\$ 5.8	\$ (1.0)	Interest expense	\$ 1.2	\$ 3.2	\$ 1.9
Foreign currency exchange contracts	(61.2)	(45.6)	27.7	Cost of sales	(34.7)	2.6	(17.5)
	<u>\$ (39.3)</u>	<u>\$ (39.8)</u>	<u>\$ 26.7</u>		<u>\$ (33.5)</u>	<u>\$ 5.8</u>	<u>\$ (15.6)</u>
Derivatives Not Designated as Hedging Instruments				Location of Gain or (Loss) Recognized in Income on Derivative			
Cash flow hedges							
Foreign currency exchange contracts				Cost of sales	\$ (32.5)	\$ (6.9)	\$ 4.5
Total					<u>\$ (32.5)</u>	<u>\$ (6.9)</u>	<u>\$ 4.5</u>

NOTE 9—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.

During 2022, 2021 and 2020, the Company recognized a settlement loss of \$1.8 million, \$1.1 million and \$1.2 million, respectively, resulting from lump-sum distributions exceeding the total projected interest cost for the plan year for its U.S. pension plan.

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

	2022	2021	2020
United States Plans			
Weighted average discount rates	5.36%	2.58%	2.09%
Expected long-term rate of return on assets	5.50%	5.50%	7.00%
Cash balance interest crediting rate	1.39%	3.50%	3.50%
Non-U.S. Plans			
Weighted average discount rates	3.60%-4.80%	1.00%-1.30%	0.50%-1.30%
Rate of increase in compensation levels	2.80%-3.00%	2.45%-2.50%	1.00%-2.50%
Expected long-term rate of return on assets	3.60%-4.50%	1.00%-4.50%	0.50%-6.00%

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:

	2022	2021	2020
United States Plans			
Interest cost	\$ 1.9	\$ 1.5	\$ 1.9
Expected return on plan assets	(3.3)	(4.5)	(4.7)
Amortization of actuarial loss	1.9	2.0	2.1
Settlements	1.8	1.1	1.2
Net periodic pension expense	\$ 2.3	\$ 0.1	\$ 0.5
Non-U.S. Plans			
Service cost	\$ 0.2	\$ 0.3	\$ 0.2
Interest cost	3.1	2.6	3.1
Expected return on plan assets	(7.4)	(10.5)	(10.9)
Amortization of actuarial loss	2.8	3.5	2.6
Amortization of prior service cost	0.1	0.1	0.1
Net periodic pension benefit	\$ (1.2)	\$ (4.0)	\$ (4.9)

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:

	2022	2021	2020
United States Plans			
Current year actuarial loss	\$ 4.5	\$ 0.2	\$ 0.7
Amortization of actuarial loss	(1.9)	(2.0)	(2.1)
Settlements	(1.8)	(1.1)	(1.2)
Total recognized in other comprehensive income (loss)	\$ 0.8	\$ (2.9)	\$ (2.6)
Non-U.S. Plans			
Current year actuarial (gain) loss	\$ 1.0	\$ (8.9)	\$ 18.3
Amortization of actuarial loss	(2.8)	(3.5)	(2.6)
Amortization of prior service cost	(0.1)	(0.1)	(0.1)
Total recognized in other comprehensive income (loss)	\$ (1.9)	\$ (12.5)	\$ 15.6

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:

	2022		2021	
	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	\$ 67.5	\$ 197.8	\$ 70.0	\$ 213.3
Service cost	—	0.2	—	0.3
Interest cost	1.9	3.1	1.5	2.6
Actuarial (gain) loss	(12.3)	(58.8)	2.7	(6.8)
Benefits paid	(4.4)	(7.0)	(4.4)	(8.3)
Employee contributions	—	0.1	—	0.1
Lump sum payments	(2.6)	—	(2.3)	—
Foreign currency exchange rate changes	—	(18.4)	—	(3.4)
Projected benefit obligation at end of year	\$ 50.1	\$ 117.0	\$ 67.5	\$ 197.8
Accumulated benefit obligation at end of year	\$ 50.1	\$ 116.6	\$ 67.5	\$ 196.9
Change in plan assets				
Fair value of plan assets at beginning of year	\$ 69.0	\$ 202.7	\$ 68.6	\$ 197.9
Actual return on plan assets	(13.5)	(52.1)	7.1	12.9
Employer contributions	—	2.4	—	3.5
Employee contributions	—	0.1	—	0.1
Benefits paid	(4.4)	(7.0)	(4.4)	(8.3)
Settlements	(2.6)	—	(2.3)	—
Foreign currency exchange rate changes	—	(19.8)	—	(3.4)
Fair value of plan assets at end of year	\$ 48.5	\$ 126.3	\$ 69.0	\$ 202.7
Funded status at end of year	\$ (1.6)	\$ 9.3	\$ 1.5	\$ 4.9
Amounts recognized in the consolidated balance sheets consist of:				
Noncurrent assets	\$ —	\$ 11.9	\$ 1.5	\$ 8.4
Noncurrent liabilities	(1.6)	(2.6)	—	(3.5)
	\$ (1.6)	\$ 9.3	\$ 1.5	\$ 4.9
Components of accumulated other comprehensive income (loss) consist of:				
Actuarial loss	\$ 32.6	\$ 56.5	\$ 31.8	\$ 58.3
Prior service cost	—	1.4	—	1.5
Deferred taxes	(8.3)	(13.0)	(8.3)	(12.7)
Foreign currency translation adjustment	—	2.3	—	2.0
	\$ 24.3	\$ 47.2	\$ 23.5	\$ 49.1

