UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

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

for the fiscal year ended December 31, 2022

or

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

Commission file number: 1-31371

Oshkosh Corporation
(Exact name of registrant as specified in its charter)

Wisconsin	**39-0520270**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1917 Four Wheel Drive Oshkosh, Wisconsin	**54902**
(Address of principal executive offices)	(Zip code)

(920) 502-3400
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock $0.01 par value	OSK	New York Stock Exchange

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically 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 an emerging growth company. See the 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 control 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 Act).

☐ Yes ☒ No

At June 30, 2022, the aggregate market value of the registrant’s Common Stock held by non-affiliates was $5,369,063,686 (based on the closing price of $82.14 per share on the New York Stock Exchange as of such date).

As of February 14, 2023, 65,431,763 shares of the registrant’s Common Stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the Proxy Statement for the 2023 Annual Meeting of Shareholders (to be filed with the Commission under Regulation 14A within 120 days after the end of the registrant’s fiscal year and, upon such filing, to be incorporated by reference into Part III).

Auditor Firm ID: 34 Auditor Name: Deloitte & Touche LLP Auditor Location: Milwaukee, WI

OSHKOSH CORPORATION
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As used herein, the “Company,” “we,” “us” and “our” refers to Oshkosh Corporation and its consolidated subsidiaries. “Oshkosh” refers to Oshkosh Corporation, not including JLG Industries, Inc. and its wholly-owned subsidiaries (JLG), Oshkosh Defense, LLC (Oshkosh Defense) and its wholly-owned subsidiaries, Pratt & Miller Engineering & Fabrications, LLC (Pratt Miller), Pierce Manufacturing Inc. (Pierce), Maxi-Metal, Inc. (Maxi-Metal), McNeilus Companies, Inc. (McNeilus) and its wholly-owned subsidiaries, Oshkosh Airport Products, LLC (Airport Products), Kewaunee Fabrications, LLC (Kewaunee), Oshkosh Commercial Products, LLC (Oshkosh Commercial), London Machinery Inc. and its wholly-owned subsidiary (London) and Iowa Mold Tooling Co., Inc. (IMT) or any other subsidiaries.

The “Oshkosh®,” “JLG®,” “Oshkosh Defense®,” “Pierce®,” “McNeilus®,” “Jerr-Dan®,” “Frontline™,” “London®,” “IMT®,” “Pratt Miller®,” “Maxi-Metal®,” “Command Zone™,” “TAK-4®,” “PUC™,” “Hercules™,” “Husky™,” “Ascendant™,” “SkyTrak®” and “ProPulse®,” “DaVinci™,” and “Volterra™” trademarks and related logos are trademarks or registered trademarks of the Company. All other product and service names referenced in this document are the trademarks or registered trademarks of their respective owners.

All references herein to earnings per share refer to earnings per share assuming dilution, unless noted otherwise.

For ease of understanding, the Company refers to types of purpose-built vehicles and equipment for particular applications as “markets.” When the Company refers to “market” positions, these comments are based on information available to the Company concerning units sold by those companies currently manufacturing the same types of purpose-built vehicles and equipment as the Company and are therefore only estimates. Unless otherwise noted, these market positions are based on sales in the United States of America. There can be no assurance that the Company will maintain such market positions in the future.

Cautionary Statement About Forward-Looking Statements

The Company believes that certain statements in “Business” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and other statements located elsewhere in this Annual Report on Form 10-K are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact included in this report, including, without limitation, statements regarding the Company’s future financial position, business strategy, targets, projected sales, costs, earnings, capital expenditures, debt levels and cash flows, and plans and objectives of management for future operations, including those under the caption “Overview” in “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” are forward-looking statements. When used in this Annual Report on Form 10-K, words such as “may,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “believe,” “should,” “project” or “plan” or the negative thereof or variations thereon or similar terminology are generally intended to identify forward-looking statements. These forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties, assumptions and other factors, some of which are beyond the Company’s control, which could cause actual results to differ materially from those expressed or implied by such forward-looking statements. These factors include the extent of supply chain and logistics disruptions; the Company’s ability to increase prices or impose surcharges to raise margins or to offset higher input costs, including increased raw material, labor, freight and overhead costs; the Company’s ability to attract and retain production labor in a timely manner; the cyclical nature of the Company’s access equipment, commercial and fire & emergency markets, which are particularly impacted by the strength of U.S. and European economies and construction seasons; the Company’s estimates of access equipment demand which, among other factors, is influenced by historical customer buying patterns and rental company fleet replacement strategies; the strength of the U.S. dollar and its impact on Company exports, translation of foreign sales and the cost of purchased materials; the Company’s ability to predict the level and timing of orders for indefinite delivery/indefinite quantity contracts with the U.S. federal government; the impact of any U.S. Department of Defense solicitation for competition for future contracts to produce military vehicles; the impacts of orders from the U.S. Postal Service; the impact of severe weather, war, natural disasters or pandemics that may affect the Company, its suppliers or its customers; risks related to the collectability of receivables, particularly for those businesses with exposure to construction markets; the cost of any warranty campaigns related to the Company’s products; risks associated with international operations and sales, including compliance with the Foreign Corrupt Practices Act; risks that a trade war and related tariffs could reduce the competitiveness of the Company’s products; the Company’s ability to comply with complex laws and regulations applicable to U.S. government contractors; cybersecurity risks and costs of defending against, mitigating and responding to data security threats and breaches impacting the Company; the Company’s ability to successfully identify, complete and integrate acquisitions and to realize the anticipated benefits associated with the same; and risks related to the Company’s ability to successfully execute on its strategic road map and meet its long-term financial goals. Additional information concerning these and other factors that could cause actual results to differ materially from those in the forward-looking statements is contained in Item 1A of Part I of this report.

All forward-looking statements, including those under the caption “Overview” in “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” speak only as of February 21, 2023. The Company assumes no obligation, and disclaims any obligation, to update information contained in this Annual Report on Form 10-K. Investors should be aware that the Company may not update such information until the Company’s next quarterly earnings conference call, if at all.

PART I

ITEM 1. BUSINESS

In October 2021, the Company changed its fiscal year end from September 30 to December 31. Accordingly, the Company reported a transition quarter that ran from October 1, 2021 through December 31, 2021. Fiscal 2020 and Fiscal 2021 relate to the years ended September 30, 2020 and September 30, 2021, respectively. Fiscal 2022 relates to the year ended December 31, 2022.

Effective January 31, 2023, the Company formed a new reporting segment called Vocational. The Vocational segment was created by combining the Fire & Emergency segment and Commercial segment businesses, which all design, develop and manufacture purpose-built vocational vehicles for people in communities around the world who do tough work. The discussions below speak to the Company's segments as of December 31, 2022 unless noted otherwise.

The Company

Oshkosh Corporation is an industrial technology company and manufacturer that innovates purpose-built vehicles and equipment for the access, defense, fire & emergency, refuse collection and concrete placement markets. Each of our products and technologies is designed with the customer in mind, from the four-wheel drive system that the Company patented in 1917 to advances in electrification, autonomy, active safety and intelligent and connected products.

The Company is comprised of 12 industry-leading brands across four reportable segments for financial reporting purposes: Access Equipment, Defense, Fire & Emergency and Commercial, which comprised 48%, 26%, 13% and 13%, respectively, of the Company's consolidated net sales in fiscal 2022. Oshkosh's leading brands include a wide range of purpose-built vehicles and equipment to serve a diverse group of industries. This allows Oshkosh to leverage innovations and efficiencies across the enterprise, including supply chain, materials integration, manufacturing processes and facilities to create a leading industrial technology company in its end markets. The Company made approximately 25%, 33% and 35% of its net sales for fiscal 2022, 2021 and 2020, respectively, to the U.S. government, a substantial majority of which were under multi-year contracts and programs in the defense vehicle market. See Note 23 of the Notes to Consolidated Financial Statements for financial information related to the Company's business segments.

JLG is a designer and manufacturer of access and material handling equipment for use in a wide range of construction, industrial and maintenance applications to safely position workers and materials at height. JLG's customer base includes equipment rental companies, construction contractors, manufacturing companies and home improvement centers. The Access Equipment segment also includes Jerr-Dan towing and recovery vehicles (wreckers and carriers).

The Defense segment designs, produces and sustains best-in-class specialty vehicles and mobility systems. In 1981, Oshkosh Defense was awarded the first Heavy Expanded Mobility Tactical Truck (HEMTT) contract for the DoD, and thereafter, it developed into the U.S. Department of Defense's (DoD) leading supplier of severe-duty, heavy-payload tactical trucks, manufacturing vehicles that perform a variety of demanding tasks such as hauling tanks, missile systems, ammunition, fuel, troops and cargo for combat units. In 2009, Oshkosh Defense became the DoD's sole producer of the Family of Medium Tactical Vehicles (FMTV). In 2018, after successful completion of the original five-year requirements contract and several contract extensions, the DoD awarded Oshkosh Defense the FMTV A2 contract for the design, development, production and support of the next generation of FMTV. The Company is currently nearing completion of the production verification testing phase of the FMTV A2 contract and will begin operational testing of the vehicle in 2024. In 2015, Oshkosh Defense extended its position into the light-payload tactical wheeled vehicle category by capturing the DoD's Joint Light Tactical Vehicle (JLTV) program. Oshkosh Defense can accept vehicle orders on the JLTV contract through the first quarter of fiscal 2024, with deliveries into 2025. The DoD conducted a full and open competition for follow-on JLTV production in which Oshkosh Defense participated. In February 2023, the DoD awarded the JLTV follow on contract to another company. JLTV accounted for sales of $1.33 billion in fiscal 2022. In February 2021, the U.S. Postal Service (USPS) awarded Oshkosh Defense an indefinite delivery, indefinite quantity (IDIQ) contract to produce the Next Generation Delivery Vehicle (NGDV), the USPS's first large-scale fleet procurement in three decades. The competitively awarded contract allows for the delivery of up to 165,000 vehicles over a 10-year period. In June 2021, the U.S. Army awarded Oshkosh Defense a six-year contract to integrate a Medium Caliber Weapons System onto Stryker Double V Hull Infantry Carrier Vehicles. In addition, the Defense segment offers engineering and product development services to customers in the motorsports and multiple ground vehicle markets through Pratt Miller. The Defense segment also designs and manufactures snow removal equipment for airports.

The Fire & Emergency segment includes the Pierce and Maxi-Metal brands, leading manufacturers of custom and commercial firefighting vehicles and equipment in North America. The segment also includes Oshkosh Airport Products aircraft rescue and firefighting (ARFF) vehicles, as well as Frontline Communications branded simulators, command vehicles and other communication vehicles. Primary customers include fire departments, airports, municipalities, broadcasters and television stations.

The Commercial segment designs and manufactures refuse collection, rear- and front-discharge concrete placement vehicles, field service vehicles and truck mounted cranes under the McNeilus, London Machinery and IMT brands. Customers include municipalities, and private refuse companies, as well as ready-mix, mining and construction businesses.

Competitive Strengths

The following competitive strengths support the Company's business strategy:

Strong Market Positions. The Company has developed strong market positions and brand recognition in its core businesses, which it attributes to its reputation for quality products, advanced engineering, market leading innovation, vehicle and equipment performance, reliability, customer service and low total cost of ownership. The Company maintains leading market shares in nearly all of its businesses and is the sole-source supplier of a number of vehicles to the DoD.

Diversified Product Portfolios. The Company believes its broad product portfolios and end markets serve to diversify its sources of revenues, mitigate the impact of economic cyclicality and provide multiple platforms for both organic and inorganic growth. The Company's product portfolios provide extensive opportunities to bundle products for sale to customers, co-locate manufacturing, leverage purchasing power and share innovation and technology within and between segments. For each of its target markets, the Company has developed or acquired a broad product line in an effort to become a single-source provider of purpose-built vehicles and equipment, parts and service and related products to its customers. In addition, the Company has established an extensive domestic and international distribution network for purpose-built vehicles and equipment tailored to each market.

Quality Products and Customer Service. The Company has developed strong brand recognition for its products as a result of its commitment to meet the stringent product quality and reliability requirements of its customers in the purpose-built vehicle and equipment markets it serves. The Company frequently achieves premium pricing due to the quality, durability and low total cost of ownership of its products and its commitment to providing high quality lifecycle support through extensive parts and service support programs.

Innovative and Proprietary Components. The Company's advanced design and engineering capabilities have contributed to the development of innovative and/or proprietary, severe-duty components that enhance vehicle performance, reduce manufacturing costs and strengthen customer relationships. The Company's advanced design and engineering capabilities have also allowed it to integrate many of these components across various segments and product lines, which enhances its ability to compete for new business and reduces its costs to manufacture its products compared to manufacturers who simply assemble purchased components. The Company has been a supplier of electric-powered products for more than 20 years and recently launched several new products that leverage zero emissions electrification for mobility across all segments.

Flexible and Efficient Manufacturing. The Company believes it has competitive advantages over larger vehicle manufacturers in its purpose-built vehicle and equipment markets due to its product quality, manufacturing flexibility, purchasing power and distribution networks. The Company also believes it has competitive advantages over smaller vehicle and equipment manufacturers due to volumes that offer purchasing power, technology and manufacturing sharing opportunities across product lines.

Strong Management Team. The Company is led by President and Chief Executive Officer John C. Pfeifer. Mr. Pfeifer is complemented by an experienced senior management team that has been assembled through internal promotions and external hires. The Company's Board of Directors maintains a robust succession planning process for its executive officers to ensure strong business continuity.

Business Strategy

The Company has evolved its business strategy to focus on its most important priorities. The strategy is grounded in its purpose of making a difference in people's lives. The strategy is reflected in three simple words: Innovate. Serve. Advance.

I*nnovate.* The Company innovates customer solutions by combining leading technology and operational strength to empower and protect the everyday hero. The Company is developing and integrating advanced technologies to fulfill its purpose in areas such as electrification, autonomy and active safety as well as intelligent and connected products.

S*erve.* The Company serves and supports customers with a relentless focus throughout the product lifecycle. The Company believes that lifecycle services provide a robust growth opportunity while offering stability throughout business cycles.

A*dvance.* The Company advances by expanding into new markets and geographies to make a difference around the world. The Company expects to continue to grow across the world and expand into new categories both organically, as with the USPS program win in the last mile delivery vehicle market, and inorganically through investments and acquisitions.

Products

Oshkosh Corporation is focused on the following core segments of the purpose-built vehicle and equipment markets:

Access Equipment segment. JLG is a leading designer and manufacturer of aerial work platforms and telehandlers used in a wide variety of construction, industrial and maintenance applications to safely position workers and materials at height. In addition, through a long-term license with Caterpillar Inc. that extends to 2025, JLG produces Caterpillar-branded telehandlers for distribution through the worldwide Caterpillar Inc. dealer network. JLG also offers a broad range of parts and accessories, including technical support and training, and reconditioning services. Access Equipment customers include equipment rental companies, construction contractors, manufacturing companies and home improvement centers. JLG's products are marketed worldwide through independent rental companies and distributors that purchase these products and then rent or sell them and provide service support, as well as through other sales and service branches or organizations.

JLG also arranges equipment financing and leasing solutions for its customers, primarily through third-party funding arrangements with independent financial companies, and occasionally provides credit support in connection with these financing and leasing arrangements. Financing arrangements that JLG offers or arranges through this segment include various types of rental fleet loans and leases, as well as floor plan and retail financing. Terms of these arrangements vary depending on the type of transaction, but typically range from 36 to 72 months and generally require the customer to be responsible for maintenance of the equipment and to bear the risk of damage to or loss of the equipment.

The Company, through its Jerr-Dan brand, is a leading designer, manufacturer and marketer of towing and recovery equipment in the U.S. The Company believes Jerr-Dan is recognized as an industry leader in quality and innovation. Jerr-Dan offers a broad line of carriers, wreckers and rotators. In addition to manufacturing equipment, Jerr-Dan provides its customers with one-stop service support and generates revenue from the installation of equipment, as well as the sale of chassis and service parts.

Defense segment. Oshkosh Defense has designed and sold products to the DoD for over 100 years and also exports tactical wheeled vehicles to approved foreign customers. By successfully responding to the DoD's changing vehicle requirements, Oshkosh Defense has become the leading manufacturer of heavy, medium, and light tactical wheeled vehicles and related sustainment services for the DoD. Oshkosh Defense designs and manufactures vehicles that perform a variety of demanding tasks such as hauling tanks, missile systems, ammunition, fuel, troops and cargo for a broad range of missions. Oshkosh Defense's proprietary product line of military heavy-payload tactical wheeled vehicles includes the Heavy Expanded Mobility Tactical Truck (HEMTT), the Heavy Equipment Transporter (HET), the Palletized Load System (PLS), and the Logistic Vehicle System Replacement (LVSR). Oshkosh Defense's proprietary medium-payload military tactical wheeled vehicles include the Medium Tactical Vehicle Replacement (MTVR). Oshkosh Defense's light-payload military tactical wheeled vehicles include the Mine Resistant Ambush Protected-All Terrain Vehicle (M-ATV), which was specifically designed with superior survivability as well as extreme off-road mobility, and the JLTV, the Company's newest and most technologically advanced member of the light-payload vehicle category designed to protect, sustain and provide mobility for personnel and payloads across the full spectrum of military operations.

In 2009, the DoD awarded Oshkosh Defense a contract to be the sole producer of FMTVs under the U.S. Army's FMTV Rebuy program. Originally a five-year requirements contract, the DoD extended the FMTV Rebuy program several times to allow for the delivery of vehicles and trailers through fiscal 2021. In February 2018, the DoD awarded Oshkosh Defense the FMTV A2 contract for the design, development, production and support of a fleet of future generation FMTVs. The FMTV A2 contract is a firm-fixed price requirements contract that initially covers a five-year delivery period starting in 2021, with a customer option for two additional years. The Company is currently nearing completion of the production verification testing phase of the FMTV A2 contract and will begin operational testing of the vehicle in 2024.

In 2015, the DoD awarded Oshkosh Defense a new Family of Heavy Tactical Vehicles (FHTV) contract for the recapitalization of HEMTT, HET and PLS vehicles as well as associated logistics and configuration management support. The contract was a five-year requirements contract for the continued remanufacturing of FHTVs. In April 2021, the DoD awarded Oshkosh Defense an FHTV extension contract. The contract is a three-year requirements contract for FHTVs. This extension contract could extend FHTV deliveries into 2025.

In 2015, Oshkosh Defense extended its position into the light-payload tactical wheeled vehicle category when the DoD awarded Oshkosh Defense an eight-year, fixed price JLTV contract valued at $6.7 billion for production and delivery of 16,901 of these technologically enhanced vehicles and related sustainment services. The Company delivered its first production JLTVs to the U.S. Army in September 2016. The program achieved the full rate production milestone decision in fiscal 2019. In fiscal 2021, the Army authorized an increase to the contract ceiling from 16,901 vehicles to 23,163. Under the current JLTV contract, Oshkosh Defense can accept vehicle orders through the first quarter of 2024 with deliveries into 2025. The U.S. Army, which purchased Government Purpose Rights to the Oshkosh JLTV design, conducted a full and open competition for follow-on JLTV production in which Oshkosh Defense participated. In February 2023, the DoD awarded the JLTV follow on contract to another company. JLTV accounted for sales of $1.33 billion in fiscal 2022.

In February 2021, the Company was notified that the USPS selected Oshkosh Defense to build the NGDV. The IDIQ contract allows the USPS to purchase up to 165,000 units over ten years. The NGDV provides the USPS the ability to significantly modernize its delivery fleet with improved safety, reliability, sustainability and cost-efficiency while providing a much better working experience for the nation's postal carriers. The Company's offering provides the USPS with both zero-emission battery electric vehicles (BEV) and fuel efficient, low emission internal combustion engine (ICE) vehicles. The vehicle design also provides the USPS with the flexibility of converting ICE units to BEV in the future. The initial award for $482 million provided for engineering to finalize the production vehicle design and tooling and factory build-out activities that are necessary prior to vehicle production. In March 2022, the USPS placed its first vehicle order for 50,000 NGDVs, valued at nearly $3.0 billion, including a minimum of 10,019 BEVs. The contract allows the flexibility, when funding is provided, to increase the percentage of BEVs to be produced even after an order is placed. In December 2022, the USPS announced that it anticipates increasing the quantity of vehicles on the initial award to 60,000, of which at least 45,000 will be BEVs. The Company expects to begin delivering production vehicles in 2024.

In June 2021, the U.S. Army awarded Oshkosh Defense a six-year contract worth up to $943 million to integrate the Medium Caliber Weapons System onto Stryker Double V Hull Infantry Carrier Vehicles. This contract award represents the Defense segment's entrance into the adjacent combat vehicles market.

The Defense segment also designs and manufactures snow removal vehicles. The Company's specially designed airport snow removal vehicles are used by some of the largest airports in the world and military bases in the United States. The Company believes that the reliability of its high-performance snow removal vehicles and the speed with which they clear airport runways contribute to its strong position in this market.

Through Pratt Miller, the Company offers advanced engineering, product development and innovation services to the motorsport and multiple ground vehicle markets.

Fire & Emergency segment. Through Pierce, the Company is the leading domestic designer and manufacturer of fire apparatus assembled on custom chassis, designed and manufactured to meet the demanding requirements of firefighters. Pierce also designs and manufactures fire apparatus assembled on commercially available chassis, which are produced for multiple end-customer applications. Pierce's engineering expertise allows it to design its vehicles to meet stringent industry guidelines and government regulations for safety and effectiveness. Pierce primarily serves domestic municipal customers, but also sells fire apparatus to the DoD, airports, universities and large industrial companies, and in international markets. Pierce's history of innovation, research and development in consultation with firefighters has resulted in a broad product line that features a wide range of innovative, high-quality custom and commercial firefighting equipment with advanced fire suppression capabilities. In an effort to be a single-source supplier for its customers, Pierce offers a full line of custom and commercial fire apparatus and emergency vehicles, including pumpers, aerial platform, ladder and tiller trucks, tankers, light-, medium- and heavy-duty rescue vehicles, wildland rough terrain response vehicles, mobile command and control centers, bomb squad vehicles, hazardous materials control vehicles and other emergency response vehicles. Through Maxi-Metal, acquired in June 2022, the Company is a designer and manufacturer of fire apparatus and utility vehicles for the Canadian market.

The Company, through Oshkosh Airport Products, is a leader in the design and sale of ARFF vehicles to domestic and international airports. These highly-specialized vehicles are required to be in service at most airports worldwide to support commercial airlines in the event of an emergency. Many of the largest airports in the United States, including LaGuardia International Airport, John F. Kennedy International Airport, O'Hare International Airport, Denver International Airport, Baltimore-Washington International Airport, Dallas/Fort Worth International Airport, Tampa International Airport, Philadelphia International Airport and San Francisco International Airport, are served by the Company's ARFF vehicles. The U.S. government also maintains a fleet of ARFF vehicles that are used to support military operations throughout the world. Internationally, the Company's vehicles serve, among others, Beijing, China and more than fifty other airports in China; Singapore; Indonesia; Quebec, Canada; Abu Dhabi, UAE; and Birmingham, Cardiff, Manchester and Liverpool, United Kingdom. In addition, the Company has recently delivered ARFF vehicles to airports in Mexico, Japan, Romania, Canada, Ghana and the Cayman Islands. The Company believes that the performance and reliability of its ARFF vehicles contribute to the Company's strong position in this market.

The Company, through its Frontline Communications brand, is a leading manufacturer, system designer and integrator of broadcast vehicles, including electronic field production trailers, satellite news gathering and electronic news gathering vehicles for broadcasters and command trucks for local and federal governments along with being a leading supplier of military simulator shelters and trailers under the Oshkosh Specialty Vehicles (OSV) brand. The Company's broadcast vehicles have been used worldwide to televise the NFL Super Bowl, the FIFA World Cup and the Olympics. Its command vehicles have supported the disaster relief efforts for FEMA and everyday incident response for federal and local law enforcement, emergency management agencies and fire departments.

The Company offers two- to fifteen-year municipal lease financing programs to its Fire & Emergency segment customers in the U.S. through the Pierce Financial Solutions program, provided by PNC Equipment Finance. Programs include competitive lease financing rates, creative and flexible finance arrangements and the ease of one-stop shopping for customers' equipment and financing. The Company typically provides credit support in connection with these financing and leasing arrangements.

Commercial segment. Through McNeilus, the Company is a leading designer and manufacturer of refuse collection vehicles for the waste services industry throughout the Americas. Through Oshkosh Commercial, McNeilus and London, the Company is a leading designer and manufacturer of front- and rear-discharge concrete mixers for the concrete ready-mix industry throughout the Americas. On January 31, 2023, the Company announced the planned divestiture of the rear-discharge concrete mixer business, which it expects to close in the first quarter of 2023.

Through IMT, the Company is a leading North American designer and manufacturer of field service vehicles and truck-mounted cranes for the construction, equipment dealer, building supply, utility, tire service, railroad and mining industries. The Company believes its Commercial segment vehicles and equipment have a reputation for market leading innovation, which drives enhanced safety and reliability, lowering total cost of ownership.

The Company also arranges equipment financing and leasing solutions for its customers, primarily through third-party funding arrangements with independent financial companies, and occasionally provides credit support in connection with these financing and leasing arrangements.

Marketing, Sales, Distribution and Service

The Company believes it differentiates itself from many of its competitors by tailoring its distribution to the needs of its purpose-built vehicle and equipment markets and with its national and global sales and lifecycle service capabilities. Distribution personnel demonstrate to customers how to use the Company's products properly. In addition, the Company's flexible distribution is focused on meeting customers on their terms, whether on a job site, in an evening public meeting or at a municipality's office, compared to the showroom sales approach of the typical dealer of large vehicle manufacturers. The Company backs all products with same-day parts shipment, and its service technicians are available in person or by telephone to domestic customers 365 days a year. The Company believes its dedication to keeping its products in-service in demanding conditions worldwide has contributed to customer loyalty.

The Company provides its salespeople, representatives and distributors with product and sales training on the operation and specifications of its products. The Company's engineers, along with its product managers, develop operating manuals and provide field support at vehicle delivery.

U.S. dealers and representatives enter into agreements with the Company that allow for termination by either party generally upon 90 days' notice, subject to applicable laws. Dealers and representatives, except for those utilized by JLG and IMT, are generally not permitted to market and sell competitive products.

Access Equipment segment. JLG's products are marketed across six continents through independent rental companies and distributors that purchase JLG products and then rent or sell them and provide service support, as well as through other Company owned sales and service branches. JLG maintains a broad worldwide internal sales force. Sales employees are dedicated to specific major customers, channels or geographic regions. JLG's international sales employees are spread among international sales and service offices throughout the world.

The Company markets its Jerr-Dan-branded carriers, wreckers and rotators through its extensive network of independent distributors.

Defense segment. While Oshkosh Defense sells a substantial portion of its domestic defense products directly to principal branches of the DoD, it also sells defense products to numerous international militaries around the globe and has expanded into adjacent markets. Oshkosh Defense maintains a liaison office in Washington, D.C. to represent its interests with the U.S. Congress, the offices of the Executive Branch of the U.S. government, the Pentagon, as well as international embassies and government agencies. Oshkosh Defense locates its business development, consultants and engineering professionals near its customers' principal commands, both domestically and internationally. Oshkosh Defense sells and services defense products to approved international governments as Direct Commercial Sales or Foreign Military Sales via U.S. government channels. Oshkosh Defense supports international sales through international sales offices, as well as through dealers, distributors and representatives.