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.

In 2023, the Company expects to contribute \$1.4 million to its non-U.S. pension plans. The Company does not expect to contribute to its U.S. pension plan in 2023.

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
2023	\$ 5.7	\$ 7.0
2024	5.4	7.1
2025	5.1	7.2
2026	4.7	7.5
2027	4.4	9.8
2027 - 2031	18.7	41.8
	\$ 44.0	\$ 80.4

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 the U.K. pension plan is 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.

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:

	2022 Actual Allocation	2021 Actual Allocation	Target Allocation
U.S. equity securities	27.8%	27.8%	25%
Non-U.S. equity securities	11.9%	11.8%	15%
Fixed income securities	59.5%	59.6%	60%
Money market	0.8%	0.8%	—%

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

	2022 Actual Allocation	2021 Actual Allocation	Target Allocation
U.K. equity securities	3.7%	3.4%	5%
Non-U.K. equity securities	36.3%	37.2%	35%
Fixed income securities	59.3%	58.8%	60%
Money market	0.7%	0.6%	—%

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 plan 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	
	2022	2021	2022	2021
U.S. equity securities	\$ 13.4	\$ 19.2	\$ 14.8	\$ 24.6
U.K. equity securities	—	—	4.3	6.4
Non-U.S., non-U.K. equity securities	5.8	8.1	27.4	44.9
Fixed income securities	28.9	41.1	79.0	125.7
Money market	0.4	0.6	0.8	1.1
Total	\$ 48.5	\$ 69.0	\$ 126.3	\$ 202.7

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 \$21.0 million, \$17.1 million and \$10.0 million in 2022, 2021 and 2020, respectively. Company contributions to these plans were suspended from May through December of 2020.

NOTE 10—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, 2022 and 2021, 52% and 51%, respectively, of total inventories were determined using the LIFO method, which consists primarily of manufactured inventories, including service parts for the lift truck business 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.

During 2021, Nuvera reduced its inventory by \$16.1 million to its estimated net realizable value, which is recorded in “Cost of Sales” in the Consolidated Statements of Operations. Refer to Note 11 for further discussion of the factors related to this adjustment.

Inventories are summarized as follows:

	December 31	
	2022	2021
Finished goods and service parts	\$ 335.8	\$ 321.6
Work in process	36.0	32.9
Raw materials	522.1	509.9
Total manufactured inventories	893.9	864.4
LIFO reserve	(94.4)	(83.4)
Total inventory	\$ 799.5	\$ 781.0

NOTE 11—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.

In connection with the preparation of the financial statements during 2021, the Company identified indicators of impairment primarily related to the unexpected level of significant, on-going pandemic-related and other global supply chain constraints, component shortages, shipping container availability constraints and higher freight costs, as well as significant material cost inflation resulting from the accelerated pace of the market recovery, all of which had negatively impacted the Company. In addition, the effects of the COVID-19 pandemic, including border closures, halted Nuvera's progress on certain research and development agreements that were entered into prior to the start of the pandemic. In anticipation of fulfilling these agreements, Nuvera made significant investments in manufacturing and equipment expansion, as well as increased inventory levels. As a result, it was determined that carrying value of the Nuvera fixed assets exceeded the undiscounted cash flows from the assets and the carrying value of Nuvera's fixed assets exceeded the fair value by \$10.0 million. The impairment charge for property, plant and equipment was recorded in "Selling, general and administrative expenses" in the Consolidated Statements of Operations. The estimated fair value of property, plant and equipment was determined using a cost approach, which is Level 3 under the fair value hierarchy. Based on the Company's analysis, all other remaining long-lived assets with finite lives were not impaired as of December 31, 2021.

Property, plant and equipment, net includes the following:

	December 31	
	2022	2021
Land and land improvements	\$ 32.2	\$ 33.5
Plant and equipment	858.0	856.7
Property, plant and equipment, at cost	890.2	890.2
Allowances for depreciation and amortization	(580.2)	(559.7)
	<u>\$ 310.0</u>	<u>\$ 330.5</u>

Total depreciation and amortization expense on property, plant and equipment was \$38.9 million, \$40.8 million and \$36.8 million during 2022, 2021, and 2020, respectively.

NOTE 12—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. As part of the quantitative testing process for goodwill, the Company estimates fair values using a discounted cash flow approach from the perspective of a market participant and comparable market values for similar businesses. 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 for impairment was conducted as of May 1, 2022. The fair value of each reporting unit was in excess of its carrying value and thus, no impairment exists.

During 2021, the Company completed the annual testing of impairment of goodwill as of May 1, 2021 and an interim impairment test as of December 31, 2021 at the reporting unit level for the related goodwill. Based on the annual testing, the fair value of each reporting unit was in excess of its carrying value and no impairment existed. During 2021, the Company continued to experience pandemic-related and other global supply chain constraints, component shortages, shipping container availability constraints and higher freight costs, as well as significant material cost inflation resulting from the accelerated pace of the market recovery. These items significantly impacted the Company's results of operations in 2021. In addition, the timeframe for the expected easing of these factors impacted the Company's near and long-term forecasts. Accordingly, in

connection with the preparation of its 2021 financial statements, the Company conducted an interim goodwill impairment test as of December 31, 2021 for the JAPIC and Bolzoni reporting units. As a result, the Company recognized a \$55.6 million goodwill impairment charge for the JAPIC reporting unit in the fourth quarter of 2021, of which \$11.7 million was attributable to the noncontrolling interest. No impairment of goodwill for the Bolzoni reporting unit was identified.

The following table summarizes goodwill by segment as of December 31, 2022 and 2021:

	Carrying Amount of Goodwill				
	Americas	EMEA	JAPIC	Bolzoni	Total
Balance at January 1, 2021	\$ 1.7	\$ 1.1	\$ 54.2	\$ 57.7	\$ 114.7
Impairment	—	—	(55.6)	—	(55.6)
Foreign currency translation	—	(0.1)	1.4	(3.9)	(2.6)
Balance at December 31, 2021	\$ 1.7	\$ 1.0	\$ —	\$ 53.8	\$ 56.5
Disposals	—	—	—	(1.7)	(1.7)
Foreign currency translation	—	—	—	(3.5)	(3.5)
Balance at December 31, 2022	\$ 1.7	\$ 1.0	\$ —	\$ 48.6	\$ 51.3

The Company has indefinite-lived intangible assets for 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 Company completed the annual testing of impairment as of May 1, 2022. The fair value of the indefinite-lived intangible assets was in excess of its carrying value and thus, no impairment existed.

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

December 31, 2022	Gross Carrying Amount	Accumulated Amortization	Net Balance
Intangible assets not subject to amortization			
Trademarks	\$ 16.0	\$ —	\$ 16.0
Intangible assets subject to amortization			
Customer and contractual relationships	36.6	(19.9)	16.7
Patents and technology	19.6	(13.3)	6.3
Trademarks	5.4	(1.7)	3.7
Total	\$ 77.6	\$ (34.9)	\$ 42.7
December 31, 2021	Gross Carrying Amount	Accumulated Amortization	Net Balance
Intangible assets not subject to amortization			
Trademarks	\$ 17.0	\$ —	\$ 17.0
Intangible assets subject to amortization			
Customer and contractual relationships	40.0	(19.5)	20.5
Patents and technology	21.0	(12.1)	8.9
Trademarks	5.8	(1.5)	4.3
Total	\$ 83.8	\$ (33.1)	\$ 50.7

Amortization expense for intangible assets, which is recognized on a straight-line basis over the estimated useful life of the related asset, was \$4.5 million and \$5.4 million in 2022 and 2021, respectively. Expected annual amortization expense of other intangible assets, based upon December 31, 2022 U.S. dollar values, for the next five years is as follows: \$3.9 million in 2023, \$3.9 million in 2024, \$3.9 million in 2025, \$3.2 million in 2026 and \$2.2 million in 2027. The weighted-average amortization period for intangible assets is as follows:

Intangible assets subject to amortization	Weighted-Average Useful Lives (Years)
Customer relationships	10
Patents and technology	4
Trademarks	14