In addition to marketing its current tactical wheeled vehicle offerings and competing for new contracts, Oshkosh Defense actively works with its customers to develop new applications for its vehicles and expand its services.

Logistics services are increasingly important to Oshkosh Defense. The Company believes that its proven worldwide logistics capabilities, invoicing and electronic payment systems have significantly contributed to the expansion of its defense parts and service business. Oshkosh Defense maintains a large parts distribution warehouse in Milwaukee, Wisconsin to fulfill stringent parts delivery schedule requirements, as well as satellite facilities near DoD bases in the U.S., Europe, Asia and the Middle East.

The Company's snow removal business uses a combination of internal sales and service representatives and distributor locations to focus on the sale of snow removal vehicles, principally to airports, but also to municipalities, counties and other governmental entities in the U.S. and Canada. In addition, the Company maintains offices in Dubai, UAE; Beijing, China; and Singapore to support airport product vehicle sales and aftermarket sales and support in Europe, the Middle East, China and Southeast Asia.

Fire & Emergency segment. The Company believes the geographic breadth, size and quality of its Pierce fire apparatus sales and service organization are competitive advantages in a market characterized by a few large manufacturers and numerous small, regional competitors. Pierce's fire apparatus are sold through an extensive network of independent sales and service organizations with hundreds of sales representatives in the U.S. and Canada, which combine broad geographical reach with high frequency of contact with fire departments and municipal government officials. These sales and service organizations are supported by product and marketing support professionals and contract administrators at Pierce. The Company believes high frequency of contact and local presence are important to cultivate major, and typically infrequent, purchases involving the city or town council, fire department, purchasing, finance and mayoral offices, among others, that may participate in a fire apparatus bid and selection process. After the sale, Pierce's nationwide local parts and service capability is available to help municipalities maintain peak readiness for this vital municipal service.

Pierce also sells directly to the DoD and other U.S. government agencies. Many of the Pierce fire apparatus sold to the DoD are placed in service at U.S. military bases, camps and stations overseas. Additionally, Pierce sells fire apparatus to international municipal and industrial fire departments through a network of international dealers.

The Company markets its Maxi-Metal vehicles through a combination of direct sales representatives and a network of distributors. Certain of these representatives and distributors also handle Pierce products.

The Company markets its Frontline Communications-branded broadcast vehicles and OSV branded shelters through sales representatives and its Frontline Communications-branded command vehicles through both sales representatives and dealer organizations that are directed at government and commercial customers.

The Company markets its Oshkosh-branded ARFF vehicles through a combination of direct sales representatives domestically and an extensive network of representatives and distributors in international markets. Certain of these international representatives and distributors also handle Pierce products.

Commercial segment. The Company believes its network of representatives and dealers is a competitive advantage in refuse collection vehicle and concrete placement markets, particularly in the U.S. waste services industry where principal competitors distribute through dealers and to a lesser extent in the ready-mix concrete industry, where several competitors in part use dealers. The Company believes its distribution model allows for a more tailored distribution approach in the U.S. refuse collection vehicle and concrete mixer markets, whereas dealers frequently offer a broad and mixed product line, and accordingly, the time dealers tend to devote to refuse collection vehicle and concrete mixer sales activities is limited.

The Company has also established an extensive network of representatives and dealers throughout the Americas for the sale of McNeilus-branded refuse collection vehicles and Oshkosh-, McNeilus- and London-branded concrete mixers to international customers. The Company coordinates among its various businesses to respond to large international sales tenders with its most appropriate product offering for the tender.

The Company utilizes an extensive network of representatives and dealers supported by hundreds of internal and external sales and service representatives in North America to sell and service refuse collection vehicles and front- and rear-discharge concrete mixers. The Company also performs sales and service activities at the Company's manufacturing facilities. Service centers located throughout the U.S. provide sales, service and parts distribution to customers in their geographic regions. The Company believes this network represents one of the largest refuse collection vehicle and concrete mixer distribution networks in the U.S.

IMT distributes its products through a wide network of dealers in over one hundred locations worldwide. International dealers are primarily located in Central and South America, Australia and Asia and are primarily focused on mining and construction markets.

Manufacturing

The Company manufactures its products at 29 manufacturing facilities. To reduce production costs, the Company maintains a continuing emphasis on the development of proprietary components, self-sufficiency in fabrication, just-in-time inventory management, improvement in production flows and interchangeability of components among product lines, creation of jigs and fixtures to ensure repeatability of quality processes, utilization of robotics, and performance measurement to assure progress toward cost reduction targets. The Company encourages employee involvement to improve production processes and product quality.

The Company uses a common Quality Management System globally to support the delivery of consistent, high-quality products and services to customers. The Company requires employees at all levels to understand customer and supplier requirements, measure performance, develop systems and procedures to prevent product nonconformance and continually improve all work processes. The Company educates and trains all employees at its facilities in quality principles. The Company utilizes quality gates in its manufacturing facilities to identify issues early in the process and to analyze root cause at the source, resulting in fewer defects and less rework. The Company's Quality Management System is based on ISO 9001, a set of internationally-accepted requirements established by the International Organization for Standardization. ISO 9001 certification indicates that a company has established and follows a rigorous set of standards aimed at achieving customer satisfaction by following a process-based approach to identify and control the quality needs of suppliers, inputs, critical processes and outputs. The Quality Management System helps ensure that the Company is continually improving and sharing successful practices across the organization. The following brands are ISO 9001 certified: JLG, Oshkosh Defense, Pierce, McNeilus, Frontline, Jerr-Dan and Oshkosh Airport Products.

The Company has a team of employees dedicated to leading the implementation of the Company's simplification initiatives. The team is comprised of members with diverse backgrounds in quality, lean, data analytics, product and process engineering, and culture change management. Simplification includes lean tools to eliminate waste and to provide better value for customers. It also guides customer satisfaction assessments to help identify opportunities to improve the customer experience with the Company. Within the Company's facilities, simplification projects have contributed to manufacturing efficiency gains, materials management improvements, quality enhancements and reduced lead times. Simplification projects have also freed up manufacturing capacity to support production increases.

Engineering, Research and Development

The Company believes its extensive engineering, research and development capabilities have been key drivers of its marketplace success. The Company maintains multiple facilities for new product development and testing with a staff of approximately 1,600 engineers and technicians who are dedicated to improving existing products, development and testing of new vehicles, equipment and components and sustaining its production activities. The Company prepares multi-year new product development and technology plans for each of its markets and measures progress against those plans each month.

Virtually all of the Company's sales of fire apparatus and broadcast vehicles require some level of custom engineering to meet customer specifications and changing industry standards. Engineering is also a critical factor in defense vehicle markets due to the severe operating conditions under which the Company's vehicles are utilized, new customer requirements and stringent government documentation requirements. Product innovation is highly important to meeting customers' changing requirements. Accordingly, in addition to new product development engineers and technicians, the Company maintains an additional permanent staff of engineers and engineering technicians to sustain its production activities.

Recent examples of the Company's product innovation include the DaVinci lift, an all-electric scissor lift that leverages highly sophisticated technology including linear actuators in place of traditional hydraulic cylinders in an elegant design to bring industry defining productivity and serviceability to both rental companies and end users in the access equipment market. The Company's Fire & Emergency segment introduced the revolutionary Volterra platform of electric vehicles to meet the critical needs of fire departments while providing the operational performance customers expect from Pierce fire apparatus. The Volterra platform offers zero emissions, reduced noise, an electro-mechanical infinitely variable transmission (EMIVT), integrated onboard batteries and industry-leading operational range for full-shift operation. The Volterra is available as both a customer pumper for municipal applications and an ARFF vehicle.

Competition

In all of the Company's segments, competitors include smaller, specialized manufacturers as well as large, mass producers. The Company believes that, in its purpose-built vehicle and equipment markets, it has been able to effectively compete against large, mass producers due to its product quality, manufacturing flexibility, purchasing power and distribution networks. In addition, the Company believes it has competitive advantages over smaller vehicle and equipment manufacturers due to volumes that offer purchasing power, technology and manufacturing sharing opportunities across product lines. The Company believes that its competitive cost structure, strategic global purchasing capabilities, engineering expertise, product quality and global distribution and service systems have enabled it to compete effectively.

Certain of the Company's competitors have greater financial, marketing, manufacturing, distribution and governmental affairs resources than the Company. There can be no assurance that the Company's products will continue to compete effectively with the products of competitors or that the Company will be able to retain its customer base or improve or maintain its profit margins on sales to its customers, all of which could have a material adverse effect on the Company's financial condition, results of operations and cash flows.

Access Equipment segment. JLG operates in the global construction, maintenance and industrial equipment markets. JLG's competitors range from some of the world's largest multi-national construction equipment manufacturers to small single-product niche manufacturers. Within this global market, competition for sales of aerial work platform equipment includes Genie Industries, Inc. (a subsidiary of Terex Corporation), Skyjack Inc. (a subsidiary of Linamar Corporation), Haulotte Group, Xuzhou Construction Machinery Group Co., Ltd. (XCMG), Zhejiang Dingli Machinery Co., Ltd. and numerous other manufacturers. Global competition for sales of telehandler equipment includes J C Bamford Excavators Ltd., the Manitou Group, Merlo SpA, Genie Industries, Inc., Haulotte Group, Skyjack Inc. and numerous other manufacturers. In addition, JLG faces competition from numerous manufacturers of other niche products such as boom vehicles, cherry pickers, skid steer loaders, mast climbers, straight mast and vehicle-mounted fork-lifts, rough-terrain and all-terrain cranes, vehicle-mounted cranes, portable material lifts, various types of material handling equipment, scaffolding and the common ladder that offer functionality that is similar to or overlaps that of JLG's products. Principal methods of competition include brand awareness, product innovation and performance, price, quality, service and support, product availability and the extent to which a company offers single-source customer solutions. The Company believes its competitive strengths include: premium brand names; broad and single-source product offerings; product quality; product residual values that are generally higher than competitors' units; worldwide distribution; safety record; service and support network; global procurement scale; and extensive manufacturing capabilities.

The principal competitor for Jerr-Dan-branded products is Miller Industries, Inc. Principal methods of competition for carriers, wreckers and rotators include product quality and innovation, product performance, price and service. The Company believes its competitive strengths in this market include its high quality, innovative and high-performance product line and its cost competitive manufacturing capabilities.

Defense segment. Oshkosh Defense produces heavy- and medium-payload, Mine Resistant Ambush Protected (MRAP) and light-payload tactical wheeled vehicles for the military and security forces around the world and postal delivery vehicles for the USPS. Competition for sales of these vehicles includes, among others, Navistar Defense LLC (a subsidiary of Cerberus Capital Management, LP), General Dynamics Corporation, AM General LLC (a subsidiary of KPS Capital Partners, LP), BAE Systems plc, General Motors Defense, Utilimaster (a subsidiary of The Shyft Group), Morgan Olson (a subsidiary of JB Poindexter & Co., Inc.), Workhorse Group and Rivian. The principal method of competition in the Defense segment involves a competitive bid process that takes into account factors as determined by the customer, such as price, product performance, product lifecycle costs, small and disadvantaged business participation, product quality, adherence to bid specifications, production capability, project management capability, past performance and product support. Usually, the Company's vehicle systems must also pass extensive testing. The Company believes that its competitive strengths include: strategic global purchasing capabilities; extensive pricing/costing and defense contracting expertise; a significant installed base of vehicles currently in use throughout the world; flexible and high-efficiency vertically-integrated manufacturing capabilities; patented and/or proprietary vehicle components such as the TAK-4 family of independent suspension systems, Oshkosh power transfer cases and Command Zone integrated vehicle diagnostics; weapons and communications integration; ability to develop new and improved product capabilities responsive to the needs of its customers; product quality; and aftermarket parts sales and service capabilities.

The Weapon Systems Acquisition Reform Act requires competition for defense programs in certain circumstances. Accordingly, it is possible that the U.S. Army and U.S. Marine Corps will conduct competitions for programs for which the Company currently has contracts upon the expiration of the existing contracts. Competition for these and other domestic programs could result in future contracts being awarded based upon different competitive factors than those described above and would primarily include price, production capability and past performance. The U.S. government has become more aggressive in seeking to acquire the design rights to the Company's current and potential future programs to facilitate competition for manufacturing our vehicles. The willingness of the bidders to license their design rights to the DoD was an evaluation factor in the JLTV and FMTV A2 contract competitions. Certain of the Company's contracts with the DoD, including the JLTV and FMTV A2 contracts, require that the Company effectively transfer the "technical know-how" necessary to produce and support the vehicles and/or other deliverables within the contract to the customer.

The Competition in Contracting Act requires competition for U.S. defense programs in most circumstances. Competition for DoD programs currently supplied by the Company could result in the U.S. government awarding future contracts to another manufacturer or the U.S. government awarding the contracts to the Company at lower prices and operating margins than the Company experiences under current contracts.

The Company's principal competitors for snow removal vehicle sales are M-B Companies, Inc. (owned by Aebi Schmidt Holding AG), Wausau-Everest LP (owned by Alamo Group, Inc.) and Overaasen AS. Principal methods of competition are product performance, price, service, product quality and innovation. The Company believes its competitive strengths in these airport markets include its high-quality, innovative products and a strong service support network.

Fire & Emergency segment. The Company produces and sells custom and commercial firefighting vehicles in the U.S. and abroad under the Pierce and Maxi-Metal brands and broadcast and command vehicles in the U.S. and abroad under the Frontline brand. Competitors for firefighting vehicles include Rosenbauer International AG; E-One, Inc., Ferrara Fire Apparatus, Inc., Spartan ER, and Kovatch Mobile Equipment Corp. (all four owned by REV Group, Inc.); and numerous smaller, regional manufacturers. Principal methods of competition include brand awareness, ability to meet or exceed customer specifications, price, the extent to which a company offers single-source customer solutions, product innovation, product quality, dealer distribution, and service and support. The Company believes that its competitive strengths include: recognized, premium brand name; nationwide network of independent Pierce dealers; extensive, high-quality and innovative product offerings, which include single-source customer solutions for aerials, pumpers and rescue units; large-scale and high-efficiency custom manufacturing capabilities; and proprietary technologies such as the PUC vehicle configuration, TAK-4 independent suspension system, Hercules and Husky foam systems, Command Zone electronics, Volterra parallel-electric drivetrain and the Ascendant family of aerial fire trucks. The main competitor for broadcast vehicles is Accelerated Media Technologies. The principal competition for command vehicles is LDV, Inc., MBF Industries, Inc., Nomad Global Communication Solutions, Incorporated, Farber Specialty Vehicles, Inc. and Matthews Specialty Vehicles, Inc.

Airport Products manufactures ARFF vehicles for sale in the U.S. and abroad. Oshkosh's competitors for ARFF vehicle sales are Rosenbauer International AG and E-One, Inc.

Commercial segment. McNeilus produces refuse collection vehicles for North America and international markets. Competitors include The Heil Company (a subsidiary of Dover Corporation), New Way Trucks, Labrie Enviroquip Group (owned by Wynnchurch Capital) and other regional competitors. The principal methods of competition are product quality, product performance, service and price. The Company competes for municipal business and large commercial business in the Americas, which is generally based on lowest qualified bid. The Company believes its competitive strengths in the Americas refuse collection vehicle markets include: strong brand recognition; innovative and comprehensive product offerings; a reputation for high-quality products; ability to offer factory-installed compressed natural gas fuel systems; ability to integrate refuse collection bodies with electric chassis; large-scale and high-efficiency manufacturing; and an extensive network of sales and service centers located throughout the U.S.

The Company also produces front- and rear-discharge concrete mixers for the Americas under the Oshkosh, McNeilus and London brands. Competition for concrete mixer sales includes Beck Industrial, Con-Tech Manufacturing, Inc., Terex Corporation and other regional competitors. Principal methods of competition are price, service, product features, product quality and product availability. The Company believes its competitive strengths include: strong brand recognition; large-scale and high-efficiency manufacturing; extensive product offerings; high product quality; innovative control systems; ability to offer factory-installed compressed natural gas fuel systems; a significant installed base of concrete mixers in use in the marketplace; and its nationwide network of sales and service centers.

IMT is a manufacturer of field service vehicles and truck-mounted cranes for the construction, equipment dealer, building supply, utility, tire service, railroad and mining industries. IMT's principal field service vehicle competition is from Auto Crane Company (owned by Ramsey Industries, Inc.), Stellar Industries, Inc., Maintainer Corporation of Iowa, Inc., the Knapheide Manufacturing Company and other regional companies. Competition in truck-mounted cranes comes primarily from European companies including Palfinger AG, Cargotec Corporation and Fassi Group SpA. Principal methods of competition are product quality, price and service. The Company believes its competitive strengths include its high-quality products, global distribution network and low-cost manufacturing capabilities.

Government Contracts

Approximately 25% of the Company's net sales for fiscal 2022 were made to the U.S. government, a substantial majority of which were under multi-year contracts and programs in the defense vehicle market. Accordingly, a significant portion of the Company's sales are subject to risks specific to doing business with the U.S. government, including uncertainty of economic conditions, changes in government policies and requirements that may reflect rapidly changing military and political developments, the availability of funds and the ability to meet specified performance thresholds. Multi-year contracts may be conditioned upon continued availability of congressional appropriations and are impacted by uncertainty regarding federal budget pressures. Variances between anticipated budget and congressional appropriations may result in a delay, reduction or termination of these contracts.

Oshkosh Defense's sales are substantially dependent upon periodic awards of new contracts, the purchase of base vehicle quantities and the exercise of options under existing contracts. The funding of U.S. government programs is subject to an annual congressional budget authorization and appropriation process. In years when the U.S. government has not completed its budget process before the end of its fiscal year, government operations are typically funded pursuant to a "continuing resolution", which allows federal government agencies to operate at spending levels approved in the previous budget cycle but does not authorize new spending initiatives. When the U.S. government operates under a continuing resolution, delays can occur in the procurement of the products, services and solutions that Oshkosh Defense provides and may result in new initiatives being delayed or canceled, or funds could be reprogrammed away from Oshkosh Defense's programs to pay for higher priority operational needs. In years when the U.S. government fails to complete its budget process or to provide for a continuing resolution, a federal government shutdown may result. This could in turn result in the delay or cancellation of key programs, which could have a negative effect on the Company's cash flows and adversely affect the Company's future results. In addition, payments to contractors for services performed during a federal government shutdown may be delayed, which would have a negative effect on the Company's cash flows.

Contract awards that Oshkosh Defense receives may be subject to protests by competing bidders. These protests, if successful, could result in the customer revoking part or all of any defense contract it awards to Oshkosh Defense and an inability on the part of Oshkosh Defense to recover amounts it has expended during the protest period in anticipation of initiating work under any such contract.

Under firm, fixed-price contracts with the U.S. government, the price paid to the Company is generally not subject to adjustment to reflect the Company's actual costs, except costs incurred as a result of contract changes ordered by the U.S. government. The Company generally attempts to negotiate with the U.S. government the amount of increased compensation to which the Company is entitled for government-ordered changes that result in higher costs. If the Company is unable to negotiate a satisfactory agreement to provide such increased compensation, then the Company may file an appeal with the Armed Services Board of Contract Appeals or the U.S. Claims Court. The Company has no such appeals pending. The Company seeks to mitigate risks with respect to fixed-price contracts by executing firm, fixed-price contracts where possible with its suppliers of significant components for the duration of the Company's contracts.

U.S. government contracts generally permit the government to terminate a contract, in whole or part, at the government's convenience. If the U.S. government exercises its rights under this clause the contractor is entitled to payment for the allowable costs incurred and a reasonable profit on the work performed to date. The U.S. government can also terminate a contract for default. If a contract is terminated for default, the contractor is generally entitled to payment for work that has been accepted by the U.S. government. Termination for default may expose the Company to loss on work not yet accepted by the government and have a negative impact on the Company's ability to obtain future orders and contracts. The U.S. government's right to terminate its contracts has not had a material effect on the operations or financial condition of the Company.

The Company, as a U.S. government contractor, is subject to financial audits and other reviews by the U.S. government relating to the performance of, and the accounting and general practices relating to, U.S. government contracts. Like most large government contractors, the Company is audited and reviewed by the government on a continual basis. Costs and prices under such contracts may be subject to adjustment based upon the results of such audits and reviews. Additionally, such audits and reviews can lead to civil, criminal or administrative proceedings. Such proceedings could involve claims by the government for fines, penalties, compensatory and treble damages, restitution and/or forfeitures. Under government regulations, a company or one or more of its subsidiaries can also be suspended or debarred from government contracts, or lose its export privileges based on the results of such proceedings. The Company believes that the outcome of all such audits and reviews that are now pending will not have a material effect on its financial condition, results of operations or cash flows.

Suppliers

The Company is dependent on its suppliers and subcontractors to meet commitments to its customers, and many components are procured or subcontracted on a sole-source basis with a number of domestic and foreign companies. Components for the Company's products are generally available from a number of suppliers, although the transition to a new supplier may require several months to conclude. The Company purchases chassis components, such as vehicle frames, engines, transmissions, radiators, axles, tires, drive motors, bearings and hydraulic components and vehicle body options, such as cranes, cargo bodies and trailers, from third-party suppliers. These body options may be manufactured specific to the Company's requirements; however, most of the body options could be manufactured by other suppliers or the Company itself. Through reliance on this supply network for the purchase of certain components, the Company is able to reduce many of the pre-production and fixed costs associated with the manufacture of these components and vehicle body options. The Company purchases a large amount of fabrications and outsources certain manufacturing services, each generally from small companies located near its facilities. While providing low-cost services and product surge capability, such companies often require additional management attention during difficult economic conditions or contract start-up. The Company also purchases complete vehicle chassis from truck chassis suppliers in its Commercial segment and, to a lesser extent, in its Fire & Emergency and Access Equipment segments. Increasingly, the Company is sourcing components globally, which may involve additional inventory requirements and introduces additional foreign currency exposures. The Company maintains an extensive qualification, on-site inspection, assistance and performance measurement system to attempt to control risks associated with reliance on suppliers. The Company occasionally experiences problems with supplier and subcontractor performance and component, chassis and body availability and must identify alternate sources of supply and/or address related warranty claims from customers.

While the Company purchases many costly components such as chassis, engines and transmissions, it manufactures certain proprietary components and systems. These components include front drive steer axles, transfer cases, transaxles, cabs, the TAK-4 independent suspension system, Hercules and Husky compressed air foam systems, the Command Zone vehicle control system, body structures and many smaller parts that add uniqueness and value to the Company's products. The Company believes controlling the production of these components provides a significant competitive advantage and also serves to reduce the production costs of the Company's products.

Intellectual Property

Patents and licenses are important in the operation of the Company's business. One of management's objectives is developing proprietary components to provide the Company's customers with advanced technological solutions at attractive prices. The Company believes patents for the TAK-4 and TAK-4i independent suspension systems provide the Company with a competitive advantage in the Defense and Fire & Emergency segments due to its performance and cost. In the Defense segment, the TAK-4 or TAK-4i independent suspension systems have been incorporated into the U.S. Marine Corps' MTVR and LVSR programs, the U.S. Army's PLS A1 program, the MRAP-Joint Program Office M-ATV program, the JLTV program and the FMTV A2 program. In the Fire & Emergency segment, TAK-4 independent suspension systems are standard on many Pierce custom fire trucks and Global Striker ARFF vehicles.

As part of the Company's long-term alliance with Caterpillar Inc., the Company acquired a non-exclusive, non-transferable worldwide license to use certain Caterpillar Inc. intellectual property through 2024 in connection with the design and manufacture of Caterpillar Inc.'s current telehandler products. Additionally, Caterpillar Inc. assigned to JLG certain patents and patent applications relating to the Caterpillar-branded telehandler products.

The Company holds trademarks for “Oshkosh,” “Oshkosh Defense,” “TAK-4,” “ProPulse,” “JLG,” “SkyTrak,” “Pierce,” “Maxi-Metal,” “McNeilus,” “Jerr-Dan,” “London,” “IMT,” “Pratt Miller,” “DaVinci” and “Volterra” among others. These trademarks are considered to be important to the future success of the Company’s business.

Environmental Matters

The Company is subject to a wide variety of local, state, and federal environmental laws in the U.S., as well as in other countries where the Company conducts business. Our facilities, operations and products are subject to increasingly stringent environmental laws and regulations globally, including laws and regulations governing air emissions, noise, releases to soil and discharges to water and the generation, handling, storage, transportation, treatment, and disposal of non-hazardous and hazardous waste materials. Some environmental laws impose strict, retroactive, and joint and several liability for the release of hazardous substances, even for conduct that was lawful at the time it occurred, or for the conduct of, or conditions caused by prior operators, predecessors or other third parties. With respect to acquired properties and businesses, the Company conducts due diligence into potential exposure to environmental liabilities but cannot be certain that it has identified or will identify all adverse environmental conditions.

We believe that our policies, practices, and procedures are properly designed to prevent unreasonable risk of environmental damage and the consequent financial liability to the Company. Nevertheless, we could incur substantial costs as a result of non-compliance with or liability for cleanup or other costs or damages under environmental laws. Also, we may be subject to other more stringent environmental laws in the future. If more stringent environmental laws are enacted in the future, these laws could have a material adverse impact on our business, results of operations, and financial condition.

Human Capital Management

As of December 31, 2022, the Company had approximately 15,000 employees, approximately 9,000 of whom are production employees. The Company tracks its human capital management performance by measuring numerous relevant elements relating to its employees, including but not limited to, safety and diversity and inclusion.

The United Auto Workers (UAW) Union represented approximately 1,425 production employees at the Company’s Oshkosh, Wisconsin facilities; the Boilermakers, Iron Shipbuilders, Blacksmiths and Forgers Union (Boilermakers) represented approximately 175 employees at the Company’s Kewaunee, Wisconsin facility; and the International Brotherhood of Teamsters Union (Teamsters) represented approximately 120 employees at the Company’s Garner, Iowa facility. The Company’s agreement with the UAW expires in September 2027. The Company’s five-year agreement with the Boilermakers expires in May 2027. The Company’s three-year agreement with the Teamsters extends through October 2023. In addition, approximately 60% of the Company’s 2,300 employees located outside of the U.S. are represented by separate works councils or unions.

People First Culture. The Company maintains a People First culture that includes investing in team members’ safety, engagement, wellbeing, and personal and professional development, as well as diversity and inclusion. The Company believes its People First culture is a strength, and the Company intends to continue building upon that culture to drive long-term, sustainable performance across the business. In 2022, 64% of global production and office team members participated in the Company’s Global Engagement Survey. Engagement across the enterprise was 7.3 out of 10.

The Company expects all team members to adhere to the highest ethical standards every day. The Company’s Code of Ethics & Conduct, also known as The Oshkosh Way, lays out the Company’s core values and standards for ethical behavior.

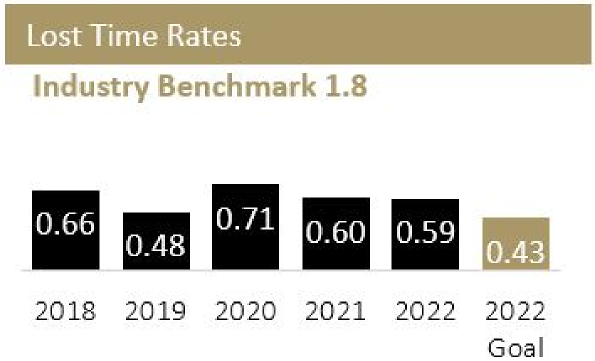
The Company’s connections to its communities through charitable giving, leadership and volunteering efforts have long been an important part of the Company’s culture and team member engagement. The Company’s teams creatively identified opportunities to volunteer in 2022 donating over 18,000 hours to the communities in which they live and work.