NOTE 13—Current and Long-Term Financing

The following table summarizes available and outstanding borrowings:

	December 31	
	2022	2021
Total outstanding borrowings:		
Revolving credit agreements	\$ 137.1	\$ 165.3
Term loan, net	217.5	218.6
Other debt	168.7	106.4
Finance lease obligations	29.6	28.2
Total debt outstanding	\$ 552.9	\$ 518.5
Plus: discount on term loan and unamortized deferred financing fees	4.1	5.3
Total debt outstanding, gross	\$ 557.0	\$ 523.8
Current portion of borrowings outstanding	\$ 285.9	\$ 256.8
Long-term portion of borrowings outstanding	\$ 267.0	\$ 261.7
Total available borrowings, net of limitations, under revolving credit agreements	\$ 320.0	\$ 330.4
Unused revolving credit agreements	\$ 182.9	\$ 165.1
Weighted average stated interest rate on total borrowings	6.5 %	4.2 %
Weighted average effective interest rate on total borrowings (including interest rate swap agreements)	5.9 %	3.6 %

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

2023	\$ 273.9
2024	19.2
2025	13.1
2026	8.6
2027	2.2
Thereafter	210.4
	\$ 527.4

Interest paid on total debt was \$26.6 million, \$14.5 million and \$13.0 million during 2022, 2021 and 2020, respectively.

The Company has a \$300.0 million secured, floating-rate revolving credit facility (the "Facility") that expires in June 2026 and a \$225.0 million term loan (the "Term Loan"), which matures in May 2028.

The Facility can be increased up to \$400.0 million over the term of the Facility in minimum increments of \$10.0 million, subject to approval by the lenders. The obligations under the Facility are generally secured by a first priority lien on working capital assets of the borrowers and guarantors in the Facility, which includes but is not limited to cash and cash equivalents, accounts receivable and inventory, and a second priority lien on the present and future shares of capital stock, fixtures and general intangibles consisting of intellectual property. The approximate book value of assets held as collateral under the Facility was \$1.1 billion as of December 31, 2022.

The Facility includes restrictive covenants, which, among other things, limit additional borrowings and investments of the Company subject to certain thresholds, as provided in the Facility. The Facility limits the payment of dividends and other restricted payments the Company may make unless certain total excess availability and/or fixed charge coverage ratio thresholds, each as set forth in the Facility, are satisfied. The Facility also requires the Company to achieve a minimum fixed charge coverage ratio when total excess availability is less than the greater of 10% of the total borrowing base, as defined in the Facility, and \$20.0 million. At December 31, 2022, the Company was in compliance with the covenants in the Facility.

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Key terms of the Facility as of December 31, 2022 were as follows:

	FACILITY
US borrowing capacity	\$ 210.0
Non-U.S. borrowing capacity	90.0
Outstanding	134.6
Availability restrictions	7.7
Availability	<u>\$ 157.7</u>
Applicable margins, as defined in agreement	
U.S. base rate loans	0.25%-0.75%
LIBOR, EURIBOR and foreign base rate loans	1.25%-1.75%
Applicable margins, for amounts outstanding	
U.S. base rate and LIBOR loans	0.50%; 1.50%
Non-U.S. base rate and LIBOR loans	1.50%
Applicable interest rate, for amounts outstanding	
U.S. base rate	8.00%
LIBOR	5.69%
EURIBOR	3.88%
Facility fee, per annum on unused commitment	0.25%

The Term Loan requires quarterly principal payments on the last day of each March, June, September and December commencing September 30, 2021 in an amount equal to \$562,500 and the final principal repayment is due in May 2028. The Company may also be required to make mandatory prepayments, in certain circumstances, as provided in the Term Loan.

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 and a second priority lien on working capital assets of the borrowers of the Facility, which includes, but is not limited to cash and cash equivalents, accounts receivable and inventory. The approximate book value of assets held as collateral under the Term Loan was \$750 million as of December 31, 2022.

In addition, the Term Loan includes restrictive covenants, which, among other things, limit additional borrowings and investments of the Company subject to certain thresholds, as provided in the Term Loan. The Term Loan limits the payment of dividends and other restricted payments the Company may make in any fiscal year, unless the consolidated total net leverage ratio, as defined in the Term Loan, does not exceed 2.50 to 1.00 at the time of the payment. At December 31, 2022, the Company was in compliance with the covenants in the Term Loan.