For the last nine years, the Company has held the Oshkosh Excellence Awards (OEAs), an annual competition and recognition event that invites team members to submit innovative ideas to foster improvements for its culture, operations, products and customers. Over 500 nominations were submitted in 2022, with 36% focused on Cheers to Peers, our peer recognition program, highlighting the Company’s team members’ commitment to putting people first.

Talent and Learning. The Company's business strategy is enabled by its ability to attract, develop and retain world-class talent. In 2022, the Company returned to in person leadership development, relaunching Lens of Leadership, its signature development program for team members at the director level and above. The Company continued a series of executive leadership development events and expanded virtual learning opportunities to all managers on topics of engagement, performance, diversity, equity and inclusion. Team members of the Company logged over 74,000 learning hours in 2022.

The Company recently upgraded its enterprise Learning Management System to enable all team members to access learning content on its technology platform. Strategic succession planning, future leader pipelines and critical role depth were reviewed and updated during 2022. All leaders are expected to complete regular check-ins to provide feedback, review annual goal progress and hold career development conversations with team members to help ensure alignment, drive engagement and facilitate strong business outcomes.

Health and Safety. The Company focuses on protecting the health and safety of its team members. The Company takes a proactive approach to managing safety, is committed to achieving zero workplace injuries and has consistently improved its safety performance over the past few years. Safety Management System maturity, OSHA VPP Star progression, ergonomic advancements and strong safety collaboration have led to year over year improvements in risk mitigation and injury rate reductions.



The Company offers a competitive, inclusive and empowering benefit platform to help ensure that no matter where team members are in their wellbeing journey, they are supported in their physical, financial and emotional goals. In 2022, the Company cared for over 24,000 team members and their families on its medical plan. The Company introduced expanded fertility and family planning benefits to support team members as they grow their families. In addition, the Company supported team members' return to health care post-COVID pandemic by providing a financial incentive to complete an annual preventive exam.

The Company has set several goals and benchmarks for Diversity, Equity and Inclusion (DEI) performance, using both internal goals and federal standards. The Company's diversity representation is published in its 2022 Sustainability Report and the Company is driving proactive programs to improve its diverse employee representation. The Company measures diverse hires for full-time U.S. non-production positions and has a goal that 50% of such hires be diverse in any given year. Diverse hires include ethnicity, gender, veteran and disability status. In 2022, 49% of the Company's hires for full-time U.S. non-production positions were diverse.

Seasonal Nature of Business

In the Company's Access Equipment and Commercial segments, business tends to be seasonal with an increase in sales occurring in the spring and summer months that constitute the traditional construction season in the northern hemisphere. In addition, sales are generally lower in the three months ended December 31 in all segments due to the relatively high number of holidays in the United States, which reduce available production and shipping days.

Available Information

The Company maintains a website with the address www.oshkoshcorp.com. The Company is not including the information contained on the Company's website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K. The Company makes available free of charge (other than an investor's own Internet access charges) through its website its Annual Report on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and amendments to these reports, as soon as reasonably practicable after the Company electronically files such materials with, or furnishes such materials to, the Securities and Exchange Commission (SEC).

ITEM 1A. RISK FACTORS

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

Business and Operational Risks

We are dependent upon third-party suppliers, making us vulnerable to supply shortages and price increases.

We have experienced, and in the future are likely to experience, significant disruption or termination of the supply of some of our parts, materials, components and final assemblies that we obtain from suppliers or subcontractors. For example, the rapid increase in demand in the U.S. economy and periodic localized lockdowns in parts of the world resulting from spikes in novel coronavirus (COVID-19) infection rates has caused, and is expected to continue to cause, significant stress on global supply chains. In addition, the war in Ukraine has caused and is likely to cause further strains in the global supply chain. Delays in obtaining parts, materials, components and final assemblies may result from a number of factors affecting our suppliers including capacity constraints, supplier product quality issues, suppliers' impaired financial condition and suppliers' allocations to other purchasers. Such disruptions have resulted and could further result in manufacturing inefficiencies caused by us having to wait for parts to arrive on production lines, could delay sales and could result in a material adverse effect on our results of operations, financial condition, and/or cash flows.

We are dependent on our suppliers of engines, chassis and other power sources to continue to timely deliver such components that meet applicable emissions regulations and customer preferences. If we fail to have adequate relationships with suppliers that will supply appropriate engines, chassis and powertrain components to us or fail to timely receive appropriate components from our suppliers, that could result in our being placed in an uncompetitive position or without finished product when needed.

Fluctuations in prices of raw materials and other inputs may adversely impact our results.

We purchase, directly and indirectly through component purchases, significant amounts of steel, aluminum and other commodities. Steel, aluminum, and other commodity prices have historically been highly volatile. Costs for these items may continue to increase and/or remain elevated in the future due to one or more of the following: a sustained economic recovery, the level of tariffs that the U.S. imposes on imported steel and aluminum, the outbreak of war or other hostilities in regions of the world that produce the commodities or raw materials that go into the commodities or a weakening U.S. dollar.

In addition, the cost of parts, materials, components or final assemblies has increased and may continue to significantly increase for reasons other than changes in commodity prices, including the significant inflation that we are currently experiencing. Factors such as supply and demand, freight costs, availability of transportation, availability of labor, inventory levels, the level of imports, the imposition of duties and tariffs and other trade barriers and general economic conditions may affect the price of our parts, materials, components or final assembly purchases.

Increases in parts, materials, components or final assemblies costs negatively impact the profitability of orders in backlog as prices on a portion of those orders are fixed. If we are not able to recover cost increases through surcharges or permanent price increases to our customers, then such increases will have an adverse effect on our financial condition, profitability and/or cash flows. Furthermore, surcharges and permanent price increases may not be accepted by our customers, resulting in them choosing to order from our competitors instead of us or delaying orders to us. Any significant decrease in orders could have an adverse effect on our financial condition, profitability and/or cash flows. Additionally, if costs decrease and we are unable to negotiate timely component cost decreases commensurate with any decrease in costs, then our higher component costs could put us at a material disadvantage as compared to our competition which could have a material adverse effect on our net sales, financial condition, profitability and/or cash flows.

Our dependency on contracts with U.S. and foreign government agencies subjects us to a variety of risks that could materially reduce our revenues or profits.

We are dependent on U.S. and foreign government contracts for a substantial portion of our business. Approximately 25% of our sales in fiscal 2022 were to the U.S. government. That business is subject to the following risks, among others, that could have a material adverse effect on our operating performance:

- The Weapon Systems Acquisition Reform Act and the Competition in Contracting Act require competition for U.S. defense programs in most circumstances. Competition for DoD programs that we currently have has resulted and could in the future result in the U.S. government awarding future contracts to another manufacturer or could result in the U.S. government awarding the contracts to us at lower prices and operating margins than we experience under the current contracts. As an example, in February 2022, the U.S. Army released a request for proposal for the re-compete of the production contract for the JLTV Family of Vehicles. The DoD conducted a full and open competition for the follow-on production in which Oshkosh Defense participated. In February 2023, the DoD awarded the JLTV follow on contract to another company. JLTV accounted for sales of $1.33 billion in fiscal 2022.

- Competitions for U.S. government contracts are intense, and we cannot provide any assurance that we will be successful in current or future procurement competitions in which we participate, as evidenced by the recent award of the JLTV follow on contract to another company. In addition, the U.S. government has become more aggressive in seeking to acquire the design rights to the Company's current and potential future programs to facilitate competition for manufacturing our vehicles. The willingness of bidders to license their design rights to the DoD was an evaluation factor in the JLTV and FMTV A2 competitions.

- Most of our contracts with the DoD are multi-year firm, fixed-price contracts. These contracts typically contain annual sales price increases. Under the current JLTV contract, we bear the risk of material, labor and overhead cost escalation for the full duration of the contract, which is longer than our historical defense contracts. We attempt to limit the risk related to raw material price fluctuations on prices for major defense components by obtaining firm pricing from suppliers at the time a contract is awarded. However, if these suppliers do not honor their contracts, then we could face margin pressure. Furthermore, if our actual costs on any of these contracts exceed our projected costs, it could result in profits lower than historically realized or than we anticipate or net losses under these contracts.

- Our business is susceptible to changes in the annual U.S. defense budget. Such changes may reduce revenues that we expect in our Defense segment, especially in light of federal budget pressures, lower levels of U.S. ground troops deployed in foreign conflicts and the level of defense funding that will be allocated to the DoD's tactical wheeled vehicle strategy generally.

- The U.S. government may not budget for or appropriate funding that we expect for our U.S. government contracts, which may prevent us from realizing revenues under current contracts or receiving additional orders that we anticipate we will receive. The DoD could also seek to reprogram certain funds originally planned for the purchase of vehicles we manufacture under the current defense budget allocations. The U.S. Army has identified its top modernization and readiness priorities and has re-programmed funds away from the Company's JLTV program to support its modernization and readiness priorities and may re-program additional funds in the future.

- The funding of DoD programs is subject to an annual congressional budget authorization and appropriations process. In years when the U.S. government has not completed its budget process before the end of its fiscal year, government operations are typically funded pursuant to a "continuing resolution," which allows federal government agencies to operate at spending levels approved in the previous budget cycle but does not authorize new spending initiatives. When the U.S. government operates under a continuing resolution, delays can occur in the procurement of the products, services and solutions that we provide and may result in new initiatives being delayed or canceled, or funds could be reprogrammed away from our programs to pay for higher priority operational needs. Furthermore, in years when the U.S. government fails to complete its budget process or to provide for a continuing resolution, a federal government shutdown may result. This could in turn result in the delay or cancellation of key programs, which could have a negative effect on our cash flows and adversely affect our future results. In addition, payments to contractors for services performed during a federal government shutdown may be delayed, which would have a negative effect on our cash flows.

- Certain of our U.S. government contracts could be delayed or terminated, and all such contracts expire in the future and may not be replaced, which could reduce revenues that we expect under the contracts and negatively affect margins in our Defense segment.

- Defense tactical wheeled vehicles contract awards that we receive may be subject to protests or lawsuits by competing bidders, which protests or lawsuits, if successful, could result in the U.S. government customer revoking part or all of any defense tactical wheeled vehicle contracts it awards to us and our inability to recover amounts we have expended in anticipation of initiating production under any such contract.

- We must spend significant sums on product development and testing, bid and proposal activities, and pre-contract engineering, tooling and design activities in competitions to have the opportunity to be awarded these contracts.

- As a U.S. government contractor, our DoD contracts and systems are subject to audit and review by the Defense Contract Audit Agency and the Defense Contract Management Agency. These agencies review our performance under our U.S. government contracts, our cost structure and our compliance with laws and regulations applicable to U.S. government contractors. Systems that are subject to review include, but are not limited to, our accounting systems, estimating systems, material management systems, earned value management systems, purchasing systems and government property systems. If improper or illegal activities, errors or system inadequacies come to the attention of the U.S. government, as a result of an audit or otherwise, then we may be subject to civil and criminal penalties, contract adjustments and/or agreements to upgrade existing systems as well as administrative sanctions that may include the termination of our U.S. government contracts, forfeiture of profits, suspension of payments, fines and, under certain circumstances, suspension or debarment from future U.S. government contracts for a period of time. Whether or not illegal activities are alleged and regardless of materiality, the U.S. government also has the ability to decrease or withhold certain payments when it deems systems subject to its review to be inadequate. These laws and regulations affect how we do business with our customers and, in many instances, impose added costs on our business.

- Our Defense segment results may fluctuate significantly from time to time as a result of the start and completion of existing and new domestic and international contract awards that we may receive. A majority of our contracts in the Defense segment are large in size and require significant personnel and production resources, and when our government customers allow such contracts to expire or significantly reduce their vehicle requirements under such contracts, we must make adjustments to personnel and production resources.

- We periodically experience difficulties with sourcing sufficient vehicle carcasses from the U.S. military to maintain our defense tactical wheeled vehicles remanufacturing schedule, which can create uncertainty and inefficiencies for this area of our business.

Our markets are highly cyclical. Declines in these markets could have a material adverse effect on our operating performance.

The access equipment market is highly cyclical and impacted (i) by the strength of economies in general and customers' perceptions concerning the timing of economic cycles, (ii) by residential and non-residential construction spending, (iii) by the ability of rental companies to obtain third-party financing to purchase revenue generating assets, (iv) by capital expenditures of rental companies in general, including the rate at which they replace aged rental equipment, which is impacted in part by historical purchase levels, (v) by the timing of regulatory standard changes, and (vi) by other factors, including oil and gas related activity. Refuse collection vehicle markets are also cyclical and impacted by the strength of economies in general, by municipal tax receipts and by the size and timing of capital expenditures, including replacement demand, by large waste haulers. The ready-mix concrete market that we serve is highly cyclical and impacted by the strength of the economy generally, by the number of housing starts and by other factors that may have an effect on the level of concrete placement activity, either regionally or nationally. Fire & emergency markets are cyclical later in an economic cycle and are impacted by the economy generally and by municipal tax receipts and capital expenditures. If demand for our products is lower than what we or the market expect, due to a recession or other factors, then there could be an adverse effect on our net sales, financial condition, profitability and/or cash flows.

Labor issues may adversely impact our results.

Our production could be disrupted by labor issues including, absenteeism, public health issues (e.g., COVID-19), stay-at-home orders, availability of skilled workforce in locations we operate due to competition or other factors. In addition, our production schedules assume the availability of sufficient workforce in areas that our facilities operate at anticipated labor rates. If sufficient workforce is not available or rates are higher than we anticipate, it could have an adverse effect on our sales, financial condition, profitability and/or cash flow.

The USPS may not purchase quantities from us that we expect.

In February 2021, the USPS notified us that it selected us to build its NGDV. The IDIQ contract allows for the purchase of up to 165,000 units over 10 years. To date, we have received orders for the engineering to finalize the production vehicle design, for tooling and factory build-out activities that are necessary prior to vehicle production and for the first 50,000 vehicles. The USPS contract and our performance under the contract are subject to the following risks, among others, that could have a material adverse effect on our operating performance:

- Budget constraints facing the USPS and continuously changing demands for postal services may result in the USPS ordering fewer units than we expect the USPS to award to us under the contract.
- Engineering time to finalize the production vehicle design may be greater than we anticipate.
- Tooling and factory build-out activities that we must complete prior to production may be greater than we anticipate.
- Costs and other challenges associated with recruiting and training a new workforce may be greater than we anticipate.

Our results could be adversely affected by severe weather, natural disasters, and other events in the locations in which we or our customers or suppliers operate.

We have manufacturing and other operations in locations prone to severe weather and natural disasters, including earthquakes, floods, hurricanes or tsunamis that could disrupt our operations. Our suppliers and customers also have operations in such locations. Epidemics and pandemics, such as COVID-19, could also affect our operations or those of our suppliers or customers, which could disrupt our operations. Severe weather, a natural disaster or other conditions or events that result in a prolonged disruption to our operations, or the operations of our customers or suppliers could delay delivery of parts, materials or components to us or sales to our customers and could have a material adverse effect on our net sales, financial condition, results of operations and/or cash flows.

Disruptions within our dealer network could adversely affect our business.

Although we sell the majority of our products directly to the end user, we market, sell and service products through a network of independent dealers in the Fire & Emergency segment and in a limited number of markets for the Access Equipment and Commercial segments. As a result, our business with respect to these products is influenced by our ability to establish and manage new and existing relationships with dealers. While we have relatively low turnover of dealers, from time to time, we or a dealer may choose to terminate the relationship as a result of difficulties that our independent dealers experience in operating their businesses due to economic conditions or other factors, or as a result of an alleged failure by us or an independent dealer to comply with the terms of our dealer agreement. We do not believe our business is dependent on any single dealer, in which the loss would have a sustained material adverse effect upon our business. However, disruption of dealer coverage within a specific state or other geographic market could cause difficulties in marketing, selling or servicing our products and have an adverse effect on our net sales, financial condition, results of operations and/or cash flows.

In addition, our ability to terminate our relationship with a dealer is limited due to state dealer laws, which generally provide that a manufacturer may not terminate or refuse to renew a dealer agreement unless it has first provided the dealer with required notices. Under many state laws, dealers may protest termination notices or petition for relief from termination actions. Responding to these protests and petitions may cause us to incur costs and, in some instances, could lead to litigation resulting in lost opportunities with other dealers or lost sales opportunities, which may have an adverse effect on our net sales, financial condition, results of operations and/or cash flows.

Consolidation within our customer and dealer bases may impact our strategy, pricing and product margins.

Significant consolidation in our customer and dealer bases could enhance the influence of customers and dealers over our business strategy. Intensified consolidation in the industries we serve may provide our customers and dealers with additional leverage in negotiations around our product and service offerings. For example, the Access Equipment segment’s largest customers are rental companies that serve the end user equipment rental markets. Should larger access equipment customers continue to grow through the acquisition of smaller rental companies, their buying influence may grow and may impact the competitive environment within the industry. Similarly, the Fire & Emergency segment’s distribution channel is comprised of a relatively small number of dealers that if they were to consolidate may create additional pricing pressure, as well as concentrated credit exposures, as our reliance on a smaller group of larger individual dealerships increases. If that trend in customer and dealer consolidation continues, it could have an unfavorable impact on our pricing and product margins.

Competition and Strategy Risks

We face significant competition in the markets we serve.

The markets in which we operate are highly competitive. We compete worldwide with a number of other manufacturers that produce and sell similar products. Our products primarily compete on the basis of brand awareness, product innovation, performance, quality, reliability, availability, price, service and support, ability to meet customer specifications and the extent to which a company offers single-source customer solutions. Certain of our competitors have greater financial, marketing, manufacturing, distribution and governmental affairs resources than we do, which may put us at a competitive disadvantage. We also face pricing pressure from international competitors that attempt to gain domestic market share through importing and selling products at below market prices, particularly in the Access Equipment segment. If competition in our industry intensifies or if our current competitors lower their prices for competing products, we may lose sales or be required to lower the prices we charge for our products. We cannot provide any assurance that our products will continue to compete effectively with the products of competitors or that we will be able to retain our customer base or improve or maintain our profit margins on sales to our customers.

If we are unable to continue to enhance existing products and develop new products that respond to customer needs and preferences, we may experience a decrease in demand for our products and our business could suffer.

One of our growth strategies is emphasizing our new product development as we seek to expand sales and margins by leading our core markets in the introduction of new or improved products and technologies. Our ability to match product improvements and new product offerings to diverse global customers’ anticipated needs for different types of products and various product features and functions, at acceptable prices, is critical to our success. We may not be able to compete as effectively, and ultimately satisfy the needs and preferences of our customers, unless we can continue to improve existing products and develop new innovative products in the global markets in which we compete. While we spent $113 million, $103 million and $104 million for research and development in fiscal 2022, 2021 and 2020, respectively, we cannot provide any assurance that this level of investment in research and development will be sufficient to maintain our competitive strength in product innovation, which could cause our business to suffer. Product improvements and new product introductions also require significant planning, design, development and testing at the technological, product and manufacturing process levels, and we may not be able to timely develop product improvements or new products. Our competitors' new products may arrive in the market before our products arrive and be more attractive with more features and functions and/or lower prices than our products. If we are unable to provide continued technological improvements in our products that meet our customers' or the industry's expectations, then the demand for our products could be adversely affected.

In response to changes in customer preferences concerning global climate changes and related changes in regulations, we face greater pressure to develop products that generate less greenhouse gas emissions. Many manufacturers foresee sales of electric-powered vehicles and mobile equipment becoming increasingly important to their businesses, and we may not have the expertise or resources to successfully address these pressures on a cost-effective basis. While we are developing and offering more propulsion choices in our products, such as electric-powered vehicles or mobile equipment, with lower emissions, this will continue to require us to spend additional funds on product research and development and implementation costs and subject us to the risk that our competitors may respond to these pressures in a manner that gives them a competitive advantage. If we do not accurately predict, prepare for and respond to new kinds of technological innovations with respect to electric-powered vehicles or mobile equipment and other technologies that minimize emissions, competition from others could make our specialty vehicles or mobile equipment less desirable in the marketplace.

We are subject to fluctuations in exchange rates associated with our non-U.S. operations that could adversely affect our results of operations and may significantly affect the comparability of our results between financial periods.

Approximately 12% of our net sales in fiscal 2022 were attributable to products sold outside of the United States, of which approximately 49% involved export sales from the United States. The majority of export sales are denominated in U.S. dollars. Sales that originate outside the United States are typically transacted in the local currencies of those countries. Fluctuations in foreign currency can have an adverse impact on our sales and profits as amounts that are measured in foreign currency are translated back to U.S. dollars. We have sales of inventory denominated in U.S. dollars to certain of our subsidiaries that have functional currencies other than the U.S. dollar. The exchange rates between many of these currencies and the U.S. dollar have fluctuated significantly in recent years and may fluctuate significantly in the future. Such fluctuations, in particular those with respect to the Euro, the Chinese renminbi, the Canadian dollar, the Mexican peso, the Australian dollar and the British pound sterling, may have a material effect on our net sales, financial condition, profitability and/or cash flows and may significantly affect the comparability of our results between financial periods. In addition, any further appreciation in the value of the U.S. dollar in relation to the value of the local currency of those countries where our products are sold will continue to increase our costs of goods in our foreign operations, to the extent such costs are payable in U.S. dollars, and impact the competitiveness of our product offerings in international markets.

We may not be able to expand international operations or increase sales and profitability consistent with our growth targets.

Expanding international operations and sales is a part of our growth strategy. International operations and sales are subject to various risks, including political, religious and economic instability, local labor market conditions, the imposition of foreign tariffs upon our products (which include tariffs in response to tariffs that the U.S. imposes) and other trade barriers, the impact of foreign government regulations and the effects of income and withholding taxes, sporadic order patterns, governmental expropriation, uncertainties or delays in collection of accounts receivable and differences in business practices. We may incur increased costs, including increased supply chain costs, and experience delays or disruptions in production schedules, product deliveries or payments in connection with international manufacturing and sales that could cause loss of revenues and earnings. Among other things, there are additional logistical requirements associated with international sales, which increase the amount of time between the completion of vehicle production and our ability to recognize related revenue. In addition, expansion into foreign markets requires the establishment of distribution networks and may require modification of products to meet local requirements or preferences. Establishment of distribution networks or modification to the design of our products to meet local requirements and preferences may take longer or be more costly than we anticipate and could have a material adverse effect on our ability to achieve international sales growth. In addition, our entry into certain markets that we wish to enter may require us to establish a joint venture or face competition from national state-backed competitors. Identifying an appropriate joint venture partner and creating a joint venture could be more time consuming, more costly and more difficult than we anticipate. Local government policy and influence can also impact international competition, such as in China where state-controlled economy favors local market participants.

We may not be able to execute on our business strategy.

The Company's strategy is grounded in its purpose of making a difference in the lives of those who build, serve, and protect communities around the world. The strategy is reflected in three simple words: Innovate. Serve. Advance. We cannot provide any assurance we will be able to successfully execute our business strategy due to a variety of risks, including our inability to design new products that meet our customers' requirements and bring them to market; higher costs than anticipated to launch new products or delays in new product launches; our inability to expand our aftermarket parts and services availability; and slow adoption of our products in emerging markets and/or our inability to successfully expand into new markets.

We may not realize all of the anticipated benefits of our acquisitions.

We are continuously evaluating potential acquisitions to support our business strategy. As part of this evaluation process, we perform due diligence to identify potential risks associated with the potential transaction. We also make assumptions regarding future performance of the acquired business. We cannot provide any assurance we will be able to successfully achieve the benefits of any business acquisition due to a variety of risks, including the following:

- Our ability to identify acquisition targets and close deals;
- Our failure to achieve the acquisition's assumed future financial performance or realize assumed efficiencies or assumed cost reductions;
- There may be a cultural mismatch that exists between us and the acquired business;
- We may incur unforeseen expenses or liabilities or may be subject to other unanticipated regulatory or government actions related to the acquired business; and
- We may incur higher transaction costs than expected.

<u>**Financial Risks**</u>

We are subject to changes in contract estimates.

We account for substantially all long-term contracts in the Defense segment utilizing the cost to cost method of percentage-of-completion accounting. This accounting requires judgment relative to assessing risks, estimating revenues and costs and making assumptions regarding the timing of receipt of delivery orders from our government customer and technical issues. Due to the size and nature of these contracts, the estimation of total revenues and costs is complicated and subject to many variables. We must make assumptions regarding expected increases in material costs, wages and employee benefits, engineering hours, productivity and availability of labor and allocated fixed costs. Changes to production costs, overhead rates, learning curves and/or supplier performance can also impact these estimates. For instance, cumulative catch-up adjustments on contracts in the Defense segment negatively impacted operating income by $44.9 million in fiscal 2022, primarily as a result of higher anticipated material and logistics costs. Furthermore, under the revenue recognition accounting rules, we can only include units in our estimates of overall contract profitability after we have received a firm delivery order for those units. Because new orders have the potential to significantly change the overall profitability of cumulative orders received to date, particularly early in the contract when fewer overall units are on order, the period in which we receive those orders from the government will impact the estimated life-to-date contract profitability. Changes in underlying assumptions, circumstances or estimates could have a material adverse effect on our net sales, financial condition and/or profitability.

We may experience losses in excess of our recorded reserves for doubtful accounts, finance receivables, notes receivable and guarantees of indebtedness of others.

As of December 31, 2022, we had consolidated gross receivables of $1.18 billion. In addition, we were subject to obligations to guarantee customer indebtedness to third parties of $731.1 million, under which we estimate our maximum exposure to be $121.6 million. We evaluate the collectability of receivables and our guarantees of indebtedness of others based on a combination of factors and establish reserves based on our estimates of potential current and future losses. In circumstances where we believe it is probable that a specific customer will have difficulty meeting its financial obligations, a specific reserve is recorded to reduce the net recognized receivable to the amount we expect to collect, and/or we recognize a liability for a guarantee we expect to pay, taking into account any amounts that we would anticipate realizing if we are forced to repossess the equipment that supports the customer's financial obligations to us. We also establish additional reserves based upon our perception of the quality of the current receivables, the current financial position of our customers, past collections experience, and existing and future market conditions. Prolonged or more severe economic weakness may result in additional requirements for reserves. During periods of economic weakness, the collateral underlying our guarantees of indebtedness of customers or receivables can decline sharply, thereby increasing our exposure to losses. We also face a concentration of credit risk as the Access Equipment segment's ten largest debtors at December 31, 2022 represented approximately 33% of our consolidated gross receivables. Some of these customers are highly leveraged. We may incur losses in excess of our recorded reserves if the financial condition of our customers were to deteriorate or the full amount of any anticipated proceeds from the sale of the collateral supporting our customers' financial obligations is not realized. Our cash flows and overall liquidity may be materially adversely affected if any of the financial institutions that finance our customer receivables become unable or unwilling, due to unfavorable economic conditions, a weakening of our or their financial position or otherwise, to continue providing such credit.

An impairment in the carrying value of goodwill and other indefinite-lived intangible assets could negatively affect our operating results.

We have a substantial amount of goodwill and other indefinite-lived intangible assets on our balance sheet as a result of acquisitions we have completed. At December 31, 2022, approximately 86% of these intangibles were concentrated in the Access Equipment segment. We evaluate goodwill and indefinite-lived intangible assets for impairment at least annually, or more frequently if potential interim indicators exist that could result in impairment. Events and conditions that could result in impairment include a prolonged period of global economic weakness, a decline in economic conditions or a slow, weak economic recovery, a sustained decline in the price of our common stock, adverse changes in the regulatory environment, adverse changes in the market share of our products, adverse changes in interest rates, or other factors leading to reductions in the long-term sales or profitability that we expect. Determination of the fair value of a reporting unit includes developing estimates which are highly subjective and incorporate calculations that are sensitive to minor changes in underlying assumptions. Management's assumptions change as more information becomes available. Changes in these events and conditions or other assumptions could result in an impairment charge in the future, which could have a significant adverse impact on our reported earnings.