Key terms of the Term Loan as of December 31, 2022 were as follows:

	TERM LOAN
Outstanding	\$ 221.6
Discounts and unamortized deferred financing fees	4.1
Net amount outstanding	<u>\$ 217.5</u>
Applicable margins, as defined in agreement	
U.S. base rate loans	2.50%
Eurodollar	3.50%
Eurodollar floor	0.50%
Applicable interest rate, for amounts outstanding	7.88%

The Company incurred fees of \$7.6 million in 2021. These fees related to amending the Facility and the Term Loan. These fees were deferred and are being amortized as interest expense over the term of the applicable debt agreements. No fees were incurred in 2022 or 2020. 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 \$171.2 million at December 31, 2022. In addition to the excess availability under the Facility of \$157.7 million, the Company had remaining availability of \$25.2 million related to other non-U.S. revolving credit agreements.

NOTE 14—Leasing Arrangements

The Company determines if an arrangement contains a lease and the classification of that lease, if applicable, at inception. The Company does not recognize a lease liability or right-of-use ("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 does not allocate the contract consideration, and accounts 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 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, 2022 and 2021, the Company had the following amounts recorded on the Company's Consolidated Balance Sheets:

	Location on Balance Sheet	December 31, 2022	December 31, 2021
Assets			
Operating lease assets	Other non-current assets	\$ 57.2	\$ 68.8
Finance lease assets	Property, plant and equipment, net	37.0	28.2
Total		<u>\$ 94.2</u>	<u>\$ 97.0</u>
Liabilities			
Current			
Operating lease liabilities	Other current liabilities	14.4	16.5
Finance lease liabilities	Current maturities of long-term debt	12.8	10.2
Long-term			
Operating lease liabilities	Other long-term liabilities	45.9	56.3
Finance lease liabilities	Long-term debt	16.8	18.0
Total		<u>\$ 89.9</u>	<u>\$ 101.0</u>

Finance lease assets are recorded net of accumulated amortization of \$22.1 million and \$17.6 million as of December 31, 2022 and 2021, respectively. Amortization of plant and equipment under finance leases is included in depreciation expense. Finance lease obligations of \$12.1 million, \$12.4 million and \$17.0 million were incurred in connection with lease agreements to acquire machinery and equipment during 2022, 2021 and 2020, respectively. In addition, leases with HYGFS included in the Consolidated Balance Sheet at December 31, 2022 and 2021, include \$10.9 million and \$16.1 million of ROU assets and \$11.0 million and \$16.2 million of lease liabilities.

As of December 31, 2022, the Company had the following remaining lease term and weighted average discount rates:

	Operating Leases	Finance Leases
Weighted-average remaining lease term in years	6.82	2.82
Weighted-average discount rate	4.94 %	1.24 %

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For the December 31, 2022, the Company recorded the following amounts:

	Location on Income Statement	Year Ended December 31, 2022	Year Ended December 31, 2021
Operating lease cost	Cost of sales	\$ 8.8	\$ 10.7
	Selling, general and administrative expenses	20.2	18.3
Operating lease cost			
Finance lease cost			
Amortization of leased assets	Cost of sales	6.8	7.3
Interest on lease liabilities	Interest expense	0.6	0.7
Sublease income	Revenues	(8.7)	(9.4)
Total		\$ 27.7	\$ 27.6

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, 2022 were \$28.4 million.

For the year ended December 31, 2022, the Company recorded the following amounts:

	Year Ended December 31, 2022	Year Ended December 31, 2021
Cash paid for lease liabilities		
Operating cash flows from operating leases	\$ 22.8	\$ 23.9
Operating cash flows from finance leases	0.6	0.7
Financing cash flows from finance leases	7.0	7.6
Non-cash amounts related to right-of-use assets obtained in exchange for lease obligations		
Operating	\$ 22.3	\$ 21.8
Finance	8.4	9.8

Annual maturities of lease liabilities are as follows:

	Operating Leases	Finance Leases	Total
2023	\$ 16.2	\$ 13.4	\$ 29.6
2024	12.3	10.2	22.5
2025	8.9	4.9	13.8
2026	7.0	0.8	7.8
2027	6.1	0.7	6.8
Thereafter	19.9	—	19.9
	70.4	30.0	100.4
Less: Interest	(10.1)	(0.4)	(10.5)
Net	\$ 60.3	\$ 29.6	\$ 89.9

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.