Financing costs and restrictive covenants in our current debt facilities could limit our flexibility in managing our business and increase our vulnerability to general adverse economic and industry conditions.

Our credit agreement contains financial and restrictive covenants which, among other things, require us to maintain a leverage ratio. Our ability to meet the leverage ratio may be affected by a number of risks or events, including the risks described in this Annual Report on Form 10-K and events beyond our control. The indentures governing our senior notes also contain restrictive covenants. Any failure by us to comply with these restrictive covenants or the financial and restrictive covenants in our credit agreement could have a material adverse effect on our financial condition, results of operations and debt service capability.

Our access to debt financing at competitive risk-based interest rates is partly a function of our credit ratings. A downgrade to our credit ratings could increase our interest rates, could limit our access to public debt markets, could limit the institutions willing to provide us credit facilities, and could make any future credit facilities or credit facility amendments more costly and/or difficult to obtain. In addition, a portion of our debt is subject to variable interest rates. An increase in general interest rates, as has occurred during the last year, would also increase our cost of borrowing under our credit agreement.

Additional liabilities relating to changes in tax rates or exposure to additional income tax liabilities could adversely impact our financial condition and cash flow.

We are subject to income taxes in the U.S. and various non-U.S. jurisdictions. Our domestic and international tax liabilities are dependent upon the location of earnings among these different jurisdictions. Changes in our effective tax rate as a result of changes in tax laws or regulations and judicial or regulatory interpretations of those laws or regulations, the mix of earnings in countries with differing statutory tax rates, changes in overall profitability, changes in U.S. generally accepted accounting principles, or changes in the valuation of deferred tax assets could adversely affect our future results of operations. In addition, the amount of income taxes that the Company pays is subject to ongoing audits by U.S. federal, state and local tax authorities and by non-U.S. tax authorities. If these audits result in assessments different from amounts that the Company has reserved for potential tax liabilities, future financial results may include unfavorable adjustments to the Company's tax liabilities, which could have a material adverse effect on the Company's results of operations.

Cybersecurity Risks

Increased cybersecurity threats and more sophisticated computer crime pose a risk to our systems, networks, products and services.

As a defense contractor, we face many cyber and security threats that can range from attacks common to most industries, which could have financial or reputational consequences, to advanced persistent threats on our defense programs, which could involve information that is considered a matter of national security. We rely extensively on information technology systems and networks, some of which third parties manage, supporting a variety of business activities. Operating these information technology systems and networks and processing and maintaining related data in a secure manner is critical to our business operations and strategy. Information technology security threats, from user error to cybersecurity attacks designed to gain unauthorized access to our systems, networks and data, are increasing in frequency and sophistication. Cybersecurity attacks may range from random attempts to coordinated and targeted attacks, including sophisticated computer crime and advanced persistent threats. These threats pose a risk to the security of our systems and networks and the confidentiality, availability and integrity of our data. Cybersecurity attacks could also include attacks targeting the security, integrity and/or reliability of the hardware and software that we have installed in our products. It is possible that our information technology systems and networks, or those that third-parties manage or provide, could have vulnerabilities, which could go unnoticed for a period of time. While we have utilized and continue to utilize various procedures and controls to mitigate such risks, we cannot assure that the actions and controls we have implemented and are implementing, or that we cause or have caused third-party service providers to implement, will be sufficient to protect our systems, information or other property. We have experienced cyber security threats and vulnerabilities in our systems and those of our third-party providers, and we have experienced viruses and attacks targeting our information technology systems and networks. Such prior events, to date, have not had a material impact on our financial condition, results of operations or liquidity. However, the potential consequences of a future material cybersecurity attack include reputational damage, litigation with third-parties, government enforcement actions, penalties, disruption to systems, unauthorized release of confidential or otherwise protected information, corruption of data, diminution in the value of our investment in research, development and engineering, and increased cybersecurity protection and remediation costs, which in turn could adversely affect our competitiveness, results of operations and financial condition.

Legal and Regulatory Risks

Our international sales and operations subject us to risks that may have a material adverse effect on our business.

As a result of our international operations and sales, we are subject to the Foreign Corrupt Practices Act (FCPA) and other laws that prohibit improper payments or offers of payments to foreign governments and their officials for the purpose of obtaining or retaining business. Our international activities create the risk of unauthorized payments or offers of payments in violation of the FCPA by one of our employees, consultants, sales agents or distributors, because these parties are not always subject to our control. Any violations of the FCPA could result in significant fines, criminal sanctions against us or our employees, and prohibitions on the conduct of our business, including our business with the U.S. government. We are also increasingly subject to export control regulations, including, without limitation, the United States Export Administration Regulations and the International Traffic in Arms Regulations. Unfavorable changes in the political, regulatory or business climate could have a material adverse effect on our net sales, financial condition, profitability and/or cash flows.

We may be required to make material expenditures or incur additional liabilities to comply with changes in environmental laws, climate change regulations or to meet the increasing societal expectations on companies to address climate change.

Both our products and the operation of our manufacturing facilities are subject to statutory and regulatory requirements. These include environmental requirements applicable to manufacturing and vehicle emissions, government contracting regulations, regulations impacting our supply chain and domestic and international trade regulations. A significant change to these regulatory requirements could substantially increase manufacturing costs, which could make our business results more variable.

Climate change attributed to increased levels of greenhouse gases, including carbon dioxide, has led to significant legislative, regulatory and societal efforts to limit greenhouse gas emissions. These considerations may lead to new international, national, regional, or local legislation or regulatory response. The legislation of greenhouse gases could result in unfavorable financial impact through various forms including taxation, emission allowances, fines, requirements for facilities improvement investment and higher energy costs. The impact of any future greenhouse gas legislation, regulatory, or product standard requirements is unknown, and therefore, we are uncertain of the potential impact that future changes may have.

Our global facilities, operations and products are subject to increasingly stringent environmental laws and regulations, including laws and regulations governing air emissions, noise, releases to soil and discharges to water and the generation, handling, storage, transportation, treatment, and disposal of non-hazardous and hazardous waste materials. Certain environmental laws impose strict, retroactive, and joint and several liability for the release of hazardous substances, even for conduct that was lawful at the time it occurred, or for the conduct of, or conditions caused by, prior operators, predecessors or other third parties. We could be subject to fines, cleanup costs or other costs or damages under environmental laws if we are not in compliance with environmental regulations. We may be subject to other more stringent environmental laws in the future that could have a material adverse impact on our business, results of operation, and financial condition.

ITEM 1B. UNRESOLVED STAFF COMMENTS

The Company has no unresolved staff comments regarding its periodic or current reports from the staff of the SEC that were issued 180 days or more preceding December 31, 2022.

ITEM 2. PROPERTIES

The Company believes its equipment and buildings are well maintained and adequate for its present and anticipated needs. As of December 31, 2022, the Company operated in 29 manufacturing facilities. The locations of the Company's manufacturing facilities are provided in the table below:

Segment	Location (# of facilities)	Segment	Location (# of facilities)
Access Equipment	McConnellsburg, Pennsylvania (3) [(a)]	**Fire & Emergency**	Appleton, Wisconsin (2)
	Shippensburg, Pennsylvania (1)		Bradenton, Florida (1)
	Greencastle, Pennsylvania (1)		Kewaunee, Wisconsin (1)
	Tianjin, China (2) [(c)]		Clearwater, Florida (1) [(b)]
	Tonneins, France (1) [(b)]		Neenah, Wisconsin (1) [(b)]
	Port Macquarie, Australia (1)		Saint-Georges, Quebec, Canada (1)
	Leicester, United Kingdom (1)		
	Bedford, Pennsylvania (1)	**Commercial**	Dodge Center, Minnesota (1)
	Leon, Mexico (1)		Garner, Iowa (1)
			Riceville, Iowa (1)
Defense	Oshkosh, Wisconsin (4)		London, Canada (1) [(b)]
	Jefferson City, Tennessee (1) [(b)]		
	Spartanburg, South Carolina (1) [(b)]		

(a) Two facilities are owned and the other is leased.

(b) These facilities are leased.

(c) One facility is owned and the other is leased.

The Company's manufacturing facilities generally operate five days per week on one or two shifts, except for seasonal shutdowns for one- to three-week periods. The Company believes its manufacturing capacity could be significantly increased with limited capital spending by operating an additional shift at each facility.

The Company also performs contract maintenance services out of multiple warehousing and service facilities owned and/or operated by the U.S. government and third parties, including locations in the U.S., Japan and multiple other countries in Europe and the Middle East.

In addition to sales and service activities at the Company's manufacturing facilities, the Company maintains a network of sales and service centers in the U.S. The Company uses these facilities primarily for sales and service of refuse collection vehicles and concrete mixers. The Access Equipment segment also leases a number of small distribution, engineering, administration or service facilities throughout the world.

ITEM 3. LEGAL PROCEEDINGS

The Company is subject to environmental matters and legal proceedings and claims, including patent, antitrust, product liability, warranty and state dealership regulation compliance proceedings that arise in the ordinary course of business. Although the final results of all such matters and claims cannot be predicted with certainty, the Company believes that the ultimate resolution of all such matters and claims will not have a material effect on the Company's financial condition, results of operations or cash flows.

Personal injury actions and other. At December 31, 2022, the estimated net liabilities for product and general liability claims totaled $41.2 million. Although the final results of all such matters and claims cannot be predicted with certainty, the Company believes that the ultimate resolution of all such matters and claims, after considering the liabilities accrued with respect to all such matters and claims, will not have a material effect on the Company's financial condition, results of operations or cash flows. Actual results could vary, among other things, due to the uncertainties involved in litigation.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following table sets forth certain information as of February 21, 2023 concerning the Company's executive officers. All of the Company's executive officers serve terms of one year and until their successors are elected and qualified.

Name	Age	Title
John C. Pfeifer	57	President and Chief Executive Officer
Ignacio A. Cortina	51	Executive Vice President, Chief Legal Officer and Secretary
Jayanthi Iyengar	61	Executive Vice President and Chief Technology and Strategic Sourcing Officer
James W. Johnson	58	Executive Vice President and President, Vocational Segment
Frank R. Nerenhausen	58	Executive Vice President and President, Access Segment
Michael E. Pack	48	Executive Vice President and Chief Financial Officer
Jason P. Baab	49	Senior Vice President, Corporate Development and Strategy
Timothy S. Bleck	48	Senior Vice President and President, Defense Segment
Bryan K. Brandt	54	Senior Vice President and Chief Marketing Officer
Thomas P. Hawkins	58	Senior Vice President, Government Relations
Anupam Khare	58	Senior Vice President and Chief Information Officer
Emma M. McTague	49	Senior Vice President and Chief Human Resources Officer

John C. Pfeifer. Mr. Pfeifer joined the Company in 2019 as Executive Vice President and Chief Operating Officer. In May 2020, Mr. Pfeifer assumed the position of President and Chief Operating Officer of the Company. He was promoted to his current position of President and Chief Executive Officer on April 2, 2021. Prior to joining the Company, he served as Senior Vice President and President - Mercury Marine, of Brunswick Corporation, a designer, manufacturer and marketer of marine engines and marine parts and accessories, from 2014 to 2019. Prior to that, Mr. Pfeifer served as Vice President and President - Mercury Marine of Brunswick Corporation from 2014 to 2018. Mr. Pfeifer is a director of The Manitowoc Company, Inc.

Ignacio A. Cortina. Mr. Cortina joined the Company in 2006 with the acquisition of JLG. He has held various roles of increasing responsibility, serving as the Company's Vice President and Deputy General Counsel from 2011 to 2015 and Senior Vice President, General Counsel and Secretary from 2015 to 2016. Prior to joining the Company, he spent seven years in private practice in the Washington, D.C. area. He was appointed to Executive Vice President, General Counsel and Secretary in 2016. He was appointed to his current position of Executive Vice President, Chief Legal Officer and Secretary in February 2023.

Jayanthi Iyengar. Ms. Iyengar joined the Company in January 2022 as Executive Vice President and Chief Technology and Strategic Sourcing Officer. Prior to joining the Company, she served as Chief Technology and Quality Officer - CNH Industrial N.V., a designer, manufacturer and marketer of agricultural machinery and construction equipment, from 2019 to January 2022. Prior to that, Ms. Iyengar served as Senior Vice President Chief Innovation & Technology Officer - Xylem Inc., a water technology provider, from 2015 to 2019. Prior to that, Ms. Iyengar served as Vice President, Aerospace Engineering & Technology Officer - Eaton Corporation, a multinational power management company, from 2012 to 2015.

James W. Johnson. Mr. Johnson joined the Company in 2007 as Director of Dealer Development for Pierce. He served as Senior Vice President of Sales and Marketing for Pierce from 2009 to 2010. He served as the Executive Vice President and President, Fire & Emergency Segment from 2010 to 2023. He was appointed to his current position of Executive Vice President and President, Vocational Segment in January 2023.

Frank R. Nerenhausen. Mr. Nerenhausen joined the Company in 1986 and has served in various assignments, including Vice President of Concrete & Refuse Sales & Marketing for McNeilus from 2008 to 2010 and Executive Vice President and President, Commercial Segment from 2010 to 2012. He was appointed to his current position of Executive Vice President and President, Access Segment in 2012.

Michael E. Pack. Mr. Pack joined the Company in 2006 as Senior Director of Financial Analysis and Controls and has served in various assignments in the Commercial, Access Equipment and Fire & Emergency segments, including Vice President Finance - Fire & Emergency from 2012 to 2020. He was appointed to his current position of Executive Vice President and Chief Financial Officer in April 2020.

Jason P. Baab. Mr. Baab joined the Company in 2017 as Vice President of Corporate Development and was appointed to his current position of Senior Vice President, Corporate Development and Strategy in October 2021. Prior to joining the Company, he served as Vice President of Corporate Development for Fortune Brands Home & Security, Inc., a home and security products company, from 2013 to 2016.

Timothy S. Bleck. Mr. Bleck joined the Company in 2006 as Controller of the Commercial segment and served in that role to 2010. He served as Controller for the Defense segment from 2010 to 2015 and as Vice President Finance, Defense segment from 2015 until his appointment to his current position of Senior Vice President and President, Defense Segment in November 2022.

Bryan K. Brandt. Mr. Brandt joined the Company in 2016 as Vice President, Global Branding and Communications. He was appointed to his current position of Senior Vice President and Chief Marketing Officer in September 2018. Prior to joining the Company, he spent more than twenty years with Bemis Company, Inc., a global supplier of flexible packaging, in numerous positions of increasing responsibility, most recently as Vice President of Marketing and Transformation for Bemis North America from 2014 to 2016.

Thomas P. Hawkins. Mr. Hawkins joined the Company in September 2018 as Senior Vice President of Government Relations. Mr. Hawkins has 29 years of government service, most recently as the National Security Advisor with the Office of the Senate Republican Leader from 2007 to 2018.

Anupam Khare. Mr. Khare joined the Company in April 2018 as Senior Vice President and Chief Information Officer. He previously served as the Executive Director - Digital Technology at United Technologies Corporation, a global technology products and services company that serves the building systems and aerospace industries, from 2015 to April 2018. Prior to that, Mr. Khare served in positions of increasing responsibility at Koch Industries, Inc., a manufacturer of a wide variety of products.

Emma M. McTague. Ms. McTague joined the Company in 2015 as Vice President and Chief Human Resources Officer for the Access Equipment segment. She was appointed to her current position of Senior Vice President and Chief Human Resources Officer in February 2021.

PART II

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

Common Stock Repurchases

The following table sets forth information with respect to purchases of Common Stock made by the Company or on the Company's behalf during the fourth quarter of fiscal 2022:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs [(1)]	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs [(1)]
October 1 - October 31	—	$ —	—	11,550,677
November 1 - November 30	—	$ —	—	11,550,677
December 1 - December 31	—	$ —	—	11,550,677
Total	—		—	11,550,677

(1) In May 2019, the Company's Board of Directors approved a Common Stock repurchase authorization for which there was remaining authority to repurchase 4,109,419 shares of Common Stock as of May 3, 2022. On May 3, 2022, the Board of Directors increased the Common Stock repurchase authorization by 7,890,581 shares to 12,000,000 shares as of that date. The Company repurchased 1,508,467 shares of Common Stock under these authorizations during the year ended December 31, 2022 at a cost of $155.0 million. As of December 31, 2022, the Company had remaining authority to repurchase 11,550,677 shares of Common Stock. The Company can use the current authorization at any time as there is no expiration date associated with the authorization. From time to time, the Company may enter into a Rule 10b5-1 trading plan for the purpose of repurchasing shares under this authorization.

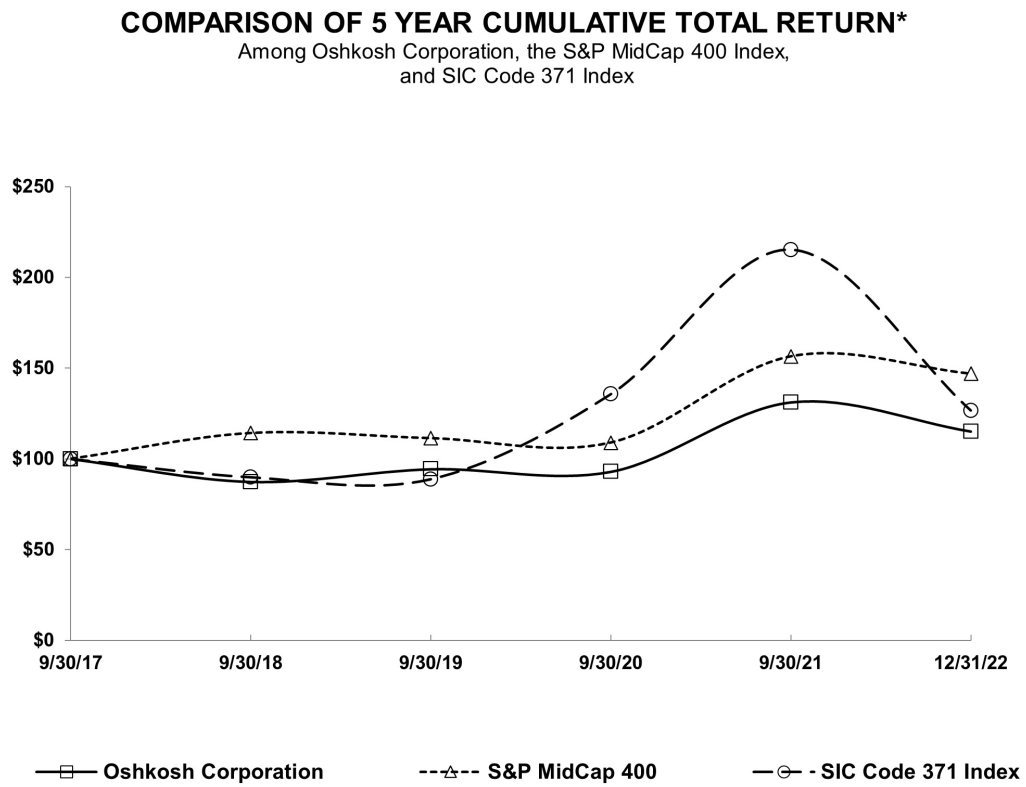
Common Stock Information

The Company's Common Stock is listed on the New York Stock Exchange (NYSE) under the symbol OSK. As of February 14, 2023, there were 2,038 holders of record of the Common Stock.

Item 12 of this Annual Report on Form 10-K contains certain information relating to the Company's equity compensation plans.

The following information in this Item 5 is not deemed to be "soliciting material" or to be "filed" with the SEC or subject to Regulation 14A or 14C under the Securities Exchange Act of 1934 (Exchange Act) or to the liabilities of Section 18 of the Exchange Act, and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act, except to the extent the Company specifically incorporates it by reference into such a filing. The SEC requires the Company to include a line graph presentation comparing cumulative five year Common Stock returns with a broad-based stock index and either a nationally recognized industry index or an index of peer companies selected by the Company. The Company has chosen to use the Standard & Poor's MidCap 400 market index as the broad-based index and the companies currently in the Standard Industry Classification Code 371 Index (motor vehicles and equipment) (the SIC Code 371 Index) as a more specific comparison.

The comparisons assume that $100 was invested on September 30, 2017 in each of: the Company's Common Stock, the Standard & Poor's MidCap 400 market index and the SIC Code 371 Index. The total return assumes reinvestment of dividends and is adjusted for stock splits. The fiscal 2022 return listed in the charts below is based on closing prices per share on December 31, 2022. On that date, the closing price for the Company's Common Stock was $88.19.



* $100 invested on September 30, 2017 in stock or index, including reinvestment of dividends.

	September 30,				December 31,
	2018	2019	2020	2021	2022
Oshkosh Corporation	$ 87.39	$ 94.38	$ 92.94	$ 131.14	$ 115.13
S&P MidCap 400 market index	114.21	111.36	108.96	156.55	146.99
SIC Code 371 Index	89.93	88.87	135.70	215.31	126.73

ITEM 6. RESERVED

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

GENERAL

The Company is an industrial technology company and manufacturer that innovates purpose-built vehicles and equipment for the access, defense, fire & emergency, refuse collection and concrete placement markets. The Company is a leading global designer and manufacturer of aerial work platforms under the "JLG" brand name. The Company is among the worldwide leaders in the design and manufacturing of telehandlers under the "JLG" and "SkyTrak" brand names. Under the "Jerr-Dan" brand name, the Company is a leading domestic designer and manufacturer and marketer of towing and recovery equipment. The Company manufactures defense trucks under the "Oshkosh" brand name and is a leading designer and manufacturer of severe-duty, tactical wheeled vehicles for the U.S. Department of Defense (DoD). The Company also designs and manufactures delivery vehicles for the United States Postal Service (USPS) and airport snow removal vehicles under the "Oshkosh" brand name. Under the "Pierce" and "Maxi-Metal" brand names, the Company is among the leading global designers and manufacturers of fire trucks assembled on both custom and commercial chassis. Under the "Frontline" brand name, the Company is a leading domestic designer, manufacturer and marketer of broadcast and command vehicles. The Company designs and manufactures Aircraft Rescue and Firefighting (ARFF) vehicles under the "Oshkosh" brand name. Under the "McNeilus" brand name, the Company designs and manufactures a wide range of automated, rear, front, side and top loading refuse collection vehicles. Under the "McNeilus," "Oshkosh," and "London" brand names, the Company designs and manufactures rear- and front-discharge concrete mixers. Under the "IMT" brand name, the Company is a leading domestic designer and manufacturer of field service vehicles and truck-mounted cranes.

Major products manufactured and marketed by each of the Company's business segments are as follows:

Access Equipment — aerial work platforms and telehandlers used in a wide variety of construction, industrial, institutional and general maintenance applications to position workers and materials at elevated heights, as well as carriers and wreckers. Access Equipment customers include equipment rental companies, construction contractors, manufacturing companies, home improvement centers and towing companies.

Defense — tactical vehicles, trailers, weapons system integration and parts sold to the U.S. military and to other militaries around the world, delivery vehicles for the USPS, and snow removal vehicles for military and civilian airports.

Fire & Emergency — custom and commercial firefighting vehicles and equipment, ARFF vehicles, simulators, mobile command and control vehicles and other emergency vehicles primarily sold to fire departments, airports and other governmental units, as well as broadcast vehicles sold to broadcasters and TV stations.

Commercial — refuse collection vehicles sold to commercial and municipal waste haulers, concrete mixers sold to ready-mix companies and field service vehicles and truck-mounted cranes sold to mining, construction and other companies.

All estimates referred to in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" refer to the Company's estimates as of February 21, 2023.

BASIS OF PRESENTATION

In October 2021, the Company's changed its fiscal year end from September 30 to December 31. Accordingly, the Company reported a transition quarter that ran from October 1, 2021 through December 31, 2021. Fiscal 2020 and Fiscal 2021 relate to the years ended September 30, 2020 and September 30, 2021, respectively. Fiscal 2022 relates to the year ended December 31, 2022. The Company has presented the unaudited Condensed Consolidated Statements of Income and Condensed Consolidated Statements of Cash Flows for the year ended December 31, 2021 at the end of the "Results of Operations" section below for reference in the comparisons to fiscal 2022. The Company has presented the year ended December 31, 2021 as a comparison to its results for fiscal 2022 as it believes this comparison is more meaningful to a reader's understanding of its fiscal 2022 results of operations than a comparison to fiscal 2021.

Effective October 1, 2022, the Company changed its method of accounting for certain inventory in the United States from the Last-in, First-Out (LIFO) method to the First-In, First-Out (FIFO) method. The FIFO method of accounting for inventory is preferable because it more accurately reflects the current value and physical flow of inventory, it improves comparability with the Company's peers and it harmonizes the accounting method for all of the Company's inventories. The effects of the change in accounting method from LIFO to FIFO have been retrospectively applied to all periods presented in this Annual Report, including Management's Discussion and Analysis. Refer to Note 2 of the consolidated financial statements in Part II Item 8 of this Annual Report on Form 10-K for further information related to the change in accounting method.

OVERVIEW

The Company entered 2021 in the midst of the COVID-19 pandemic, which negatively impacted its sales at the start of 2021, particularly in the Access Equipment segment. Higher COVID-19 infection rates also resulted in production challenges in both the Defense and Fire & Emergency segments in the first quarter of 2021. Toward the end of the first quarter of 2021, positive vaccination progress, and the confidence that brought to the marketplace, caused the U.S. economy to begin to rebound. As a result, the Company experienced a strong return in demand for many of its products. This rapid rebound coincided with significant supply chain and logistics disruptions across the globe, which in turn led to labor inefficiencies within the Company's production facilities and higher freight costs to expedite parts. The rapid increase in business activity also caused the Company to experience significant inflation in materials, freight and labor costs. These global supply chain bottlenecks and inflationary conditions continued throughout fiscal 2022. The Company increased prices multiple times in its non-Defense segments in an effort to offset the higher input costs, but the realization of the price increases was not immediate due to existing backlog at the time the price increases were implemented. The difference in the timing of the realization of our price increases as compared to the impact of cost increases adversely impacted price/cost dynamics of the Company, particularly during the first half of fiscal 2022. Realized price increases largely caught up to cost increases in the back half of fiscal 2022, particularly in the Access Equipment and Commercial segments. The time to achieve price-cost neutrality in the Fire & Emergency segment is longer due to the nature of bonded orders for municipal customers.

The Company grew revenues 4.1% in fiscal 2022 compared to the year ended December 31, 2021, resulting in diluted earnings per share of $2.63. Earnings per share were lower than earnings per share of $6.68 for the year ended December 31, 2021 largely due to manufacturing inefficiencies associated with supply chain disruptions, the absence of a carryback of a U.S. net operating loss to previous tax years, unfavorable cumulative catch-up adjustments in the Defense segment, a loss on the settlement of a frozen pension plan and higher new product development spending.