NOTE 15—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:

	2022	2021
Balance at January 1	\$ 64.7	\$ 64.7
Current year warranty expense	28.7	26.0
Change in estimate related to pre-existing warranties	(6.1)	2.7
Payments made	(29.7)	(27.6)
Foreign currency effect	(0.9)	(1.1)
Balance at December 31	\$ 56.7	\$ 64.7

NOTE 16—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 lawsuits in Brazil to recover certain social integration and social contribution taxes paid on gross sales, including the ICMS, which is a form of state value added tax. During the course of the lawsuit, many other taxpayers filed lawsuits with the same objective. Due to the increasing number of lawsuits filed, the Federal Supreme Court ("STF") declared that all ongoing legal cases should have their decision suspended until the STF decides on the matter, a decision that was expected to apply to all cases on this topic.

In 2019, the Company's legal advisors in Brazil notified the Company that they received judicial notification that the STF had issued a favorable decision in the case granting the Company the right to recover, by offsetting federal tax liabilities, amounts of overpayments collected by the government from 1999 to the present date. The judicial court decision was final and not subject to appeals. The estimate of the refund calculated on a gross basis was approximately 110 million Brazilian reais.

Despite the favorable decision of the STF, the Brazilian tax authorities sought clarification in the same main lawsuit on certain issues, including the value of these credits (i.e., the gross rate or the net credit value), and certain other issues that could have affected the Brazilian taxpayers' rights with respect to these credits, all of which could have materially impacted the realization of the credits. During 2021, the STF ruled in favor of taxpayers that the refund should be calculated on a gross basis.

The amount and ultimate timing of realization of these recoveries was 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 were uncertain. During 2021, the Company sold these credits at a discount and recorded approximately \$8.5 million of income related to these credits in "Cost of Sales" in the Consolidated Statements of Operations.

NOTE 17—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, 2022 and 2021 were \$133.2 million and \$106.8 million, respectively. As of December 31, 2022, 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, 2022 was approximately \$192.2 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, 2022, 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 \$29.5 million of recourse or repurchase obligations for these certain eligible dealers are limited to 7.5% of their original loan balance, or \$11.7 million as of December 31, 2022. The \$29.5 million is included in the \$133.2 million of total amounts subject to recourse or repurchase obligations at December 31, 2022.

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, 2022, approximately \$116.5 million of the Company's total recourse or repurchase obligations of \$133.2 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, 2022, loans from WF to HYGFS totaled \$1.2 billion. Although the Company's contractual guarantee was \$235.1 million, the loans by WF to HYGFS are secured by HYGFS' customer receivables, of which the Company guarantees \$116.5 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 \$215.4 million, which is secured by 20% of HYGFS' customer receivables and other secured assets of \$281.6 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.

The following table includes the exposure amounts related to the Company's guarantees at December 31, 2022:

	HYGFS	Total
Total recourse or repurchase obligations	\$ 116.5	\$ 133.2
Less: exposure limited for certain dealers	29.5	29.5
Plus: 7.5% of original loan balance	11.7	11.7
	98.7	115.4
Incremental obligation related to guarantee to WF	215.4	215.4
Total exposure related to guarantees	\$ 314.1	\$ 330.8

NOTE 18—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, 2022, 2021 and 2020 were \$449.8 million, \$346.1 million and \$452.9 million, respectively. Of these amounts, \$75.6 million, \$66.7 million and \$99.6 million for the years ended December 31, 2022, 2021 and 2020, 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 \$5.4 million and \$7.2 million at December 31, 2022 and 2021, respectively. At December 31, 2022 and 2021, the Company had \$14.3 million and \$11.5 million, respectively, of notes payable to HYGFS for advance funding of inventory that will be financed by HYGFS upon sale. 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 17 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 \$14.3 million and \$20.4 million at December 31, 2022 and 2021, respectively. In addition, the Company provides certain subsidies to its dealers that are paid directly to HYGFS. Total subsidies were \$4.5 million, \$2.5 million and \$3.1 million for 2022, 2021 and 2020, 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 \$5.4 million in 2022, \$5.2 million in 2021 and \$4.9 million in 2020.

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 2022, 2021 and 2020, purchases from SN were \$40.4 million, \$38.6 million and \$23.9 million, respectively. Amounts payable to SN at December 31, 2022 and 2021 were \$21.6 million and \$24.4 million, respectively.

The Company recognized income of \$0.3 million, \$0.4 million and \$0.3 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, 2022, 2021 and 2020, respectively.