Fiscal 2022 results included an after-tax charge of $25.7 million for the settlement of a frozen pension plan, a charge of $18.1 million associated with foreign anti-hybrid tax legislation, an after-tax charge $6.4 million for the impairment of intangible assets and an after-tax charge of $4.6 million for the release of cumulative translation adjustment losses. In aggregate, these items accounted for a net $54.8 million, or $0.83 per share, charge in fiscal 2022. Results for the year ended December 31, 2021 included a $75.3 million tax benefit associated with the carryback of a U.S. net operating loss to prior years and an $11.7 million tax benefit associated with the release of a valuation allowance on deferred tax assets in Europe, offset in part by an after-tax charge of $3.9 million associated with restructuring actions in the Access Equipment segment and an after-tax charge of $0.2 million associated with business acquisition costs in the Defense segment. In aggregate, these items accounted for a net $82.9 million, $1.20 per share, benefit for the year ended December 31, 2021.

The Company announced an increase in its quarterly dividend rate of 10.8%, to $0.41 per share, beginning in February 2023. This was the Company's ninth straight year of a double-digit percentage increase to its dividend rate.

Effective January 31, 2023, the Company combined its Fire & Emergency and Commercial segment businesses into a new reporting segment called Vocational as all of the businesses design, develop and manufacture purpose-built vocational vehicles for people in communities around the world who do tough work. By combining these segments, the Company expects to drive enhanced efficiencies across the board, while better leveraging its scale in technology development at an accelerated pace. The Company believes the Vocational segment also serves as a platform for further organic and inorganic growth opportunities in several important end markets. The Company expects that the Vocational segment will initially generate annual revenues of over $2 billion with the opportunity to grow organically at a high single digit compound annual growth rate to nearly $3 billion with 12% plus operating margins over the next few years. The Company has also announced that it has entered into a definitive agreement to sell its rear discharge concrete mixer business, which is expected to occur by the end of the first quarter of fiscal 2023. The Company expects this will enable it to focus on attractive end markets that value technology and innovation that it believes will drive higher margins.

FISCAL 2023 OUTLOOK

The Company estimates consolidated net sales will be in the range of $8.4 billion in fiscal 2023, compared to $8.3 billion in fiscal 2022. The Company expects consolidated operating income will be in the range of $530 million, resulting in diluted earnings per share in the range of $5.50. The fiscal 2023 estimate assumes an average share count of 65.7 million shares. Included in the Company's expectations is the adverse impact of approximately $0.80 per share related to incentive compensation costs returning to typical levels and increased new product development investments of approximately $0.30 per share.

Demand remains strong as indicated by order intake of $3.3 billion in the fourth quarter of fiscal 2022, leading to the Company's record backlog of $14.1 billion on December 31, 2022. The Company's guidance reflects modest supply chain improvements in fiscal 2023, but the Company expects that supply chain impacts will continue to limit the Company's revenues and contribute to production inefficiencies in fiscal 2023.

The Company believes Access segment net sales will be in the range of $4.2 billion in fiscal 2023, a 6% increase compared to fiscal 2022 net sales. The Company's estimates reflect expectations of improved pricing and a modest volume increase. Supply chain dynamics are expected to remain the limiting factor for more significant revenue growth as demand remains very robust. The Company expects operating margin in the Access segment in fiscal 2023 will be in the range of 11%. The Company expects the 310 basis point improvement in operating margin compared to fiscal 2022 will be driven by the full year benefit of improved pricing and improved absorption.

The Company expects Defense segment net sales will be in the range of $2.0 billion in fiscal 2023, approximately $140 million lower than fiscal 2022. The Company expects that revenue will begin to grow in fiscal 2024 as the USPS NGDV production begins to ramp up. The Company expects Defense segment operating margin will be in the range of 4% in fiscal 2023. The Company expects unfavorable product mix and NGDV-related pre-production operating expenses to account for the mid-single digit operating margin. The Company expects margins will improve as new programs ramp up in fiscal 2024.

The Company expects Vocational segment net sales will be in the range of $2.2 billion in fiscal 2023, roughly flat to the fiscal 2022 combined revenue for the Fire & Emergency and Commercial segments. The Company's guidance for the Vocational segment reflects modest volume increases, offset in part by the impact of the planned divestiture of the rear discharge concrete mixer business which is expected to occur during the first quarter of fiscal 2023. Similar to the Access segment, demand remains very strong, but the Company's revenues are expected to be constrained in fiscal 2023 by supply chain dynamics.

The Company expects operating margin in the Vocational segment will be in the range of 7.5%, reflecting the impact of constrained output and manufacturing inefficiencies due to supply chain dynamics and the impact of price-protected orders. Vocational segment operating income margins are expected to grow beyond fiscal 2023 as municipal customer orders in backlog for delivery in fiscal 2024 were booked at significantly higher prices and the Company expects margin benefit over time from the integration of the two segments.

The Company estimates corporate expenses in fiscal 2023 will be approximately $170 million, approximately $29 million higher than fiscal 2022 driven by a return of incentive compensation to typical levels and increased investments in growth initiatives and new product development. The Company estimates the tax rate for fiscal 2023 will be approximately 25%.

The Company expects consolidated net sales in the first quarter of fiscal 2023 to be in the range of $2.1 billion, down approximately $100 million versus the fourth quarter of fiscal 2022. The Company expects the lower revenue to be driven by the timing of deliveries in the Access and Vocational segments as well as lower sales in the Defense segment. The Company expects earnings per share in the first quarter of fiscal 2023 will be in the range of $1.00, reflecting the lower sales, unfavorable order mix in the Defense segment and the return of incentive compensation costs to typical levels. Based on these factors, the Company expects that the first quarter will be the lowest quarter of fiscal 2023 for diluted earnings per share.

RESULTS OF OPERATIONS

CONSOLIDATED RESULTS - YEAR ENDED DECEMBER 31, 2022

The following table presents consolidated results (in millions):

	Year Ended December 31,			
	2022	2021	Change	% Change
Net sales	$ 8,282.0	$ 7,952.5	$ 329.5	4.1 %
Cost of sales	7,227.6	6,734.8	492.8	7.3 %
Gross income	1,054.4	1,217.7	(163.3)	-13.4 %
% of sales	*12.7 %*	*15.3 %*	*-260 bps*	
SG&A expenses	662.8	672.0	(9.2)	-1.4 %
Amortization	11.6	11.1	0.5	4.5 %
Impairment charge	7.7	—	7.7	100.0 %
Operating income	372.3	534.6	(162.3)	-30.4 %
% of sales	*4.5 %*	*6.7 %*	*-220 bps*	

The following table presents net sales by geographic region based on product shipment destination (in millions):

	Year Ended December 31,			
	2022	2021	Change	% Change
North America	$ 7,468.2	$ 7,019.9	$ 448.3	6.4 %
Europe, Africa and Middle East	455.2	460.9	(5.7)	-1.2 %
Rest of the world	358.6	471.7	(113.1)	-24.0 %
	$ 8,282.0	$ 7,952.5	$ 329.5	4.1 %

Fiscal 2022 Compared to Year Ended December 31, 2021 (unaudited)

Consolidated net sales increased as a result of improved pricing ($467 million), offset in part by the unfavorable impact of foreign currency exchange rates ($57 million), lower consolidated volume ($52 million) and unfavorable cumulative catch-up adjustments on contracts in the Defense segment ($27 million).

The decrease in consolidated gross margin was due to higher material & logistics costs (580 basis points) and higher manufacturing costs (130 basis points) largely as a result of supply chain disruptions, offset in part by improved pricing (430 basis points).

The decrease in consolidated selling, general and administrative expenses was generally a result of lower incentive compensation costs ($46 million), offset in part by higher salaries ($11 million), higher reserves for credit losses ($10 million), higher software costs ($9 million) and increased travel ($5 million).

The decrease in consolidated operating income was primarily due to unfavorable material & logistics costs ($482 million), manufacturing inefficiencies ($119 million) associated with supply chain disruptions, unfavorable cumulative catch-up adjustments on contracts in the Defense segment ($42 million), higher engineering and new product development spending ($32 million) and higher operating expenses ($28 million), offset in part by improved pricing ($467 million) and lower incentive compensation costs ($58 million).

The following table presents consolidated non-operating changes (in millions):

	Year Ended December 31,		
	2022	2021	Change
Interest expense, net of interest income	$ (43.9)	$ (45.2)	$ 1.3
Miscellaneous income (expense)	(52.8)	(6.2)	(46.6)
Provision for income taxes	97.5	23.7	73.8
Effective tax rate	35.4 %	4.9 %	
Gains (losses) of unconsolidated affiliates	$ (4.2)	$ 1.5	$ (5.7)

Fiscal 2022 Compared to Year Ended December 31, 2021 (unaudited)

Other miscellaneous income (expense) primarily related to gains and losses on investments, net foreign currency transaction gains and losses, and non-service costs of the Company's pension plans. Fiscal 2022 results included a charge of $33.6 million for the settlement of a frozen pension plan. Foreign currency transactions resulted in losses of $6.9 million in fiscal 2022 and gains of $4.9 million for the year ended December 31, 2021. Results included an unrealized loss on an investment of $10.3 million in fiscal 2022 and $10.8 million for the year ended December 31, 2021.

Income tax expense in fiscal 2022 included a charge of $31.3 million as the Company revised its interpretation of certain foreign anti-hybrid tax legislation based upon comments from the corresponding taxing authorities. Results for the year ended December 31, 2021 included discrete tax benefits of $91.3 million, primarily related to the carryback of the net operating loss to previous tax years with higher federal statutory tax rates ($75.3 million) and the reversal of a tax valuation allowance recorded against certain foreign net deferred tax assets in Europe ($11.7 million). See Note 6 of the Notes to Consolidated Financial Statements for a reconciliation of the effective tax rate compared to the U.S. statutory tax rate.

Gains and losses of unconsolidated affiliates primarily represented changes in the Company's equity method investments.

SEGMENT RESULTS

Access Equipment

The following table presents the Access Equipment segment results (in millions):

	Year Ended December 31,			
	2022	2021	Change	% Change
Net sales	$ 3,972.1	$ 3,341.9	$ 630.2	18.9 %
Cost of sales	3,432.2	2,828.4	603.8	21.3 %
Gross income	539.9	513.5	26.4	5.1 %
% of sales	*13.6 %*	*15.4 %*	*-180 bps*	
SG&A expenses	226.3	221.9	4.4	2.0 %
Amortization	0.4	0.4	—	0.0 %
Operating income	313.2	291.2	22.0	7.6 %
% of sales	*7.9 %*	*8.7 %*	*-80 bps*	

Fiscal 2022 Compared to Year Ended December 31, 2021 (unaudited)

Access Equipment segment net sales increased as a result of higher pricing ($348 million) in response to higher input costs and increased volume ($337 million). Access Equipment sales for fiscal 2022 were unfavorably impacted by $53 million from changes in foreign currency exchange rates.

The decrease in Access Equipment segment gross margin was due to higher material & logistics costs (900 basis points), offset in part by improved pricing (650 basis points) and lower product liability costs (40 basis points).

The increase in Access Equipment segment operating income was primarily due to improved pricing ($348 million), the impact of higher gross margin associated with higher sales volume ($84 million) and lower incentive compensation costs ($27 million), offset in part by higher material & logistics costs ($372 million) and higher manufacturing costs ($63 million).

Defense

The following table presents the Defense segment results (in millions):

	Year Ended December 31,			
	2022	2021	Change	% Change
Net sales	$ 2,141.3	$ 2,506.8	$ (365.5)	-14.6 %
Cost of sales	1,951.5	2,208.1	(256.6)	-11.6 %
Gross income	189.8	298.7	(108.9)	-36.5 %
% of sales	*8.9 %*	*11.9 %*	*-300 bps*	
SG&A expenses	131.9	129.3	2.6	2.0 %
Amortization	6.1	5.9	0.2	3.4 %
Impairment charge	5.6	—	5.6	100.0 %
Operating income	46.2	163.5	(117.3)	-71.7 %
% of sales	*2.2 %*	*6.5 %*	*-430 bps*	

Fiscal 2022 Compared to Year Ended December 31, 2021 (unaudited)

Defense segment net sales decreased as U.S. Government funding for the Company's tactical wheeled vehicle programs has decreased in recent years.

The decrease in gross margin in the Defense segment was due to unfavorable cumulative catch-up adjustments on contracts (180 basis points) and unfavorable product mix (120 basis points).

The decrease in operating income in the Defense segment was primarily a result of the impact of lower gross margin associated with lower sales volume ($54 million), unfavorable cumulative catch-up adjustments on contracts ($42 million) and unfavorable product mix ($26 million), offset in part by lower warranty costs ($14 million). Changes in estimates on contracts accounted for under the cost-to-cost method resulted in cumulative catch-up adjustments on contract margins that decreased Defense segment operating income by $44.9 million in fiscal 2022 primarily as a result of higher material and logistics costs. Changes in estimates on contracts accounted for under the cost-to-cost method decreased Defense segment operating income by $3.3 million in the year ended December 31, 2021.

Fire & Emergency

The following table presents the Fire & Emergency segment results (in millions):

	Year Ended December 31,			
	2022	2021	Change	% Change
Net sales	$ 1,111.6	$ 1,171.3	$ (59.7)	-5.1 %
Cost of sales	929.8	920.6	9.2	1.0 %
Gross income	181.8	250.7	(68.9)	-27.5 %
% of sales	*16.4 %*	*21.4 %*	*-500 bps*	
SG&A expenses	85.3	90.4	(5.1)	-5.6 %
Amortization	1.6	1.3	0.3	23.1 %
Operating income	94.9	159.0	(64.1)	-40.3 %
% of sales	*8.5 %*	*13.6 %*	*-510 bps*	

Fiscal 2022 Compared to Year Ended December 31, 2021 (unaudited)

Fire & Emergency segment net sales decreased due to lower ARFF vehicle volume ($53 million) and lower fire truck volume ($41 million) as a result of supply chain disruptions, offset in part by improved pricing ($32 million).

The decrease in gross margin in the Fire & Emergency segment was primarily attributable to higher material & logistics costs (320 basis points), manufacturing inefficiencies (270 basis points) largely associated with parts shortages and labor availability and adverse product mix (100 basis points), offset in part by improved pricing (210 basis points).

The decrease in operating income in the Fire & Emergency segment was largely a result of higher material & logistics costs ($36 million), higher manufacturing inefficiencies ($29 million), the impact of lower gross margin associated with lower sales volume ($25 million) and adverse product mix ($11 million), offset in part by improved pricing ($32 million) and lower incentive compensation costs ($6 million).

Commercial

The following table presents the Commercial segment results (in millions):

	Year Ended December 31,			
	2022	2021	Change	% Change
Net sales	$ 1,064.1	$ 952.5	$ 111.6	11.7 %
Cost of sales	912.4	796.2	116.2	14.6 %
Gross income	151.7	156.3	(4.6)	-2.9 %
% of sales	*14.3 %*	*16.4 %*	*-210 bps*	
SG&A expenses	86.6	82.4	4.2	5.1 %
Amortization	3.5	3.5	—	0.0 %
Impairment charge	2.1	—	2.1	100.0 %
Operating income	59.5	70.4	(10.9)	-15.5 %
% of sales	*5.6 %*	*7.4 %*	*-180 bps*	

Fiscal 2022 Compared to Year Ended December 31, 2021 (unaudited)

Commercial segment net sales increased as a result of higher pricing ($87 million) in response to higher input costs and favorable product mix primarily due to a greater percentage of sales that included a third-party chassis ($37 million).

The decrease in gross margin in the Commercial segment was primarily attributable to unfavorable material & logistics costs (680 basis points) and higher manufacturing costs (150 basis points), offset in part by improved pricing (600 basis points).

The decrease in operating income in the Commercial segment was primarily due to higher material & logistics costs ($72 million), higher manufacturing costs ($24 million), higher engineering and new product development spending ($10 million) and higher warranty costs ($4 million), offset in part by improved pricing ($87 million) and favorable product mix ($14 million).

Corporate and Intersegment eliminations

The following table presents the corporate costs and intersegment eliminations (in millions):

	Year Ended December 31,			
	2022	2021	Change	% Change
Net sales	$ (7.1)	$ (20.0)	$ 12.9	64.5 %
Cost of sales	1.7	(18.5)	20.2	109.2 %
Gross income	(8.8)	(1.5)	(7.3)	-486.7 %
Operating expenses	132.7	148.0	(15.3)	10.3 %
Operating income	(141.5)	(149.5)	8.0	5.4 %

Fiscal 2022 Compared to Year Ended December 31, 2021 (unaudited)

Corporate operating expenses decreased as a result of lower incentive compensation costs ($16 million), offset in part by higher engineering and new product development spending ($7 million).

THREE MONTHS ENDED DECEMBER 31, 2021 COMPARED WITH THE THREE MONTHS ENDED DECEMBER 31, 2020

The comparison of the results for the three months ended December 31, 2021 with the results for the three months ended December 31, 2020 can be found in the "Management's Discussion and Analysis" section in the Company's Transition Report on Form 10-Q for the transition period from October 1, 2021 to December 31, 2021.

FISCAL 2021 COMPARED WITH FISCAL 2020

The comparison of the fiscal 2021 results with the fiscal 2020 results can be found in the "Management's Discussion and Analysis" section in the Company's fiscal 2021 Annual Report on Form 10-K.

PRO-FORMA FINANCIAL STATEMENTS

The Condensed Consolidated Statement of Income for fiscal 2022 is presented below for reference in comparison to the year ended December 31, 2021 (in millions):

	Year Ended December 31, 2022	Year Ended December 31, 2021 (unaudited)
Net sales	$ 8,282.0	$ 7,952.5
Cost of sales	7,227.6	6,734.8
Gross income	1,054.4	1,217.7
Operating expenses:		
Selling, general and administrative	662.8	672.0
Amortization of purchased intangibles	11.6	11.1
Intangible asset impairment charge	7.7	—
Total operating expenses	682.1	683.1
Operating income	372.3	534.6
Other income (expense):		
Interest expense	(53.4)	(48.7)
Interest income	9.5	3.6
Miscellaneous, net	(52.8)	(6.2)
Income before income taxes and earnings (losses) of unconsolidated affiliates	275.6	483.3
Provision for income taxes	97.5	23.7
Income before earnings (losses) of unconsolidated affiliates	178.1	459.6
Equity in earnings (losses) of unconsolidated affiliates	(4.2)	1.5
Net income	$ 173.9	$ 461.1
Earnings per share:		
Basic	$ 2.65	$ 6.76
Diluted	2.63	6.68
Basic weighted-average shares outstanding	65,699,693	68,258,241
Dilutive equity-based compensation awards	435,125	730,661
Diluted weighted-average shares outstanding	66,134,818	68,988,902

The Condensed Consolidated Statement of Cash Flows for fiscal 2022 is presented below for reference in comparison to the year ended December 31, 2021 (in millions):

	Year Ended December 31,	
	2022	2021 (unaudited)
Operating activities:		
Net income	$ 173.9	$ 461.1
Depreciation and amortization	107.6	104.4
Intangible asset impairment charge	7.7	—
Stock-based incentive compensation	28.6	24.8
Deferred income taxes	(53.5)	(80.6)
Gain on sale of assets	(3.8)	(11.9)
Unrealized loss on investments	12.6	6.2
Foreign currency transaction (gains) losses	6.9	(4.5)
Other non-cash adjustments	4.3	—
Changes in operating assets and liabilities	317.0	190.9
Net cash provided by operating activities	601.3	690.4
Investing activities:		
Additions to property, plant and equipment	(269.5)	(122.2)
Additions to equipment held for rental	(10.2)	(12.3)
Acquisition of business, net of cash acquired	(19.5)	(110.6)
Proceeds from sale of equipment held for rental	13.0	28.5
Acquisition of equity securities	(17.4)	(41.8)
Other investing activities	3.2	7.4
Net cash used in investing activities	(300.4)	(251.0)
Financing activities:		
Proceeds from debt	10.4	—
Repayments of debt	(225.0)	—
Repurchases of Common Stock	(155.0)	(257.8)
Dividends paid	(97.3)	(92.8)
Proceeds from exercise of stock options	3.1	40.9
Other financing activities	(21.2)	(24.7)
Net cash used in financing activities	(485.0)	(334.4)
Effect of exchange rate changes on cash and cash equivalents	(5.7)	(7.9)
Increase (decrease) in cash and cash equivalents	(189.8)	97.1
Cash and cash equivalents at beginning of period	995.7	898.6
Cash and cash equivalents at end of period	$ 805.9	$ 995.7

LIQUIDITY AND CAPITAL RESOURCES

The Company generates significant capital resources from operating activities, which is the expected primary source of funding for the Company. The Company expects cash flow from operations of approximately $650 million in fiscal 2023. In addition to cash generated from operations, the Company had other sources of liquidity available at December 31, 2022, including $805.9 million of cash and cash equivalents and $1.08 billion of unused available capacity under the Revolving Credit Facility (as defined in "Liquidity"). Borrowings under the Revolving Credit Facility could, as discussed below, be limited by a financial covenant contained in the Credit Agreement (as defined in "Liquidity"). The Company was in compliance and expects to remain in compliance with the financial covenant contained in the Credit Agreement.

The Company continues to actively monitor its liquidity position and working capital needs and prioritizes capital expenditures related to capacity and strategic investments. The Company remains in a stable overall capital resources and liquidity position that the Company believes is adequate to meet its projected needs. Other uses of cash include the repayment of debt and the repurchase of the Company's Common Stock. In fiscal 2022, the Company used available cash to repay $225.0 million of debt and repurchase $155.0 million of its Common Stock.

Financial Condition at December 31, 2022

The Company's capitalization was as follows (in millions):

	December 31, 2022	December 31, 2021	September 30, 2021
Cash and cash equivalents	$ 805.9	$ 995.7	$ 1,375.8
Total debt	604.7	819.0	818.8
Total shareholders' equity	3,185.7	3,204.3	3,357.7
Total capitalization (debt plus equity)	3,790.4	4,023.3	4,176.5
Debt to total capitalization	16.0 %	20.4 %	19.6 %

The Company's ratio of debt to total capitalization of 16.0% at December 31, 2022 remained within its targeted range. Debt to total capitalization decreased in fiscal 2022 due to the repayment of remaining amounts due under the Company's term loan during the year. The Company's goal is to maintain an investment-grade credit rating. The rating agencies periodically update the Company's credit ratings as events or changes in economic conditions occur. At December 31, 2022, the long-term credit ratings assigned to the Company's senior debt securities by the credit rating agencies engaged by the Company were as follows:

Rating Agency	Rating
Fitch Ratings	BBB
Moody's Investor Services, Inc.	Baa3
Standards & Poor's	BBB

Consolidated days sales outstanding (defined as "Trade Receivables" at quarter end divided by "Net Sales" for the most recent quarter multiplied by 90 days) was 45 days at December 31, 2022, down slightly from 46 days at December 31, 2021. Days sales outstanding for segments other than the Defense segment was 49 days at December 31, 2022, down from 53 days at December 31, 2021 on quicker cash collections at the Access Equipment segment. Consolidated inventory turns (defined as "Cost of Sales" on an annualized basis, divided by the average "Inventory" at the past five quarter end periods) decreased from 4.3 times at December 31, 2021 to 4.1 times at December 31, 2022 primarily as a result of higher inventory levels in the Defense segment. Consolidated days payables outstanding (defined as "Accounts Payable" at quarter end divided by material costs of sales for the most recent quarter multiplied by 90 days) was 66 days, up from 55 days at December 31, 2021 due to the timing of payments near year end and significant non-inventory payables related to construction projects.

Operating Cash Flows

Operating activities provided $601.3 million of cash in fiscal 2022 compared to $690.4 million during the year ended December 31, 2021. The decrease in cash provided by operating activities in fiscal 2022 compared to the year ended December 31, 2021 was due to the lower net income generated during the year, a significant increase in inventory due to global supply chain challenges that have delayed the Company's ability to complete units and lower incentive compensation accruals, offset in part by higher customer advances in the Fire & Emergency and Defense segments.

Investing Cash Flows

Investing activities used cash of $300.4 million in fiscal 2022 compared to $251.0 million during the year ended December 31, 2021. Additions to property, plant and equipment of $269.5 million in fiscal 2022 increased $147.3 million from the year ended December 31, 2021 driven by capital spending to set up the NGDV manufacturing plant in Spartanburg, SC. The Company anticipates that it will spend $350 million on capital expenditures in fiscal 2023 as the Company completes the NGDV facility in South Carolina and invests in manufacturing capacity in the Access and Vocational segments. During the first quarter of fiscal 2023, the Company utilized approximately $200 million of cash to fund the acquisition of Hinowa S.p.A., an Italian manufacturer of compact crawler booms and other tracked equipment.

Financing Cash Flows

Financing activities used cash of $485.0 million in fiscal 2022 compared to $334.4 million during the year ended December 31, 2021. The increase in cash utilized for financing activities was due to the repayment of the Company's $225 million term loan, offset in part by a decrease in Common Stock repurchases under authorizations approved by the Company's Board of Directors. In fiscal 2022, the Company repurchased 1,508,467 shares of its Common Stock at an aggregate cost of $155.0 million. During the year ended December 31, 2021, the Company repurchased 2,290,765 shares of its Common Stock at an aggregate cost of $257.8 million. The Company's Board of Directors increased the Company's repurchase authorization to 12 million shares on May 3, 2022. As of December 31, 2022, the Company had approximately 11.6 million shares of Common Stock remaining under its repurchase authorization.

Liquidity

Senior Credit Agreement

On March 23, 2022, the Company entered into a Third Amended and Restated Credit Agreement (the "Credit Agreement"). The Credit Agreement provides for an unsecured revolving credit facility (the "Revolving Credit Facility") that matures in March 2027 with an initial maximum aggregate amount of availability of $1.1 billion.

Under the Credit Agreement, the Company is obligated to pay (i) an unused commitment fee ranging from 0.080% to 0.225% per annum of the average daily unused portion of the aggregate revolving credit commitments under the Credit Agreement and (ii) a fee ranging from 0.4375% to 1.500% per annum of the maximum amount available to be drawn for each letter of credit issued and outstanding under the Credit Agreement.

Covenant Compliance

The Credit Agreement contains various restrictions and covenants, including a requirement that the Company maintain a leverage ratio at certain levels, subject to certain exceptions, restrictions on the ability of the Company and certain of its subsidiaries to consolidate or merge, create liens, incur additional subsidiary indebtedness and consummate acquisitions and a restriction on the disposition of all or substantially all of the assets of the Company and its subsidiaries taken as a whole. The Company was in compliance with the financial covenant contained in the Credit Agreement as of December 31, 2022 and expects to be able to meet the financial covenant contained in the Credit Agreement over the next twelve months.

Senior Notes

In May 2018, the Company issued $300.0 million of 4.600% unsecured senior notes due May 15, 2028 (the "2028 Senior Notes"). In February 2020, the Company issued $300.0 million of 3.100% unsecured senior notes due March 1, 2030 (the "2030 Senior Notes"). The 2028 Senior Notes and the 2030 Senior Notes were issued pursuant to an indenture (the "Indenture") between the Company and a trustee. The Indenture contains customary affirmative and negative covenants. The Company has the option to redeem the 2028 Senior Notes and 2030 Senior Notes at any time for a premium.

Refer to Note 15 of the Notes to Consolidated Financial Statements for additional information regarding the Company's debt as of December 31, 2022.

Contractual Obligations

The total amount of gross unrecognized tax benefits, including interest, for uncertain tax positions was $103.8 million as of December 31, 2022. Payment of these obligations would result from settlements with tax authorities. Due to the difficulty in determining the timing of the settlement, these obligations are not included in the summary of the Company's fixed contractual obligations. See Note 6 of the Notes to Consolidated Financial Statements for additional information regarding the Company's unrecognized tax benefits as of December 31, 2022. Following is a summary of the Company's contractual obligations and payments due by period following December 31, 2022 (in millions):

	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Long-term debt (including interest)[(1)]	$ 740.7	$ 23.1	$ 46.2	$ 46.2	$ 625.2
Lease obligations	286.4	63.8	75.0	48.5	99.1
Purchase obligations[(2)]	2,406.0	2,252.6	152.9	0.4	0.1
Other long-term liabilities[(3)]	441.3	44.3	68.8	46.4	281.8
	$ 3,874.4	$ 2,383.8	$ 342.9	$ 141.5	$ 1,006.2

(1) Interest was calculated based upon the interest rate in effect on December 31, 2022.

(2) The amounts for purchase obligations included above represent all obligations to purchase goods or services under agreements that are enforceable and legally binding and that specify all significant terms.

(3) Represents other long-term liabilities on the Company's Consolidated Balance Sheet, including the current portion of these liabilities. The projected timing of cash flows associated with these obligations is based on management's estimates, which are based largely on historical experience. This amount also includes all liabilities under the Company's pension and other postretirement benefit plans. See Note 5 of the Notes to Consolidated Financial Statements for information regarding these liabilities and the plan assets available to satisfy them.

CRITICAL ACCOUNTING POLICIES

The Company's significant accounting policies are described in Note 2 of the Notes to Consolidated Financial Statements. The Company considers the following policy to be the most critical in understanding the judgments that are involved in the preparation of the Company's consolidated financial statements and the uncertainties that could impact the Company's financial condition, results of operations and cash flows.

Revenue Recognition. The Company recognizes revenue in accordance with Accounting Standards Codification 606, *Revenue from Contracts with Customers*. Accordingly, revenue is recognized when control of the goods or services promised under a contract is transferred to the customer either at a point in time (e.g., upon delivery) or over time (e.g., as the Company performs under the contract) in an amount that reflects the consideration to which the Company expects to be entitled in exchange for the goods or services. The Company accounts for a contract when it has approval and commitment from both parties, the rights and payment terms of the parties are identified, the contract has commercial substance and collectability of consideration is probable. If collectability is not probable, the sale is deferred until collection becomes probable or payment is received. In fiscal 2022, approximately 30% of the Company's revenues were recognized under the percentage-of-completion accounting method.

Contracts are reviewed to determine whether there is one or multiple performance obligations. A performance obligation is a promise to transfer a distinct good or service to a customer and represents the unit of accounting for revenue recognition. For contracts with multiple performance obligations, the expected consideration (e.g., the transaction price) is allocated to each performance obligation identified in the contract based on the relative standalone selling price of each performance obligation, which is determinable based on observable standalone selling prices or is estimated using an expected cost plus a margin approach. Revenue is then recognized for the transaction price allocated to the performance obligation when control of the promised goods or services underlying the performance obligation is transferred. When the amount of consideration allocated to a performance obligation through this process differs from the invoiced amount, it results in a contract asset or liability. The identification of performance obligations within a contract requires significant judgment.

The following is a description of the primary activities from which the Company generates revenue.

Access Equipment, Fire & Emergency and Commercial segments revenue

The Company derives revenue in the Access Equipment, Fire & Emergency and Commercial segments (non-defense segments) through the sale of machinery, vehicles and related aftermarket parts and services. Customers include distributors and end-users. Contracts with customers generally exist upon the approval of a quote and/or purchase order by the Company and customer. Each contract is also assessed at inception to determine whether it is necessary to combine the contract with other contracts.

The Company's non-defense segments offer various customer incentives within contracts, such as sales and marketing rebates, volume discounts and interest subsidies, some of which are variable and therefore must be estimated by the Company. Transaction prices may also be impacted by rights of return, primarily within the aftermarket parts business, which requires the Company to record a liability and asset representing its rights and obligations in the event a return occurs. The estimated return liability is based on historical experience rates.

Revenue for performance obligations consisting of machinery, vehicles and aftermarket parts (together, "product") is recognized when the customer obtains control of the product, which typically occurs at a point in time, based on the shipping terms within the contract. In the Commercial segment, concrete mixer and refuse collection products are sold on both Company owned chassis and customer owned chassis. When performing work on a customer owned chassis, revenue is recognized over time based on the cost-to-cost method, as the Company is enhancing a customer owned asset.

All non-defense segments offer aftermarket services related to their respective products such as repair, refurbishment and maintenance (together, "services"). The Company generally recognizes revenue on service performance obligations over time using the method that results in the most faithful depiction of transfer of control to the customer. Non-defense segments also offer extended warranty coverage as an option on most products. The Company considers extended warranties to be service-type warranties and therefore a performance obligation. Service-type warranties differ from the Company's standard, or assurance-type warranties, as they are generally separately priced and negotiated as part of the contract and/or provide additional coverage beyond what the customer or customer group that purchases the product would receive under the Company's standard assurance-type warranty. The Company has concluded that its extended warranties are stand-ready obligations to perform and therefore recognizes revenue ratably over the coverage period.

Defense segment revenue

The majority of the Company's Defense segment net sales are derived through long-term contracts with the U.S. government to design, develop, manufacture or modify defense and other specialty vehicles. These contracts, which also include those under the U.S. Government-sponsored Foreign Military Sales (FMS) program, accounted for approximately 95% of Defense segment revenue in fiscal 2022. Contracts with Defense segment customers are generally fixed-price or cost-reimbursement type contracts. Under fixed-price contracts, the price paid to the Company is generally not adjusted to reflect the Company's actual costs except for costs incurred as a result of contract modifications. Certain fixed-price contracts include an incentive component under which the price paid to the Company is subject to adjustment based on the actual costs incurred. Under cost-reimbursement contracts, the price paid to the Company is determined based on the allowable costs incurred to perform plus a fee. The fee component of cost-reimbursement contracts can be fixed based on negotiations at contract inception or can vary based on performance against target costs established at the time of contract inception. The Company also designs, develops, manufactures or modifies defense products for international customers through Direct Commercial Sale contracts. The Defense segment supports its products through the sale of aftermarket parts and services. Aftermarket contracts can range from long-term supply agreements to ad hoc purchase orders for replacement parts.

The Company evaluates the promised goods and services within Defense segment contracts at inception to identify performance obligations. The goods and services in Defense segment contracts are typically not distinct from one another as they are generally customized and have complex inter-relationships and the Company is responsible for overall management of the contract. As a result, Defense segment contracts are typically accounted for as a single performance obligation. The Defense segment provides standard warranties for its products for periods that typically range from one to two years. These assurance-type warranties typically cannot be purchased separately and do not meet the criteria to be considered a performance obligation.

The Company determines the transaction price for each contract at inception based on the consideration that it expects to receive for the goods and services promised under the contract. This determination is made based on the Company's current rights, excluding the impact of any subsequent contract modifications (including unexercised options) until they become legally enforceable. Contract modifications frequently occur within the Defense segment. The Company evaluates each modification to identify changes that impact the price or scope of its contracts, which are then assessed to determine if the modification should be accounted for as an adjustment to an existing contract or as a separate contract. Contract modifications within the Defense segment are generally accounted for as a cumulative catch-up adjustment to existing contracts as they are not distinct from the goods and services within the existing contract.

For Defense segment contracts that include a variable component of the sale price, the Company estimates variable consideration. Variable consideration is included within the contract's transaction price to the extent it is probable that a significant reversal of revenue will not occur. The Company evaluates its estimates of variable consideration on an ongoing basis and any adjustments are accounted for as changes in estimates in the period identified. Common forms of variable consideration within Defense segment contracts include cost reimbursement contracts that contain incentives, customer reimbursement rights and regulatory or customer negotiated penalties tied to contract performance.

The Company recognizes revenue on Defense segment contracts as performance obligations are satisfied and control of the underlying goods and services is transferred to the customer. In making this evaluation, the Defense segment considers contract terms, payment terms and whether there is an alternative future use for the good or service. Through this process the Company has concluded that substantially all of the Defense segment's performance obligations, including a majority of performance obligations for aftermarket goods and services, transfer control to the customer over time. For U.S. government and FMS program contracts, this determination is supported by the inclusion of clauses within contracts that allow the customer to terminate a contract at its convenience. When the clause is present, the Company is entitled to compensation for the work performed through the date of notification at a price that reflects actual costs plus a reasonable margin in exchange for transferring its work in process to the customer. For contracts that do not contain termination for convenience provisions, the Company is generally able to support the over time transfer of control determination as a result of the customized nature of its goods and services, which create assets without an alternative use and contractual rights.

When transfer of control is not determined to be continuous over the term of the contract, the Company initially defers contract costs that relate to the contract or anticipated contract, as they generate or enhance assets that will be utilized to satisfy performance obligations in the future and are expected to be recovered. Deferred contract costs are subsequently amortized on a systematic basis consistent with the pattern of transfer of the goods and services to which they relate. Unlike the JLTV and FMTV A2 contracts, for which the Company has concluded control of the performance obligations transfers continuously over the contract terms, the Company has concluded that control of the performance obligation for the USPS contract transfers during the production phase of the contract. As a result, the Company has recognized $387.4 million of deferred contract costs related to the USPS contract at December 31, 2022 consisting of engineering costs, setup costs and tooling costs. The Company anticipates the production phase of the contract will begin in 2024. The USPS contract contains milestone billings provisions, under which the Company received $342 million of advance payments from the customer as of December 31, 2022.

CRITICAL ACCOUNTING ESTIMATES

"Management's Discussion and Analysis of Financial Condition and Results of Operations" is based on the Company's Consolidated Financial Statements, which have been prepared in accordance with generally accepted accounting principles in the United States of America (U.S. GAAP). The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and judgments that affect reported amounts and related disclosures. On an ongoing basis, management evaluates and updates its estimates. Management employs judgment in making its estimates but they are based on historical experience and currently available information and various other assumptions that the Company believes to be reasonable under the circumstances. The results of these estimates form the basis for making judgments about the carrying values of assets and liabilities that are not readily available from other sources. Actual results could differ from those estimates.

Management believes that its judgment is applied consistently and produces financial information that fairly depicts the results of operations for all periods presented.

Estimate-at-Completion (EAC). The Company has concluded that control of substantially all of the Defense segment's performance obligations transfers to the customer continuously and therefore revenue is recognized over time. The Defense segment recognizes revenue on its performance obligations that are satisfied over time by measuring progress using the cost-to-cost method of percentage-of-completion because it best depicts the transfer of control to the customer. Under the cost-to-cost method of percentage-of-completion, the Defense segment measures progress based on the ratio of costs incurred to date to total estimated costs for the performance obligations. Due to the size and nature of these contracts, the estimation of total revenues and costs is highly complicated and judgmental. The Company must make assumptions regarding expected increases in wages and employee benefits, productivity and availability of labor, material costs and allocated fixed costs. Each contract is evaluated at contract inception to identify risks and estimate revenue and costs. In performing this evaluation, the Defense segment considers risks of contract performance such as technical requirements, schedule, duration and key contract dependencies. These considerations are then factored into the Company's estimated revenue and costs. If a loss is expected on a performance obligation, the complete estimated loss is recorded in the period in which the loss is identified. Preliminary contract estimates are subject to change throughout the duration of the contract as additional information becomes available that impacts risks and estimated revenue and costs. Changes to production costs, overhead rates, learning curve and/or supplier performance can also impact these estimates. These estimates are highly judgmental, particularly the non-production costs on the JLTV and FMTV A2 contracts. The Company recognizes changes in estimated sales or costs and the resulting profit or loss on a cumulative basis. In addition, as contract modifications (e.g., new orders) are received, they are evaluated to determine if they represent a separate contract or the impact on the existing contract. As of December 31, 2022, the estimated remaining costs on the JLTV and FMTV A2 contracts represent the majority of the total estimated costs to complete in the Defense segment. Changes in estimates on contracts accounted for under the cost-to-cost method decreased Defense segment operating income by $44.9 million in fiscal 2022.

NEW ACCOUNTING STANDARDS

See Note 2 of the Notes to Consolidated Financial Statements regarding the impact or potential impact of recent accounting pronouncements on the Company's consolidated financial statements.

CUSTOMERS AND BACKLOG

Sales to the U.S. government comprised approximately 25% of the Company's net sales in fiscal 2022. No other single customer accounted for more than 10% of the Company's net sales for this period. A substantial majority of the Company's net sales are derived from the fulfillment of customer orders that are received prior to commencing production.

The Company's backlog as of December 31, 2022 increased 52.3% to $14.1 billion compared to $9.3 billion at December 31, 2021. Access Equipment segment backlog increased 22.1% to $4.4 billion at December 31, 2022 compared to $3.6 billion at December 31, 2021 as the re-opening of economies coming out of the pandemic and elevated customer fleet ages drove higher demand. Defense segment backlog increased 78.1% to $6.3 billion at December 31, 2022 compared to $3.5 billion at December 31, 2021 primarily due to the initial order from the USPS for the NGDV program. Fire & Emergency segment backlog increased 85.4% to $2.9 billion at December 31, 2022 compared to $1.5 billion at December 31, 2021 due to strong demand for fire trucks coming out of the COVID-19 pandemic. Commercial segment backlog decreased 4.3% to $581.2 million at December 31, 2022 compared to $607.0 million at December 31, 2021 due to management of the order book for mixers to finalize orders closer to the delivery date, offset in part by improved market demand for refuse collection vehicles as demand rebounded following the re-opening of economies. Global supply chain challenges and the associated delays in production are also contributing to higher backlogs in all segments.

Backlog represents the dollar amount of revenues that the Company anticipates from customer contracts that have been awarded and/or are in progress. Reported backlog includes the original contract amount and any contract modifications that have been agreed upon. Reported backlog excludes purchase options, announced orders for which definitive contracts have not been executed and any potential future contract modifications. Backlog is comprised of fixed and variable priced contracts that may be canceled, modified or otherwise changed in the future. As a result, backlog may not be indicative of future operating results. Backlog information and comparisons thereof as of different dates may not be accurate indicators of future sales or the ratio of the Company's future sales to the DoD versus its sales to other customers. Approximately 49% of the Company's December 31, 2022 backlog is not expected to be filled in fiscal 2023.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The Company is exposed to market risk from changes in interest rates, certain commodity prices and foreign currency exchange rates. To reduce the risk from changes in foreign currency exchange and interest rates, the Company selectively uses financial instruments. All hedging transactions are authorized and executed pursuant to clearly defined policies and procedures, which strictly prohibit the use of financial instruments for speculative purposes.

Interest Rate Risk. The Company's earnings exposure related to adverse movements in interest rates is primarily derived from outstanding floating rate debt instruments that are indexed to short-term market interest rates. In this regard, changes in U.S. and off-shore interest rates affect interest payable on the Company's borrowings under its Credit Agreement. The Company had no variable rate-based debt outstanding at December 31, 2022.

Commodity Price Risk. The Company is a purchaser of certain commodities, including steel, aluminum and composites. In addition, the Company is a purchaser of components and parts containing various commodities, including steel, aluminum, rubber and others which are integrated into the Company's end products. The Company generally buys these commodities and components based upon market prices that are established with the vendor as part of the purchase process. The Company does not use commodity financial instruments to hedge commodity prices.

The Company generally obtains firm quotations from its significant components' suppliers for its orders under firm, fixed-price contracts in its Defense segment when possible. In the Company's Access Equipment, Fire & Emergency and Commercial segments, the Company generally attempts to obtain firm pricing from most of its suppliers, consistent with backlog requirements and/or forecasted annual sales. To the extent that commodity prices increase and the Company does not have firm pricing from its suppliers, or its suppliers are not able to honor such prices, then the Company may experience margin declines to the extent it is not able to increase selling prices of its products.

Foreign Currency Risk. The Company's operations consist of manufacturing in the U.S., Mexico, Canada, France, Australia, the United Kingdom and China and sales and limited vehicle body mounting activities on five continents. International sales comprised approximately 12% of overall net sales in fiscal 2022, of which approximately 49% involved exports from the U.S. The majority of export sales in fiscal 2022 were denominated in U.S. dollars. As a result of the manufacture and sale of the Company's products in foreign markets, the Company's earnings are affected by fluctuations in the value of foreign currencies in which certain of the Company's transactions are denominated as compared to the value of the U.S. dollar. The Company's operating results are principally exposed to changes in exchange rates between the U.S. dollar and the European currencies, primarily the Euro and the U.K. pound sterling, changes between the U.S. dollar and the Australian dollar, changes between the U.S. dollar and the Brazilian real, changes between the U.S. dollar and the Mexican peso, changes between the U.S. dollar and the Chinese renminbi and changes between the U.S. dollar and the Canadian dollar.

ITEM 8. FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Oshkosh Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Oshkosh Corporation and subsidiaries (the "Company") as of December 31, 2022, December 31, 2021, and September 30, 2021, the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows, for the year ended December 31, 2022, the three months ended December 31, 2021, and fiscal years ended September 30, 2021 and 2020, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022, December 31, 2021, and September 30, 2021, and the results of its operations and its cash flows for the year ended December 31, 2022, the three months ended December 31, 2021, and the fiscal years ended September 30, 2021, and 2020, in conformity with accounting principles generally accepted in the United States of America.

We have also 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 (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 21, 2023 expressed an unqualified opinion on the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Notes 2 and 24 to the consolidated financial statements, the Company elected to change its method of accounting for certain inventories from the last-in, first-out ("LIFO") cost method to the first-in, first-out ("FIFO") cost method which has been retrospectively applied to the consolidated financial statements as of December 31, 2022, December 31, 2021, and September 30, 2021.

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 critical audit matters does not alter in any way our opinion on the 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 accounts or disclosures to which it relates.

Defense Segment Revenue – Refer to Note 3 to the financial statements

Critical Audit Matter Description

The Company's Defense segment recognized revenue on long-term contracts primarily with the U.S. Government for the production of goods, the provision of services, or a combination of both totaling $2,128.3 million for the year ended December 31, 2022. The Company's firm-fixed long-term contracts are typically accounted for as a single performance obligation because the goods and services are generally customized and have complex inter-relationships and the Company is responsible for overall management of the contract. The Company recognizes revenue on Defense segment contracts as performance obligations are satisfied and control of the underlying goods and services is transferred to the customer. The Company measures progress based on the ratio of costs incurred to date to total estimated costs for the performance obligation under the cost-to-cost method of percentage-of-completion.

The estimated costs to complete for the Joint Light Tactical Vehicles (JLTV) contract represents the majority of the total estimated costs to complete in the Defense segment as of December 31, 2022. Given the complexity of this contract and the length of the contract term, together with the significant judgments necessary to estimate costs used to measure progress on this contract, auditing the estimates of costs for this contract required extensive audit effort and a high degree of auditor judgment, especially given the risks of contract performance, such as labor and material costs, schedule, and duration.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the estimated costs for the JLTV truck contract included the following, among others:

- We tested the effectiveness of controls over revenue recognized over time, including management's controls over estimated costs.
- We evaluated the appropriateness and consistency of the methods and assumptions used by management to develop the estimates of costs to completion.
- We tested the mathematical accuracy of management's estimates of costs to completion.
- We evaluated the estimates of costs to completion by performing the following:
  - Observed completed vehicles on a sample basis to evaluate the progress to completion.
  - Compared costs incurred to date to the costs management estimated to be incurred to date.
  - Evaluated management's ability to achieve the estimates of costs to completion by performing corroborating inquiries with the Company's project managers and engineers, and comparing the estimates to management's work plans, engineering specifications, and supplier contracts.
- We evaluated management's ability to accurately estimate costs to completion by comparing actual results to management's historical estimates and actual results on similar completed contracts.

/s/ Deloitte & Touche LLP

Milwaukee, Wisconsin
February 21, 2023

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

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Oshkosh Corporation

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Oshkosh Corporation and subsidiaries (the “Company”) as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 21, 2023, expressed an unqualified opinion on those financial statements.

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. 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/ Deloitte & Touche LLP

Milwaukee, Wisconsin
February 21, 2023

OSHKOSH CORPORATION
CONSOLIDATED STATEMENTS OF INCOME
(Dollars in millions, except per share amounts)

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Net sales	$ 8,282.0	$ 1,791.7	$ 7,737.3	$ 6,856.8
Cost of sales	7,227.6	1,596.4	6,469.1	5,740.4
Gross income	1,054.4	195.3	1,268.2	1,116.4
Operating expenses:				
Selling, general and administrative	662.8	150.9	666.5	620.6
Amortization of purchased intangibles	11.6	2.8	9.6	11.0
Intangible asset impairment	7.7	—	—	—
Total operating expenses	682.1	153.7	676.1	631.6
Operating income	372.3	41.6	592.1	484.8
Other income (expense):				
Interest expense	(53.4)	(12.5)	(48.2)	(59.3)
Interest income	9.5	0.7	3.5	7.5
Miscellaneous, net	(52.8)	(5.6)	(2.1)	2.2
Income before income taxes and earnings (losses) of unconsolidated affiliates	275.6	24.2	545.3	435.2
Provision for income taxes	97.5	1.2	36.4	111.9
Income before earnings (losses) of unconsolidated affiliates	178.1	23.0	508.9	323.3
Equity in earnings (losses) of unconsolidated affiliates	(4.2)	1.2	—	(1.8)
Net income	$ 173.9	$ 24.2	$ 508.9	$ 321.5
Earnings per share:				
Basic	$ 2.65	$ 0.36	$ 7.43	$ 4.72
Diluted	2.63	0.36	7.35	4.67

The accompanying notes are an integral part of these financial statements

OSHKOSH CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Dollars in millions)

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Net income	$ 173.9	$ 24.2	$ 508.9	$ 321.5
Other comprehensive income (loss), net of tax:				
Employee pension and postretirement benefits	56.7	8.6	61.7	(26.5)
Currency translation adjustments	(26.4)	(6.9)	3.8	30.4
Change in fair value of derivative instruments	6.0	0.7	1.9	(0.7)
Total other comprehensive income (loss), net of tax	36.3	2.4	67.4	3.2
Comprehensive income	$ 210.2	$ 26.6	$ 576.3	$ 324.7

The accompanying notes are an integral part of these financial statements

OSHKOSH CORPORATION
CONSOLIDATED BALANCE SHEETS
(Dollars in millions, except share and per share amounts)

	December 31, 2022	December 31, 2021	September 30, 2021
Assets			
Current assets:			
Cash and cash equivalents	$ 805.9	$ 995.7	$ 1,375.8
Receivables, net	1,162.0	973.4	1,017.3
Unbilled receivables, net	586.3	440.8	421.1
Inventories, net	1,865.6	1,550.4	1,411.5
Income taxes receivable	21.6	250.3	278.1
Other current assets	90.7	71.7	58.2
Total current assets	4,532.1	4,282.3	4,562.0
Property, plant and equipment, net	826.2	593.2	595.9
Goodwill	1,042.0	1,049.0	1,052.0
Purchased intangible assets, net	457.0	464.0	466.8
Deferred income taxes	134.8	71.7	8.3
Other long-term assets	736.9	389.5	350.7
Total assets	$ 7,729.0	$ 6,849.7	$ 7,035.7
Liabilities and Shareholders' Equity			
Current liabilities:			
Revolving credit facilities	$ 9.7	$ —	$ —
Accounts payable	1,129.0	747.4	860.4
Customer advances	696.7	690.9	654.3
Payroll-related obligations	119.5	118.4	215.1
Income taxes payable	100.3	222.1	64.9
Other current liabilities	373.4	364.2	357.0
Total current liabilities	2,428.6	2,143.0	2,151.7
Long-term debt, less current maturities	595.0	819.0	818.8
Long-term customer advances	1,020.5	207.0	118.7
Other long-term liabilities	499.2	476.4	588.8
Commitments and contingencies			
Shareholders' equity:			
Preferred Stock ($0.01 par value; 2,000,000 shares authorized; none issued and outstanding)	—	—	—
Common Stock ($0.01 par value; 300,000,000 shares authorized; 75,101,465 shares issued)	0.7	0.7	0.7
Additional paid-in capital	806.0	792.4	804.6
Retained earnings	3,315.0	3,238.5	3,239.2
Accumulated other comprehensive loss	(92.3)	(128.6)	(131.0)
Common Stock in treasury, at cost (9,629,317 and 8,289,347 and 7,089,782 shares, respectively)	(843.7)	(698.7)	(555.8)
Total shareholders' equity	3,185.7	3,204.3	3,357.7
Total liabilities and shareholders' equity	$ 7,729.0	$ 6,849.7	$ 7,035.7

The accompanying notes are an integral part of these financial statements

OSHKOSH CORPORATION
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(Dollars in millions, except per share amounts)

	Common Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Common Stock in Treasury at Cost	Total
Balance at September 30, 2019	$ 0.7	$ 808.5	$ 2,505.0	$ (201.6)	$ (512.8)	$ 2,599.8
Effect of change in inventory accounting method	—	—	76.7	—	—	76.7
Balance at October 1, 2019	0.7	808.5	2,581.7	(201.6)	(512.8)	2,676.5
Net income	—	—	321.5	—	—	321.5
Employee pension and postretirement benefits, net of tax of $8.6	—	—	—	(26.5)	—	(26.5)
Currency translation adjustments	—	—	—	30.4	—	30.4
Loss on derivative instruments, net of tax	—	—	—	(0.7)	—	(0.7)
Cash dividends ($1.20 per share)	—	—	(81.8)	—	—	(81.8)
Repurchases of Common Stock	—	—	—	—	(40.8)	(40.8)
Exercise of stock options	—	(11.6)	—	—	37.7	26.1
Stock-based compensation expense	—	29.3	—	—	—	29.3
Payment of stock-based restricted and performance shares	—	(23.0)	—	—	23.0	—
Shares tendered for taxes on stock-based compensation	—	—	—	—	(10.7)	(10.7)
Other	—	(2.3)	—	—	3.4	1.1
Balance at September 30, 2020	0.7	800.9	2,821.4	(198.4)	(500.2)	2,924.4
Net income	—	—	508.9	—	—	508.9
Employee pension and postretirement benefits, net of tax of $19.4	—	—	—	61.7	—	61.7
Currency translation adjustments	—	—	—	3.8	—	3.8
Gain on derivative instruments, net of tax	—	—	—	1.9	—	1.9
Cash dividends ($1.32 per share)	—	—	(90.4)	—	—	(90.4)
Repurchases of Common Stock	—	—	—	—	(107.8)	(107.8)
Exercise of stock options	—	0.2	—	—	42.6	42.8
Stock-based compensation expense	—	27.2	—	—	—	27.2
Payment of stock-based restricted and performance shares	—	(23.3)	—	—	23.3	—
Shares tendered for taxes on stock-based compensation	—	—	—	—	(14.3)	(14.3)
Other	—	(0.4)	(0.7)	—	0.6	(0.5)
Balance at September 30, 2021	0.7	804.6	3,239.2	(131.0)	(555.8)	3,357.7
Net income	—	—	24.2	—	—	24.2
Employee pension and postretirement benefits, net of tax of $2.6	—	—	—	8.6	—	8.6
Currency translation adjustments	—	—	—	(6.9)	—	(6.9)
Gain on derivative instruments, net of tax	—	—	—	0.7	—	0.7
Cash dividends ($0.37 per share)	—	—	(24.9)	—	—	(24.9)
Repurchases of Common Stock	—	—	—	—	(150.0)	(150.0)
Exercise of stock options	—	0.1	—	—	2.6	2.7
Stock-based compensation expense	—	4.2	—	—	—	4.2
Payment of stock-based restricted and performance shares	—	(16.5)	—	—	16.5	—
Shares tendered for taxes on stock-based compensation	—	—	—	—	(12.0)	(12.0)
Balance at December 31, 2021	0.7	792.4	3,238.5	(128.6)	(698.7)	3,204.3
Net income	—	—	173.9	—	—	173.9
Employee pension and postretirement benefits, net of tax of $17.3	—	—	—	56.7	—	56.7
Currency translation adjustments	—	—	—	(26.4)	—	(26.4)
Gain on derivative instruments, net of tax	—	—	—	6.0	—	6.0
Cash dividends ($1.48 per share)	—	—	(97.3)	—	—	(97.3)
Repurchases of Common Stock	—	—	—	—	(155.0)	(155.0)
Exercise of stock options	—	(0.3)	—	—	3.4	3.1
Stock-based compensation expense	—	28.6	—	—	—	28.6
Payment of stock-based restricted and performance shares	—	(14.0)	—	—	14.0	—
Shares tendered for taxes on stock-based compensation	—	—	—	—	(8.3)	(8.3)
Other	—	(0.7)	(0.1)	—	0.9	0.1
Balance at December 31, 2022	$ 0.7	$ 806.0	$ 3,315.0	$ (92.3)	$ (843.7)	$ 3,185.7