Summarized unaudited financial information for equity investments is as follows:

	2022	2021	2020
Statement of Operations			
Revenues	\$ 428.8	\$ 418.0	\$ 389.6
Gross profit	\$ 169.9	\$ 163.4	\$ 135.4
Income from continuing operations	\$ 56.3	\$ 50.0	\$ 28.2
Net income	\$ 56.3	\$ 50.0	\$ 28.2
Balance Sheet			
Current assets	\$ 128.6	\$ 136.0	
Non-current assets	\$ 1,498.5	\$ 1,470.7	
Current liabilities	\$ 138.8	\$ 127.0	
Non-current liabilities	\$ 1,307.6	\$ 1,267.2	

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

	December 31, 2022	December 31, 2021
HYGFS	\$ 21.8	\$ 25.2
SN	36.0	43.7
Bolzoni investments	0.4	0.3

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

	2022	2021	2020
HYGFS	\$ 14.9	\$ 5.1	\$ 6.4
SN	0.7	0.4	0.9
	\$ 15.6	\$ 5.5	\$ 7.3

During the first quarter of 2021, the Company sold its investment in preferred shares of a third party, OneH2, Inc. ("OneH2"), Inc. for \$15.7 million, including accrued dividends, and recognized a gain of \$4.6 million. The gain on the sale of the investment is included on the line "Other, net" in the "Other (income) expense" section of the Consolidated Statements of Operations. The Company's investment was \$0.8 million at each of December 31, 2022 and December 31, 2021. The Company recorded \$1.3 million of accrued dividend income related to this investment in 2020.

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, 2022 and December 31, 2021 was \$0.5 million and \$1.7 million, respectively. Any gain or loss on the investment is included on the line "Other, net" in the "Other (income) expense" section of the Consolidated Statements of Operations for the years ended December 31, as follows:

	2022	2021	2020
Loss on equity investment	\$ (1.0)	\$ (0.2)	\$ (0.5)

NOTE 19—Maximal Equity Transfer Agreement

During 2021, the Company signed an ETA with HK Holding Co. In June 2022, the Company purchased 15% of the equity interest of Hyster-Yale Maximal from HK Holding Co for an aggregate purchase price of \$25.2 million, which will be paid in annual installments of \$8.4 million beginning in June 2022 through June 2024. The Company has an option to purchase HK Holding Co's remaining 10% interest in Hyster-Yale Maximal at any time prior to June 8, 2056 for \$16.8 million. If this option is exercised, the Company will own 100% of the equity interest of Hyster-Yale Maximal. As of December 31, 2022, the Company owned a 90% majority interest in Hyster-Yale Maximal.

In addition, under the provisions of the ETA, HK Holding Co maintains a put option by which the Company could be required to exercise its purchase option. As one of the factors that could trigger the put option is outside of the Company's control, the remaining 10% purchase option is considered contingently redeemable. Accordingly, the redeemable noncontrolling interest is not considered to be a component of stockholders' equity and instead is reported as temporary equity in the Consolidated Balance Sheets. Because the occurrence of the event that would trigger the put option is not probable of occurring, the Company will continue to attribute the 10% portion of earnings and losses, as well as any dividends declared, to the noncontrolling interest after the closing date of the ETA. As of the closing date of the ETA, the Company recorded the estimated fair value of the purchase option of \$13.4 million as redeemable noncontrolling interest.

AMENDMENT TO THIRD AMENDED AND RESTATED JOINT VENTURE AND SHAREHOLDERS AGREEMENT

This Amendment (this “**Amendment**”) to that certain **THIRD AMENDED AND RESTATED JOINT VENTURE AND SHAREHOLDERS AGREEMENT** (the “**Agreement**”) between Hyster-Yale Group, Inc. (“**HYG**”) and Wells Fargo Financial Leasing, Inc. (“**WFFL**”), dated September 17, 2018, as the same may be amended and restated from time to time, is entered into as of December 19, 2022 (the “**Effective Date**”). The terms of this Amendment are hereby incorporated into the Agreement as though fully set forth therein. All capitalized terms not otherwise defined herein will have the meanings set forth in the Agreement.

WHEREAS, HYG and WFFL have each determined that it is in their best interest to extend the Base Term of the Agreement;

NOW, THEREFORE, in consideration of good and valuable consideration, the sufficiency of which is agreed to by all of the parties, the parties hereto, intending to be legally bound, agree as follows:

- 1. Base Term Amendment.** The reference to “December 31, 2023” in Section 14. (a) of the Agreement is hereby amended to read “December 31, 2028”.
- 2. Limitations.** The amendments set forth herein are limited precisely as written and shall not be deemed to (a) be a consent to, or waiver or modification of, any other term or condition of the Agreement, or (b) prejudice any right or rights which any party may now have or may have in the future under or in connection with the Agreement or any of the other documents referred to therein. Except as expressly modified hereby or by express written amendments thereof, the terms and provision of the Agreement or any other documents or instruments executed in connection with the foregoing are and shall remain in full force and effect. In the event of a conflict between this Amendment and any of the foregoing documents, the terms of this Amendment shall be controlling.
- 3. Miscellaneous.** This Amendment and the documents referred to herein represent the entire understanding of the parties hereto regarding the subject matter hereof and supersede all prior and contemporaneous oral and written agreements of the parties hereto with respect to the subject matter hereof. This Amendment may be executed in one or more counterparts, each of which when so executed and delivered (whether by facsimile or other electronic means) shall be an original, but all of which together shall constitute one and the same instrument. The parties hereto agree this Amendment may be executed by electronic signature, which shall be considered as an original signature for all purposes

and shall have the same force and effect as an original signature. Without limitation, "electronic signature" shall include faxed versions of an original signature, electronically scanned and transmitted versions (e.g., via pdf) of an original signature, or digital signatures using any other electronic medium used to transmit any signature of a party to this Amendment.

IN WITNESS WHEREOF, the duly authorized representative of the parties have executed this Amendment as of the Effective Date.

**HYSTER-YALE
GROUP, INC.**

By: /s/ Jon Taylor
Name: Jon Taylor
Title: Vice President, Chief Financial Officer

WELLS FARGO FINANCIAL LEASING, INC.

By: /s/ David O'Neill
Name: David O'Neill
Title: President

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.

<u>Name</u>	<u>Incorporation</u>
Auramo OY	Finland
Bolzoni Auramo AB	Sweden
Bolzoni Auramo Canada Ltd.	Canada
Bolzoni Auramo Inc.	South Carolina
Bolzoni Auramo Polska SP Zoo	Poland (60%)
Bolzoni Auramo Pty Ltd.	Australia
Bolzoni Auramo SL Sociedad Unipersonal	Spain
Bolzoni Auramo (Wuxi) Forklift Truck Attachment Co. Ltd.	China
Bolzoni Capital UK, Limited	United Kingdom
Bolzoni (Hebei) Forks Manufacturing Co. Ltd.	China
Bolzoni Holding Hong Kong	Hong Kong (PRC)
Bolzoni Holding SpA	Italy
Bolzoni Ltd.	United Kingdom
Bolzoni Portugal Lda.	Portugal (31%)
Bolzoni Sarl	France
Bolzoni South America Acessorios Para Empilhadeiras 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 Pte. Ltd.	Singapore
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 Europe B.V.	Netherlands
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 (90%)
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
Maximal Forklift (Zhejiang) Co., Ltd.	China (90%)
Meyer GmbH	Germany
Nuvera Fuel Cells, LLC.	Delaware
Nuvera Fuel Cells (Zhejiang) Company Limited	China

Name

Onoda Industry Co. Ltd.
Shanghai Hyster Forklift, Ltd.
SNP Estate Corporation
Suminac Philippines, Inc.
Sumitomo NACCO Forklift Co., Ltd.
Sumitomo NACCO Forklift Sales Co., Ltd.
Sumitomo NACCO Forklift Vietnam Co., Ltd.
Tohoku Shinko Co., Ltd.
Tokai Shinko Co., Ltd.
Yale Materials Handling UK Ltd.
Yale SLT Fordertechnik GmbH

Incorporation

Japan (20%)
China
Philippines (20%)
Philippines (50%)
Japan (50%)
Japan (50%)
Vietnam (50%)
Japan (50%)
Japan (15%)
United Kingdom
Germany

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. 333-262448 pertaining to the Hyster-Yale Materials Handling, Inc. 2020 Long-Term Equity Incentive Plan of Hyster-Yale Materials Handling, Inc. for the registration of 908,590 shares of Class A common stock,
- (2) 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,
- (3) 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,
- (4) 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, and
- (5) Registration Statement on Form S-8 No. 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 27, 2023, with respect to the consolidated financial statements 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, 2022.

/s/ Ernst & Young LLP

Cleveland, Ohio
February 27, 2023

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 15d-15(f)), for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2023

/s/ Alfred M. Rankin, Jr.

Alfred M. Rankin, Jr.

Chairman and Chief Executive Officer (principal executive officer)

Certifications

I, Scott A. Minder, 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 15d-15(f)), for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2023

/s/ Scott A. Minder

Scott A. Minder
Senior Vice President, Chief Financial Officer and Treasurer (principal financial officer)

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

In connection with the Annual Report of Hyster-Yale Materials Handling, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2022, 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 27, 2023

/s/ Alfred M. Rankin, Jr.

Alfred M. Rankin, Jr.

Chairman and Chief Executive Officer (principal executive officer)

Date: February 27, 2023

/s/ Scott A. Minder

Scott A. Minder

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