The accompanying notes are an integral part of these financial statements

OSHKOSH CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Dollars in millions)

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Operating activities:				
Net income	$ 173.9	$ 24.2	$ 508.9	$ 321.5
Depreciation and amortization	107.6	27.0	104.0	104.2
Intangible asset impairment charge	7.7	—	—	—
Stock-based incentive compensation	28.6	4.2	27.2	29.3
Deferred income taxes	(53.5)	(179.5)	99.8	21.5
Gain on sale of assets	(3.8)	(5.6)	(3.6)	(11.8)
Unrealized loss on investments	12.6	5.5	0.7	—
Foreign currency transaction (gains) losses	6.9	(0.9)	(3.1)	(0.6)
Other non-cash adjustments	4.3	0.3	2.3	7.9
Changes in operating assets and liabilities:				
Receivables, net	(200.4)	45.5	(128.3)	266.7
Unbilled receivables, net	(146.3)	(19.7)	62.8	65.8
Inventories, net	(330.8)	(139.0)	199.3	(242.8)
Other current assets	(11.5)	(13.5)	8.1	(17.4)
Accounts payable	331.7	(105.6)	252.1	(222.5)
Customer advances	819.3	124.9	281.3	112.3
Payroll-related obligations	1.5	(96.7)	61.2	(32.3)
Income taxes payable	71.8	190.6	(156.7)	(52.1)
Other current liabilities	7.5	3.4	6.4	(37.1)
Other long-term assets and liabilities	(225.8)	(28.2)	(100.8)	14.7
Total changes in operating assets and liabilities	317.0	(38.3)	485.4	(144.7)
Net cash provided (used) by operating activities	601.3	(163.1)	1,221.6	327.3
Investing activities:				
Additions to property, plant and equipment	(269.5)	(39.4)	(104.4)	(112.3)
Additions to equipment held for rental	(10.2)	(3.8)	(10.4)	(17.9)
Acquisition of business, net of cash acquired	(19.7)	—	(110.6)	—
Proceeds from sale of equipment held for rental	13.0	14.9	16.3	38.8
Acquisition of equity securities	(17.4)	(1.2)	(41.0)	(2.9)
Other investing activities	3.4	0.8	4.5	16.7
Net cash used in investing activities	(300.4)	(28.7)	(245.6)	(77.6)
Financing activities:				
Proceeds from debt (original maturities greater than three months)	10.4	—	—	303.9
Repayments of debt (original maturities greater than three months)	(225.0)	—	(5.2)	(300.0)
Debt issuance costs	(2.5)	—	—	(9.6)
Repurchases of Common Stock	(155.0)	(150.0)	(107.8)	(40.8)
Dividends paid	(97.3)	(24.9)	(90.4)	(81.8)
Proceeds from exercise of stock options	3.1	2.7	42.8	26.1
Acquisition of Common Stock for taxes on stock-based compensation	(8.3)	(12.0)	(14.3)	(10.7)
Other financing activities	(10.4)	(2.1)	(5.5)	(2.6)
Net cash used in financing activities	(485.0)	(186.3)	(180.4)	(115.5)
Effect of exchange rate changes on cash and cash equivalents	(5.7)	(2.0)	(2.7)	0.3
Increase (decrease) in cash and cash equivalents	(189.8)	(380.1)	792.9	134.5
Cash and cash equivalents at beginning of period	995.7	1,375.8	582.9	448.4
Cash and cash equivalents at end of period	$ 805.9	$ 995.7	$ 1,375.8	$ 582.9
Supplemental disclosures:				
Cash paid for interest	$ 49.6	$ 12.2	$ 45.2	$ 55.9
Cash paid for income taxes	257.3	2.7	153.9	157.2
Cash received from income tax refunds	250.8	7.5	26.6	—
Cash paid for operating lease liabilities	49.8	12.2	51.4	55.8
Operating right-of-use assets obtained	56.0	20.6	92.5	23.3

The accompanying notes are an integral part of these financial statements

1. Nature of Operations

Oshkosh Corporation and its subsidiaries (the "Company") is an industrial technology company and manufacturer that innovates purpose-built vehicles and equipment for the access, defense, fire & emergency, refuse collection and concrete placement markets. "Oshkosh" refers to Oshkosh Corporation, not including its subsidiaries. The Company is organized into four operating segments — Access Equipment, Defense, Fire & Emergency and Commercial. The Company's Access Equipment segment is conducted through its wholly-owned subsidiary, JLG Industries, Inc. and its wholly-owned subsidiaries (JLG) and JerrDan Corporation (JerrDan). The Company's Defense segment is conducted through its wholly-owned subsidiary, Oshkosh Defense, LLC (Oshkosh Defense) and its wholly-owned subsidiary, Pratt & Miller Engineering & Fabrication, LLC (Pratt Miller). The Company's Fire & Emergency segment is principally conducted through its wholly-owned subsidiaries Pierce Manufacturing Inc. (Pierce), Oshkosh Airport Products, LLC (Airport Products), Kewaunee Fabrications, LLC (Kewaunee) and Maxi-Metal Inc. (Maxi-Metal). The Company's Commercial segment is principally conducted through its wholly-owned subsidiaries, McNeilus Companies, Inc. (McNeilus), London Machinery Inc. and its wholly-owned subsidiary (London), Iowa Mold Tooling Co., Inc. (IMT) and Oshkosh Commercial Products, LLC (Oshkosh Commercial).

In October 2021, the Company changed its fiscal year from a year beginning on October 1 and ending on September 30 to a year beginning on January 1 and ending on December 31. The Company's current fiscal year runs from January 1, 2022 through December 31, 2022 (fiscal 2022).

On June 13, 2022, the Company acquired all of the outstanding shares of Maxi-Metal, which specializes in the design and manufacture of fire apparatus and utility vehicles for the Canadian market, for 25.3 million Canadian dollars ($19.7 million U.S. dollars).

The operating results of Maxi-Metal have been included in the Company's Consolidated Statements of Income from the date of acquisition. Maxi-Metal had sales of $12.3 million from the acquisition date to December 31, 2022. Pro-forma results of operations have not been presented as the effect of the acquisition is not material to any periods presented.

The following table summarizes the fair values of the assets acquired and liabilities assumed as of the date of acquisition (in millions):

Assets Acquired:		
Current assets, excluding cash of $1.7	$	7.5
Property, plant and equipment		1.6
Goodwill		7.4
Purchased intangible assets		7.2
Total assets		23.7
Liabilities Assumed:		
Current liabilities		2.0
Long-term liabilities		2.0
Total liabilities		4.0
Net assets acquired	$	19.7

Intangible assets associated with the purchase consisted of $4.3 million of assets subject to amortization with an estimated eight-year average life and $2.9 million of assets with an indefinite life. The purchase price, net of cash acquired, was allocated based on the estimated fair value of the assets acquired and liabilities assumed at the date of acquisition with the excess purchase price of $7.4 million recorded as goodwill, representing expected synergies of the combined entity, all of which was allocated to the Fire & Emergency segment. None of the goodwill is deductible for income tax purposes. The Company expensed $0.4 million of transaction costs related to the acquisition during fiscal 2022.

2. Summary of Significant Accounting Policies

Principles of Consolidation and Presentation — The consolidated financial statements include the accounts of Oshkosh and all of its majority-owned or controlled subsidiaries and are prepared in conformity with generally accepted accounting principles in the United States of America (U.S. GAAP). All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates — The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Revenue Recognition — The Company recognizes revenue in accordance with Accounting Standards Codification (ASC) Topic 606, *Revenue from Contracts with Customers* (ASC 606). Accordingly, revenue is recognized when control of the goods or services promised under a contract are transferred to the customer in an amount that reflects the consideration to which the Company expects to be entitled to in exchange for the goods or services.

The Company has elected to apply the following practical expedients and accounting policy elections when determining revenue from contracts with customers and capitalization of related costs:

- Shipping and handling costs incurred after control of the related product has transferred to the customer are considered costs to fulfill the related promise and are included in “Cost of sales” in the Consolidated Statements of Income when incurred or when the related product revenue is recognized, whichever is earlier.
- Except for the Fire & Emergency segment, the Company has elected to not adjust revenue for the effects of a significant finance component when the timing difference between receipt of payment and recognition of revenue is less than one year.
- Sales and similar taxes that are collected from customers are excluded from the transaction price.
- The Company has elected to expense incremental costs to obtain a contract when the amortization period of the related asset is expected to be less than one year.
- The Company has elected to not disclose unsatisfied performance obligations with an original contract duration of one year or less.

See Note 3 of the Notes to Consolidated Financial Statements for information regarding the Company’s revenue recognition practices.

Assurance Warranty — Provisions for estimated assurance warranties are recorded in cost of sales at the time of sale and are periodically adjusted to reflect actual experience. The amount of warranty liability accrued reflects management’s best estimate of the expected future cost of honoring Company obligations under the warranty plans. Historically, the cost of fulfilling the Company’s warranty obligations has principally involved replacement parts, labor and sometimes travel for any field retrofit campaigns. The Company’s estimates are based on historical experience, the extent of pre-production testing, the number of units involved and the extent of features/components included in product models. Also, each quarter, the Company reviews actual warranty claims experience to determine if there are systemic defects that would require a field campaign.

Research and Development and Similar Costs — Except for customer sponsored research and development costs incurred pursuant to contracts (generally with the U.S. Department of Defense (DoD)), research and development costs are expensed as incurred and included in cost of sales. Research and development costs charged to expense totaled $113.4 million in fiscal 2022, $25.6 million for the three months ended December 31, 2021, $103.1 million for the year ended September 30, 2021 and $103.9 million for the year ended September 30, 2020. Customer sponsored research and development costs incurred pursuant to contracts are accounted for as contract costs.

Advertising — Advertising costs are included in selling, general and administrative expense and are expensed as incurred. These expenses totaled $14.2 million in fiscal 2022, $3.5 million for the three months ended December 31, 2021, $17.7 million for the year ended September 30, 2021 and $16.0 million for the year ended September 30, 2020.

Stock-Based Compensation — The Company recognizes stock-based compensation using the fair value provisions prescribed by ASC Topic 718, *Compensation — Stock Compensation*. Accordingly, compensation costs for awards of stock-based compensation settled in shares are determined based on the fair value of the share-based instrument at the time of grant and are recognized as expense over the vesting period of the share-based instrument, net of estimated forfeitures. See Note 4 of the Notes to Consolidated Financial Statements for information regarding the Company's stock-based incentive plans.

Debt Financing Costs — Debt issuance costs on term debt are amortized using the interest method over the term of the debt. Deferred financing costs on lines of credit are amortized on a straight-line basis over the term of the related lines of credit. Amortization expense was $1.6 million (including $0.1 million amortization related to early debt retirement) in fiscal 2022, $0.4 million for the three months ended December 31, 2021, $1.6 million for the year ended September 30, 2021 and $3.6 million (including $1.8 million of amortization related to early debt retirement) for the year ended September 30, 2020.

Income Taxes — Deferred income taxes are provided to recognize temporary differences between the financial reporting basis and the income tax basis of the Company's assets and liabilities using currently enacted tax rates and laws. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment.

The Company evaluates uncertain income tax positions in a two-step process. The first step is recognition, where the Company evaluates whether an individual tax position has a likelihood of greater than 50% of being sustained upon examination based on the technical merits of the position, including resolution of any related appeals or litigation processes. For tax positions that are currently estimated to have a less than 50% likelihood of being sustained, zero tax benefit is recorded. For tax positions that have met the recognition threshold, the Company performs the second step of measuring the benefit to be recorded. The actual benefits ultimately realized may differ from the Company's estimates. In future periods, changes in facts and circumstances and new information may require the Company to change the recognition and measurement estimates with regard to individual tax positions. Changes in recognition and measurement estimates are recorded in results of operations and financial position in the period in which such changes occur.

Fair Value of Financial Instruments — Based on Company estimates, the carrying amounts of cash equivalents, receivables, unbilled receivables, accounts payable and accrued liabilities approximated fair value as of December 31, 2022, December 31, 2021 and September 30, 2021. See Notes 5, 13, 15, 21 and 22 of the Notes to Consolidated Financial Statements for additional fair value information.

Cash and Cash Equivalents — The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents. Cash equivalents at December 31, 2022 consisted principally of bank deposits and money market instruments.

Receivables — Receivables consist of amounts billed and currently due from customers. The Company extends credit to customers in the normal course of business and maintains an allowance for estimated losses resulting from the inability or unwillingness of customers to make required payments. The accrual for expected losses is based on an estimate of the losses inherent in amounts billed, pools of receivables with similar risk characteristics, existing and future economic conditions, reasonable and supportable forecast that affects the collectability of the related receivable and any specific customer collection issues the Company has identified. Account balances are charged against the allowance when the Company determines it is probable the receivable will not be recovered.

Finance Receivables — Finance receivables represent sales-type leases resulting from the sale of the Company's products and the purchase of finance receivables from lenders pursuant to customer defaults under program agreements with finance companies. Finance receivables originated by the Company generally include a residual value component. Residual values are determined based on the expectation that the underlying equipment will have a minimum fair market value at the end of the lease term. This residual value accrues to the Company at the end of the lease. The Company uses its experience and knowledge as an original equipment manufacturer and participant in end markets for the related products along with third-party studies to estimate residual values. The Company monitors these values for impairment on a continuous basis and reflects any resulting reductions in value in current earnings.

Delinquency is the primary indicator of credit quality of finance receivables. The Company maintains a general allowance for finance receivables considered doubtful of future collection based upon individual, and pools of receivables with similar risk characteristics, estimates of inherent losses. Additional allowances are established based upon the Company's evaluation of the quality of the finance receivables, including the length of time the receivables are past due, past experience of collectability and underlying current and future economic conditions. In circumstances where the Company believes collectability is no longer reasonably assured, a specific allowance is recorded to reduce the net recognized receivable to the amount reasonably expected to be collected. The terms of the finance agreements generally give the Company the ability to take possession of the underlying collateral. The Company may incur losses in excess of recorded allowances if the financial condition of its customers were to deteriorate or the full amount of any anticipated proceeds from the sale of the collateral supporting its customers' financial obligations is not realized.

The Company does not accrue interest income on finance receivables in circumstances where the Company believes collectability is no longer reasonably assured. Any cash payments received on nonaccrual finance receivables are applied first to the principal balances. The Company does not resume accrual of interest income until the customer has shown that it is capable of meeting its financial obligations by making timely payments over a sustained period of time. The Company determines past due or delinquency status based upon the due date of the receivable.

Unbilled Receivables — Unbilled receivables consist of unbilled costs and accrued profits related to revenues on contracts with customers that have been recognized for accounting purposes but not yet billed to customers. In the Company's Defense segment, amounts are billed as work progresses in accordance with agreed-upon contractual terms, either upon achievement of contractual milestones (e.g. acceptance of the vehicle) or at periodic intervals (e.g., biweekly or monthly). Generally, billing occurs subsequent to revenue recognition, resulting in unbilled receivables.

Concentration of Credit Risk — Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash equivalents, trade accounts receivable, unbilled receivables and guarantees of certain customers' obligations under deferred payment contracts and lease purchase agreements.

The Company maintains cash and cash equivalents, and other financial instruments, with various major financial institutions. The Company performs periodic evaluations of the relative credit standing of these financial institutions and limits the amount of credit exposure with any institution.

Concentration of credit risk with respect to trade accounts and lease receivables is limited due to the large number of customers and their dispersion across many geographic areas. However, a significant amount of trade accounts receivable are with the U.S. government, with rental companies globally, with companies in the ready-mix concrete industry, with municipalities and with several large waste haulers in the United States. The Company continues to monitor credit risk associated with its trade receivables.

Inventories — Historically, more than 80% of the Company's inventories were accounted for under the last-in, first-out (LIFO) method of accounting. Effective October 1, 2022, the Company elected to adopt the first-in, first-out (FIFO) inventory valuation method for all inventories. FIFO was deemed a preferable method as it better aligns with the accounting practices of peers, it more accurately reflects the current value and physical flow of inventory and it harmonizes the accounting method for inventories across the Company. The change in accounting has been retrospectively applied to the consolidated financial statements. As of October 1, 2019, the change in inventory method increased inventory and retained earnings (net of tax) by $100.6 million and $76.6 million, respectively.

Financial statements for the three months ended December 31, 2021, for the years ended September 30, 2021 and 2020 and at December 31, 2021 and September 30, 2021 have been recast. The impacts on the Company's previously issued Consolidated Financial Statements are presented in the following tables (in millions):

	Three Months Ended December 31, 2021		
Consolidated Statement of Income	**As Previously Reported**	**Adjustments**	**As Revised**
Cost of sales	$ 1,620.0	$ (23.6)	$ 1,596.4
Gross income	$ 171.7	$ 23.6	$ 195.3
Operating income	$ 18.0	$ 23.6	$ 41.6
Income before income taxes and earnings (losses) of unconsolidated affiliates	$ 0.6	$ 23.6	$ 24.2
Provision for income taxes	$ (4.4)	$ 5.6	$ 1.2
Income before earnings (losses) of unconsolidated affiliates	$ 5.0	$ 18.0	$ 23.0
Net income	$ 6.2	$ 18.0	$ 24.2
Basic Earnings per share	$ 0.09	$ 0.27	$ 0.36
Diluted Earnings per share	$ 0.09	$ 0.27	$ 0.36

	Year Ended September 30, 2021		
Consolidated Statement of Income	**As Previously Reported**	**Adjustments**	**As Revised**
Cost of sales	$ 6,516.5	$ (47.4)	$ 6,469.1
Gross income	$ 1,220.8	$ 47.4	$ 1,268.2
Operating income	$ 544.7	$ 47.4	$ 592.1
Income before income taxes and earnings (losses) of unconsolidated affiliates	$ 497.9	$ 47.4	$ 545.3
Provision for income taxes	$ 25.2	$ 11.2	$ 36.4
Income before earnings (losses) of unconsolidated affiliates	$ 472.7	$ 36.2	$ 508.9
Net income	$ 472.7	$ 36.2	$ 508.9
Basic Earnings per share	$ 6.90	$ 0.53	$ 7.43
Diluted Earnings per share	$ 6.83	$ 0.52	$ 7.35

	Year Ended September 30, 2020		
Consolidated Statement of Income	**As Previously Reported**	**Adjustments**	**As Revised**
Cost of sales	$ 5,736.5	$ 3.9	$ 5,740.4
Gross income	$ 1,120.3	$ (3.9)	$ 1,116.4
Operating income	$ 488.7	$ (3.9)	$ 484.8
Income before income taxes and earnings (losses) of unconsolidated affiliates	$ 439.1	$ (3.9)	$ 435.2
Provision for income taxes	$ 112.8	$ (0.9)	$ 111.9
Income before earnings (losses) of unconsolidated affiliates	$ 326.3	$ (3.0)	$ 323.3
Net income	$ 324.5	$ (3.0)	$ 321.5
Basic	$ 4.76	$ (0.04)	$ 4.72
Diluted	$ 4.72	$ (0.05)	$ 4.67

	December 31, 2021		
Consolidated Balance Sheet	**As Previously Reported**	**Adjustments**	**As Revised**
Inventories, net	$ 1,382.7	$ 167.7	$ 1,550.4
Total current assets	$ 4,114.6	$ 167.7	$ 4,282.3
Long-term net deferred tax asset	$ 111.5	$ (39.8)	$ 71.7
Total assets	$ 6,721.8	$ 127.9	$ 6,849.7
Retained earnings	$ 3,110.6	$ 127.9	$ 3,238.5
Total shareholders' equity	$ 3,076.4	$ 127.9	$ 3,204.3
Total liabilities and shareholders' equity	$ 6,721.8	$ 127.9	$ 6,849.7

	September 30, 2021		
Consolidated Balance Sheet	**As Previously Reported**	**Adjustments**	**As Revised**
Inventories, net	$ 1,267.4	$ 144.1	$ 1,411.5
Total current assets	$ 4,417.9	$ 144.1	$ 4,562.0
Total assets	$ 6,891.6	$ 144.1	$ 7,035.7
Long-term net deferred tax liability	$ 73.9	$ 34.2	$ 108.1
Retained earnings	$ 3,129.3	$ 109.9	$ 3,239.2
Total shareholders' equity	$ 3,247.8	$ 109.9	$ 3,357.7
Total liabilities and shareholders' equity	$ 6,891.6	$ 144.1	$ 7,035.7

	Three Months Ended December 31, 2021		
Consolidated Statement of Cash Flows	**As Previously Reported**	**Adjustments**	**As Revised**
Net income	$ 6.2	$ 18.0	$ 24.2
Deferred income taxes	$ (185.1)	$ 5.6	$ (179.5)
(Increase) decrease in inventories	$ (115.4)	$ (23.6)	$ (139.0)

	Year Ended September 30, 2021		
Consolidated Statement of Cash Flows	**As Previously Reported**	**Adjustments**	**As Revised**
Net income	$ 472.7	$ 36.2	$ 508.9
Deferred income taxes	$ 88.6	$ 11.2	$ 99.8
(Increase) decrease in inventories	$ 246.7	$ (47.4)	$ 199.3

	Year Ended September 30, 2020		
Consolidated Statement of Cash Flows	**As Previously Reported**	**Adjustments**	**As Revised**
Net income	$ 324.5	$ (3.0)	$ 321.5
Deferred income taxes	$ 22.4	$ (0.9)	$ 21.5
(Increase) decrease in inventories	$ (246.7)	$ 3.9	$ (242.8)

The following tables compare amounts that would have been reported under the LIFO method with amounts reported under the FIFO method in the Consolidated Financial Statements for the year ended December 31, 2022 and as of December 31, 2022 (in millions):

	Year Ended December 31, 2022		
Consolidated Statement of Income	**As Computed under LIFO**	**Adjustments**	**As Reported under FIFO**
Cost of sales	$ 7,285.5	$ (57.9)	$ 7,227.6
Gross income	$ 996.5	$ 57.9	$ 1,054.4
Operating income	$ 314.4	$ 57.9	$ 372.3
Income before income taxes and earnings (losses) of unconsolidated affiliates	$ 217.7	$ 57.9	$ 275.6
Provision for income taxes	$ 83.7	$ 13.8	$ 97.5
Income before earnings (losses) of unconsolidated affiliates	$ 134.0	$ 44.1	$ 178.1
Net income	$ 129.8	$ 44.1	$ 173.9
Basic Earnings per share	$ 1.98	$ 0.67	$ 2.65
Diluted Earnings per share	$ 1.96	$ 0.67	$ 2.63

	December 31, 2022		
Consolidated Balance Sheet	**As Computed under LIFO**	**Adjustments**	**As Reported under FIFO**
Inventories, net	$ 1,640.0	$ 225.6	$ 1,865.6
Total current assets	$ 4,306.5	$ 225.6	$ 4,532.1
Long-term net deferred tax asset	$ 164.3	$ (29.5)	$ 134.8
Total assets	$ 7,532.9	$ 196.1	$ 7,729.0
Income taxes payable	$ 76.2	$ 24.1	$ 100.3
Retained earnings	$ 3,143.0	$ 172.0	$ 3,315.0
Total shareholders' equity	$ 3,013.7	$ 172.0	$ 3,185.7
Total liabilities and shareholders' equity	$ 7,532.9	$ 196.1	$ 7,729.0

	Year Ended December 31, 2022		
Consolidated Statement of Cash Flows	**As Computed under LIFO**	**Adjustments**	**As Reported under FIFO**
Net income	$ 129.8	$ 44.1	$ 173.9
Deferred income taxes	$ (43.2)	$ (10.3)	$ (53.5)
Increase (decrease) in income taxes payable	$ 47.7	$ 24.1	$ 71.8
(Increase) decrease in inventories	$ (272.9)	$ (57.9)	$ (330.8)

Property, Plant and Equipment — Property, plant and equipment are recorded at cost. Depreciation expense is recognized over the estimated useful lives of the respective assets using straight-line and accelerated methods. The estimated useful lives range from ten to forty years for buildings and improvements, from four to twenty-five years for machinery and equipment and from three to ten years for software and related costs. The Company capitalizes interest on borrowings during the active construction period of major capital projects. All capitalized interest has been added to the cost of the underlying assets and is amortized over the useful lives of the assets.

Goodwill — Goodwill reflects the cost of an acquisition in excess of the aggregate fair value assigned to identifiable net assets acquired. Goodwill is not amortized; however, it is assessed for impairment at least annually and as triggering events or "indicators of potential impairment" occur. The Company performs its annual impairment test at the beginning of the fourth quarter of each fiscal year. The Company evaluates the recoverability of goodwill by estimating the fair value of the businesses to which the goodwill relates. Estimated cash flows and related goodwill are grouped at the reporting unit level. A reporting unit is an operating segment or, under certain circumstances, a component of an operating segment. When the fair value of the reporting unit is less than the carrying value of the reporting unit, a loss is recognized for the difference between the fair value of the reporting unit and the carrying value of the reporting unit. Impairment losses, limited to the carrying value of goodwill, represent the excess of the carrying amount of a reporting unit's goodwill over the implied fair value of that goodwill.

In evaluating the recoverability of goodwill, it is necessary to estimate the fair value of the reporting units. The Company evaluates the recoverability of goodwill utilizing the income approach and the market approach. The Company weighted the income approach more heavily (75%) as the Company believes the income approach more accurately considers long-term fluctuations in the U.S. and European construction markets than the market approach. Under the income approach, the Company determines fair value based on estimated future cash flows discounted by an estimated weighted-average cost of capital, which reflects the overall level of inherent risk of a reporting unit and the rate of return an outside investor would expect to earn. Estimated future cash flows are based on the Company's internal projection models, industry projections and other assumptions deemed reasonable by management. Rates used to discount estimated cash flows correspond to the Company's cost of capital, adjusted for risk where appropriate, and are dependent upon interest rates at a point in time. There are inherent uncertainties related to these factors and management's judgment in applying them to the analysis of goodwill impairment. Under the market approach, the Company derives the fair value of its reporting units based on revenue and earnings multiples of comparable publicly-traded companies. It is possible that assumptions underlying the impairment analysis will change in such a manner that impairment in value may occur in the future. See Note 11 of the Notes to Consolidated Financial Statements for information regarding the Company's annual impairment testing.

Impairment of Long-Lived Assets — Property, plant and equipment, right-of-use ("ROU") lease assets and amortizable intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If the sum of the expected undiscounted cash flows is less than the carrying value of the related asset or group of assets, a loss is recognized for the difference between the fair value and carrying value of the asset or group of assets.

Non-amortizable trade names are assessed for impairment at least annually and as triggering events or "indicators of potential impairment" occur. The Company performs its annual impairment test in the fourth quarter of its fiscal year. The Company evaluates the potential impairment by estimating the fair value of the non-amortizing intangible assets using the "relief from royalty" method. When the fair value of the non-amortizable trade name is less than the carrying value of the trade name, a loss is recognized for the difference between the fair value of the trade name and the carrying value of the trade name. Impairment losses, limited to the carrying value of the non-amortizable trade name, represent the excess of the carrying amount over the implied fair value of that non-amortizable trade name.

Customer Advances — Customer advances include amounts received in advance of the completion of vehicles. Advances with the Fire & Emergency segment bear interest at fixed rates determined at the time of the advance.

Other Long-Term Liabilities — Other long-term liabilities are comprised principally of the portions of the Company's pension liability, other post-employment benefit liability, tax liability, accrued warranty, accrued product liability and lease liabilities that are not expected to be settled in the subsequent twelve-month period.

Foreign Currency Translation — All balance sheet accounts have been translated into U.S. dollars using the exchange rates in effect at the balance sheet date. Income statement amounts have been translated using the average exchange rate during the period in which the transactions occurred. Resulting translation adjustments are included in "Accumulated other comprehensive loss." Foreign currency transaction gains or losses are included in "Miscellaneous, net" in the Consolidated Statements of Income. The Company recorded a net foreign currency transaction loss of $6.9 million in fiscal 2022, a net foreign currency transaction gain of $2.7 million for the year ended September 30, 2021 and a net foreign currency transaction loss of $2.7 million for the year ended September 30, 2020. Foreign currency transactions gains and losses for the three months ended December 31, 2021 netted to zero.

Derivative Financial Instruments — The Company recognizes all derivative financial instruments, such as foreign exchange contracts, in the consolidated financial statements at fair value regardless of the purpose or intent for holding the instrument. Changes in the fair value of derivative financial instruments are either recognized periodically in income or in equity as a component of comprehensive income depending on whether the derivative financial instrument qualifies for hedge accounting, and if so, whether it qualifies as a fair value hedge or cash flow hedge. Generally, changes in fair values of derivatives accounted for as fair value hedges are recorded in income along with the portions of the changes in the fair values of the hedged items that relate to the hedged risks. Changes in fair values of derivatives accounted for as cash flow hedges, to the extent they are effective as hedges, are initially recorded in other comprehensive income, net of deferred income taxes. Changes in fair value of derivatives not qualifying as hedges are reported in income each period. Cash flows from derivatives that are accounted for as cash flow or fair value hedges are included in the Consolidated Statements of Cash Flows in the same category as the item being hedged.

Reclassifications — Certain reclassifications have been made to the prior period financial statements to conform with the fiscal 2022 presentation and improve comparability between periods. Deferred income taxes, which were previously presented in “Other long-term assets”, and Long-term customer advances, which were previously presented in “Other long-term liabilities”, are now presented as separate lines within the December 31, 2022 Consolidated Balance Sheet. Gain (loss) on derivative instruments, net of tax, which was previously presented in “Other”, is now presented as a separate line within the Consolidated Statements of Shareholders’ Equity. Debt extinguishment, which was presented as a separate line item within the Consolidated Statement of Cash Flows for the year ended September 30, 2020, is now presented within “Other non-cash adjustments”. Unrealized loss on investments, which was previously presented in “Other non-cash adjustments” within the Consolidated Statements of Cash Flows for the three months ended December 31, 2021 and the years ended September 30, 2021 and 2020, is now presented as a separate line. Foreign currency transaction (gains) losses, which were previously presented in “Other non-cash adjustments” within the Consolidated Statements of Cash Flows for the years ended September 30, 2021 and 2020, are now presented as separate lines. Acquisition of equity securities, which was previously presented in “Other investing activities” within the Consolidated Statements of Cash Flows for the three months ended December 31, 2021 is now presented as a separate line. Acquisition of Common Stock for taxes on stock-based compensation, which was previously presented in “Repurchases of Common Stock” within the Consolidated Statements of Cash Flows for the three months ended December 31, 2021 and the years ended September 30, 2021 and 2020, is now presented as a separate line.

3. Revenue Recognition

The Company recognizes revenue in accordance with ASC 606. Accordingly, revenue is recognized when control of the goods or services promised under a contract are transferred to the customer either at a point in time (e.g., upon delivery) or over time (e.g., as the Company performs under the contract) in an amount that reflects the consideration to which the Company expects to be entitled to in exchange for the goods or services. The Company accounts for a contract when it has approval and commitment from both parties, the rights and payment terms of the parties are identified, the contract has commercial substance and collectability of consideration is probable. If collectability is not probable, the sale is deferred until collection becomes probable or payment is received.

Contracts are reviewed to determine whether there is one or multiple performance obligations. A performance obligation is a promise to transfer a distinct good or service to a customer and represents the unit of accounting for revenue recognition. For contracts with multiple performance obligations, the expected consideration (e.g., the transaction price) is allocated to each performance obligation identified in the contract based on the relative standalone selling price of each performance obligation, which is determinable based on observable standalone selling prices or is estimated using an expected cost plus a margin approach. Revenue is then recognized for the transaction price allocated to the performance obligation when control of the promised goods or services underlying the performance obligation is transferred. When the amount of consideration allocated to a performance obligation through this process differs from the invoiced amount, it results in a contract asset or liability. The identification of performance obligations within a contract requires significant judgment.

The following is a description of the primary activities from which the Company generates revenue.

Access Equipment, Fire & Emergency and Commercial segments revenue

The Company derives revenue in the Access Equipment, Fire & Emergency and Commercial segments (non-defense segments) through the sale of machinery, vehicles and related aftermarket parts and services. Customers include distributors, equipment rental providers and end-users. Contracts with customers generally exist upon the approval of a quote and/or purchase order by the Company and customer. Each contract is also assessed at inception to determine whether it is necessary to combine the contract with other contracts.

The Company's non-defense segments offer various customer incentives within contracts, such as sales and marketing rebates, volume discounts and interest subsidies, some of which are variable and therefore must be estimated by the Company. Transaction prices may also be impacted by rights of return, primarily within the aftermarket parts business, which requires the Company to record a liability and asset representing its rights and obligations in the event a return occurs. The estimated return liability is based on historical experience rates.

Revenue for performance obligations consisting of machinery, vehicle and aftermarket parts (together, "product") is recognized when the customer obtains control of the product, which typically occurs at a point in time, based on the shipping terms within the contract. In the Commercial segment, refuse collection and concrete mixer products are sold on both Company owned chassis and customer owned chassis. When performing work on a customer owned chassis, revenue is recognized over time based on the cost-to-cost method, as the Company is enhancing a customer owned asset.

All non-defense segments offer aftermarket services related to their respective products such as repair, refurbishment and maintenance (together, "services"). The Company generally recognizes revenue on service performance obligations over time using the method that results in the most faithful depiction of transfer of control to the customer. Non-defense segments also offer extended warranty coverage as an option on most products. The Company considers extended warranties to be service-type warranties and therefore a performance obligation. Service-type warranties differ from the Company's standard, or assurance-type warranties, as they are generally separately priced and negotiated as part of the contract and/or provide additional coverage beyond what the customer or customer group that purchases the product would receive under an assurance-type warranty. The Company has concluded that its extended warranties are stand-ready obligations to perform and therefore recognizes revenue ratably over the coverage period. The Company also provides a standard warranty on its products and services at no additional cost to its customers in most instances. See Note 16 of the Notes to Consolidated Financial Statements for further discussion on product assurance warranties.

Defense segment revenue

The majority of the Company's Defense segment sales are derived through long-term contracts with the U.S. government to design, develop, manufacture or modify defense and other specialty vehicles. These contracts, which also include those under the U.S. Government-sponsored Foreign Military Sales (FMS) program, accounted for approximately 95% of Defense segment revenue in fiscal 2022. Contracts with Defense segment customers are generally fixed-price or cost-reimbursement type contracts. Under fixed-price contracts, the price paid to the Company is generally not adjusted to reflect the Company's actual costs except for costs incurred as a result of contract modifications. Certain fixed-price contracts include an incentive component under which the price paid to the Company is subject to adjustment based on the actual costs incurred. Under cost-reimbursement contracts, the price paid to the Company is determined based on the allowable costs incurred to perform plus a fee. The fee component of cost-reimbursement contracts can be fixed based on negotiations at contract inception or can vary based on performance against target costs established at the time of contract inception. The Company also designs, develops, manufactures or modifies defense products for international customers through Direct Commercial Sale contracts. The Defense segment supports its products through the sale of aftermarket parts and services. Aftermarket contracts can range from long-term supply agreements to ad hoc purchase orders for replacement parts.

The Company evaluates Defense segment contracts at inception to identify performance obligations. The goods and services in Defense segment contracts are typically not distinct from one another as they are generally customized and have complex inter-relationships and the Company is responsible for overall management of the contract. As a result, Defense segment contracts are typically accounted for as a single performance obligation. The Defense segment provides standard warranties for its products for periods that typically range from one to two years. These assurance-type warranties typically cannot be purchased separately and do not meet the criteria to be considered a performance obligation. See Note 16 of the Notes to Consolidated Financial Statements for further discussion on product assurance warranties.

The Company determines the transaction price for each contract at inception based on the consideration that it expects to receive for the goods and services promised under the contract. This determination is made based on the Company's current rights, excluding the impact of any subsequent contract modifications (including unexercised options) until they become legally enforceable. Contract modifications frequently occur within the Defense segment. The Company evaluates each modification to identify changes that impact price or scope of its contracts, which are then assessed to determine if the modification should be accounted for as an adjustment to an existing contract or as a separate contract. Contract modifications within the Defense segment are generally accounted for as a cumulative catch-up adjustment to existing contracts as they are not distinct from the goods and services within the existing contract.

For Defense segment contracts that include a variable component in the sale price, the Company estimates variable consideration. Variable consideration is included within the contract's transaction price to the extent it is probable that a significant reversal of revenue will not occur. The Company evaluates its estimates of variable consideration on an ongoing basis and any adjustments are accounted for as changes in estimates in the period identified. Common forms of variable consideration within Defense segment contracts include cost reimbursement contracts that contain incentives, customer reimbursement rights and regulatory or customer negotiated penalties tied to contract performance.

The Company recognizes revenue on Defense segment contracts as performance obligations are satisfied and control of the underlying goods and services is transferred to the customer. In making this evaluation, the Defense segment considers contract terms, payment terms and whether there is an alternative future use for the good or service. Through this process the Company has concluded that substantially all of the Defense segment's performance obligations, including a majority of performance obligations for aftermarket goods and services, transfer control to the customer over time. For U.S. government and FMS program contracts, this determination is supported by the inclusion of clauses within contracts that allow the customer to terminate a contract at its convenience. When the clause is present, the Company is entitled to compensation for the work performed through the date of notification at a price that reflects actual costs plus a reasonable margin in exchange for transferring its work in process to the customer. For contracts that do not contain termination for convenience provisions, the Company is generally able to support the over time transfer of control determination as a result of the customized nature of its goods and services, which create assets without an alternative use and contractual rights.

The Defense segment utilizes the cost-to-cost method of percentage-of-completion to recognize revenue on its performance obligations that are satisfied over time because it best depicts the transfer of control to the customer. Under the cost-to-cost method of percentage-of-completion, the Company measures progress based on the ratio of costs incurred to date to total estimated costs for the performance obligation. The Company recognizes changes in estimated sales or costs and the resulting profit or loss on a cumulative basis. Contract adjustments represent the cumulative effect of the changes on prior periods. If a loss is expected on a performance obligation, the complete estimated loss is recorded in the period in which the loss is identified.

There is significant judgment involved in estimating sales and costs within the Defense segment. Each contract is evaluated at contract inception to identify risks and estimate revenue and costs. In performing this evaluation, the Defense segment considers risks of contract performance such as technical requirements, schedule, duration and key contract dependencies. These considerations are then factored into the Company's estimated revenue and costs. Preliminary contract estimates are subject to change throughout the duration of the contract as additional information becomes available that impacts risks and estimated revenue and costs. In addition, as contract modifications (e.g., new orders) are received, the additional units are factored into the overall contract estimate of costs and transaction price. During fiscal 2022, the Company experienced significant inflation in its material, labor and overhead costs. As the contract prices are generally fixed, these increases caused significant unfavorable cumulative catch-up adjustments. Contract adjustments impacted the Company's results as follows (in millions, except per share amounts):

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Net sales	$ (33.9)	$ (0.1)	$ 13.1	$ 31.2
Operating income	(46.2)	(7.7)	19.4	16.2
Net income	(35.4)	(5.9)	14.9	12.4
Diluted earnings per share	$ (0.54)	$ (0.09)	$ 0.21	$ 0.18

The Defense segment incurs pre-production engineering, factory setup and other contract fulfillment costs related to products produced for its customers under long-term contracts. An asset is recognized for costs incurred to fulfill an existing contract or highly-probable anticipated contract if such costs generate or enhance resources that will be used in satisfying performance obligations in the future and the costs are expected to be recovered. Costs related to customer-owned tooling that will be used in production and for which the customer has provided a non-cancelable right to use the tooling to perform during the contract term are also recognized as an asset. Under the Next Generation Delivery Vehicles (NGDV) contract with the United States Postal Service (USPS), the Company has determined that it does not transfer control of any goods or services to the USPS until the construction of the production vehicles. Deferred contract related costs will be amortized over the anticipated production volume of the NGDV contract. Deferred contract fulfillment and customer-owned tooling costs are included in “Other long-term assets” within the Company’s Consolidated Balance Sheets. The Company periodically assesses its contract fulfillment and customer-owned tooling for impairment. The Company did not record any impairment losses on contract fulfillment or customer-owned tooling costs in fiscal 2022, the three months ended December 31, 2021, or the years ended September 30, 2021 and September 30, 2020.

Deferred contract related costs, the majority of which are related to the NGDV contract, consisted of the following (in millions):

	December 31, 2022	December 31, 2021	September 30, 2021
Costs for anticipated contracts	$ 6.8	$ 4.9	$ 4.8
Engineering costs	256.1	60.0	42.3
Factory setup costs	16.4	4.1	2.2
Customer-owned tooling	136.5	4.2	1.3
Deferred contract related costs	$ 415.8	$ 73.2	$ 50.6

Disaggregation of Revenue

Consolidated net sales disaggregated by segment and timing of revenue recognition are as follows (in millions):

Year Ended December 31, 2022	Access Equipment	Defense	Fire & Emergency	Commercial	Corporate and Intersegment Eliminations	Total
Point in time	$ 3,923.4	$ 13.0	$ 1,086.8	$ 670.4	$ (7.1)	$ 5,686.5
Over time	48.7	2,128.3	24.8	393.7	—	2,595.5
	$ 3,972.1	$ 2,141.3	$ 1,111.6	$ 1,064.1	$ (7.1)	$ 8,282.0

Three Months Ended December 31, 2021 (transition period)	Access Equipment	Defense	Fire & Emergency	Commercial	Corporate and Intersegment Eliminations	Total
Point in time	$ 818.8	$ 4.0	$ 214.7	$ 135.8	$ (2.7)	$ 1,170.6
Over time	14.7	527.5	3.9	74.8	0.2	621.1
	$ 833.5	$ 531.5	$ 218.6	$ 210.6	$ (2.5)	$ 1,791.7

Year Ended September 30, 2021	Access Equipment	Defense	Fire & Emergency	Commercial	Corporate and Intersegment Eliminations	Total
Point in time	$ 3,006.9	$ 43.5	$ 1,205.9	$ 532.8	$ (25.1)	$ 4,764.0
Over time	65.2	2,482.1	20.7	404.8	0.5	2,973.3
	$ 3,072.1	$ 2,525.6	$ 1,226.6	$ 937.6	$ (24.6)	$ 7,737.3

	Year Ended September 30, 2020					
	Access Equipment	Defense	Fire & Emergency	Commercial	Corporate and Intersegment Eliminations	Total
Point in time	$ 2,437.5	$ 34.8	$ 1,085.1	$ 556.7	$ (36.0)	$ 4,078.1
Over time	77.6	2,276.7	21.9	401.1	1.4	2,778.7
	$ 2,515.1	$ 2,311.5	$ 1,107.0	$ 957.8	$ (34.6)	$ 6,856.8

See Note 23 of the Notes to Consolidated Financial Statements for further disaggregated sales information.

Contract Assets and Contract Liabilities

In instances where the Company recognizes revenue prior to having an unconditional right to payment, the Company records a contract asset. The Company reduces contract assets when the Company has an unconditional right to payment. The Company periodically assesses its contract assets for impairment. Contract assets and liabilities are determined on a net basis for each contract. The Company did not record any impairment losses on contract assets in fiscal 2022, the three months ended December 31, 2021, or the years ended September 30, 2021 and September 30, 2020.

The Company is generally entitled to bill its customers upon satisfaction of its performance obligations, except for its long-term contracts in the Defense segment which typically allow for billing upon acceptance of the finished goods, payments received from customers in advance of performance and extended warranties that are billed in advance of the warranty coverage period. Customer payment is usually received shortly after billing and payment terms generally do not exceed one year. See Note 8 of the Notes to Consolidated Financial Statements for additional information on the Company's receivables balances.

With the exception of the Fire & Emergency segment, the Company's contracts typically do not contain a significant financing component. In the Fire & Emergency segment, customers earn interest on customer advances at a rate determined in a separate financing transaction between the Fire & Emergency segment and the customer at contract inception. Interest charges recorded in "Interest expense" in the Consolidated Statements of Income was $23.4 million in fiscal 2022, $4.6 million for the three months ended December 31, 2021, $17.2 million for the year ended September 30, 2021 and $15.6 million for the year ended September 30, 2020.

The timing of billing does not always match the timing of revenue recognition. In instances where a customer pays consideration in advance or when the Company is entitled to bill a customer in advance of recognizing the related revenue, the Company records a contract liability. The Company reduces contract liabilities when the Company transfers control of the promised goods and services. Contract liabilities consisted of the following (in millions):

	December 31,		September 30,
	2022	2021	2021
Customer advances	$ 696.7	$ 690.9	$ 654.3
Other current liabilities	77.4	81.9	82.0
Long-term customer advances	1,020.5	207.0	118.7
Other long-term liabilities	66.8	54.9	56.5
Total contract liabilities	$ 1,861.4	$ 1,034.7	$ 911.5

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Beginning liabilities recognized in revenue	$ 436.9	$ 126.9	$ 521.7	$ 441.0

The Company offers a variety of service-type warranties, including optionally priced extended warranty programs. Outstanding balances related to service-type warranties are included within contract liabilities. Revenue related to service-type warranties is deferred until after the expiration of the standard warranty period. The revenue is then recognized in income over the term of the extended warranty period in proportion to the costs that are expected to be incurred. Changes in the Company's service-type warranties were as follows (in millions):

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Balance at beginning of period	$ 66.9	$ 65.8	$ 64.4	$ 68.2
Deferred revenue for new service warranties	31.5	6.4	26.2	23.6
Amortization of deferred revenue	(21.7)	(5.3)	(25.0)	(27.9)
Foreign currency translation	(0.6)	—	0.2	0.5
Balance at end of period	$ 76.1	$ 66.9	$ 65.8	$ 64.4

Classification of service-type warranties in the Consolidated Balance Sheets consisted of the following (in millions):

	December 31,		September 30,
	2022	2021	2021
Other current liabilities	$ 26.8	$ 22.3	$ 21.8
Other long-term liabilities	49.3	44.6	44.0
	$ 76.1	$ 66.9	$ 65.8

Remaining Performance Obligations

As of December 31, 2022, the Company had unsatisfied performance obligations for contracts with an original duration greater than one year totaling $9.1 billion, of which $2.8 billion is expected to be satisfied and revenue recognized in fiscal 2023, $2.3 billion is expected to be satisfied and revenue recognized in fiscal 2024 and $4.0 billion is expected to be satisfied and revenue recognized beyond fiscal 2024.

4. Stock-Based Compensation

In February 2017, the Company's shareholders approved the 2017 Incentive Stock and Awards Plan (the "2017 Stock Plan"). The 2017 Stock Plan replaced the 2009 Incentive Stock and Awards Plan (as amended, the "2009 Stock Plan"). While no new awards will be granted under the 2009 Stock Plan, awards previously made under that plan that were outstanding as of the approval date of the 2017 Stock Plan will remain outstanding and continue to be governed by the provisions of that plan. At December 31, 2022, the Company had reserved 3,454,322 shares of Common Stock available for issuance to provide for the exercise of outstanding stock options and the issuance of Common Stock under incentive compensation awards, including awards issued prior to the effective date of the 2017 Stock Plan.

Under the 2017 Stock Plan, officers, directors, including non-employee directors, and employees of the Company may be granted stock options, stock appreciation rights (SAR), performance shares, performance units, shares of Common Stock, restricted stock, restricted stock units (RSU) or other stock-based awards. The 2017 Stock Plan provides for the granting of options to purchase shares of the Company's Common Stock at not less than the fair market value of such shares on the date of grant. Stock options granted under the 2017 Stock Plan generally become exercisable in equal installments over a three-year period, beginning with the first anniversary of the date of grant of the option, unless a shorter or longer duration is established by the Human Resources Committee of the Board of Directors at the time of the option grant. Stock options terminate not more than ten years from the date of grant. The exercise price of stock options and the market value of restricted stock unit awards are determined based on the closing market price of the Company's Common Stock on the date of grant. Except to the extent vesting is accelerated upon early retirement and except for performance shares and performance units, vesting is based solely on continued service as an employee of the Company. The Company recognizes stock-based compensation expense over the requisite service period for vesting of an award, or to an employee's eligible retirement date, if earlier and applicable.

Information related to the Company's equity-based compensation plans in effect as of December 31, 2022 was as follows:

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options or Vesting of Share Awards	Weighted-Average Exercise Price of Outstanding Options	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans
Equity compensation plans approved by security holders	956,284	$ 79.86	2,498,048
Equity compensation plans not approved by security holders	—	—	—
	956,284	$ 79.86	2,498,048

Total stock-based compensation expense was as follows (in millions):

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Stock options	$ 0.3	$ 0.2	$ 1.8	$ 6.8
Stock awards (shares and units)	25.7	3.5	19.3	15.8
Performance share awards	2.6	0.5	6.1	6.7
Cash-settled stock appreciation rights	(0.8)	0.3	1.1	0.2
Cash-settled restricted stock unit awards	0.9	0.4	1.5	0.7
Total stock-based compensation cost	28.7	4.9	29.8	30.2
Income tax benefit recognized for stock-based compensation	(4.2)	(0.8)	(4.4)	(3.6)
Stock-based compensation cost, net of tax	$ 24.5	$ 4.1	$ 25.4	$ 26.6

Stock Options — A summary of the Company's stock option activity is as follows:

	Year Ended December 31, 2022		Three Months Ended December 31, (transition period) 2021		Year Ended September 30, 2021		Year Ended September 30, 2020	
	Options	Weighted-Average Exercise Price	Options	Weighted-Average Exercise Price	Options	Weighted-Average Exercise Price	Options	Weighted-Average Exercise Price
Outstanding, beginning of period	433,026	$ 78.37	471,676	$ 77.96	1,083,402	$ 74.38	1,328,390	$ 62.62
Granted	—	—	—	—	—	—	301,025	90.28
Forfeited	(4,170)	90.28	(2,002)	85.04	(8,065)	81.40	(40,965)	79.00
Expired	(4,583)	84.67	—	—	(3,999)	86.59	(5,869)	84.25
Exercised	(47,504)	64.90	(36,648)	72.69	(599,662)	71.38	(499,179)	52.18
Outstanding, end of period	376,769	79.86	433,026	78.37	471,676	77.96	1,083,402	74.38
Exercisable, end of period	376,769	79.86	364,403	76.13	251,049	74.73	537,241	68.16

Stock options outstanding and exercisable as of December 31, 2022 were as follows (in millions, except share and per share amounts):

	Outstanding				Exercisable			
Exercise Prices	Options	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price	Aggregate Intrinsic Value	Options	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price	Aggregate Intrinsic Value
\$60.01 - \$80.00	153,431	4.7	66.29	3.4	153,431	4.7	66.29	3.4
\$80.01 - \$100.00	223,338	6.3	89.19	0.1	223,338	6.3	89.19	0.1
	376,769	5.6	79.86	\$ 3.5	376,769	5.6	79.86	\$ 3.5

The aggregate intrinsic values in the tables above represent the total pre-tax intrinsic value (difference between the Company's closing stock price on the last trading day of fiscal 2022 and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on December 31, 2022. This amount changes based on the fair market value of the Company's Common Stock.

The total intrinsic value of options exercised was \$1.8 million in fiscal 2022, \$1.5 million in the three months ended December 31, 2021, \$22.6 million in the year ended September 30, 2021 and \$18.5 million in the year ended September 30, 2020. The actual income tax benefit realized totaled \$0.4 million in fiscal 2022, \$0.3 million in the three months ended December 31, 2021, \$3.5 million in the year ended September 30, 2021 and \$4.3 million in the year ended September 30, 2020.

As of December 31, 2022, no unrecognized compensation cost remains related to outstanding stock options.

The following weighted-average assumptions were used in the Black-Scholes valuation model for stock options granted during the year ended September 30, 2020:

Assumptions:	
Expected term (in years)	5.4
Expected volatility	34.10 %
Risk-free interest rate	1.63 %
Expected dividend yield	1.37 %

The expected option term represents the period of time that the options granted are expected to be outstanding and was based on historical experience. The Company used its historical stock prices over the expected term as the basis for the Company's volatility assumption. The assumed risk-free interest rates were based on five-year U.S. Treasury rates in effect at the time of grant. The expected dividend yield was based on average actual yield on the ex-dividend date. The weighted-average per share grant date fair values for stock option grants during the year ended September 30, 2020 was \$26.16.

Stock Awards — A summary of the Company's stock award activity is as follows:

	Year Ended December 31, 2022		Three Months Ended December 31, (transition period) 2021		Year Ended September 30, 2021		Year Ended September 30, 2020	
	Number of Shares	Weighted-Average Grant Date Fair Value	Number of Shares	Weighted-Average Grant Date Fair Value	Number of Shares	Weighted-Average Grant Date Fair Value	Number of Shares	Weighted-Average Grant Date Fair Value
Nonvested, beginning of period	308,941	$ 90.10	394,888	$ 81.58	346,808	$ 79.44	411,510	$ 72.66
Granted	255,375	109.66	63,800	114.89	307,025	82.80	183,725	87.82
Forfeited	(26,020)	97.24	(4,428)	86.08	(36,545)	78.81	(27,076)	80.57
Vested	(174,635)	88.98	(145,319)	77.97	(222,400)	80.39	(221,351)	73.64
Nonvested, end of period	363,661	103.86	308,941	90.10	394,888	81.58	346,808	79.44

The total fair value of shares vested was $16.3 million during fiscal 2022, $16.5 million in the three months ended December 31, 2021, $21.0 million in the year ended September 30, 2021 and $18.6 million in the year ended September 30, 2020. The actual income tax benefit realized totaled $2.5 million in fiscal 2022, $3.1 million in the three months ended December 31, 2021, $2.0 million in the year ended September 30, 2021 and $3.1 million in the year ended September 30, 2020.

As of December 31, 2022, total unrecognized compensation cost related to stock awards was $14.8 million, net of estimated forfeitures, which the Company expects to be recognized over a weighted-average period of 2.0 years.

Performance Share Awards — A summary of the Company's performance share awards activity is as follows. There was no activity related to performance share awards during the three months ended December 31, 2021:

	Year Ended December 31, 2022		Year Ended September 30, 2021		Year Ended September 30, 2020	
	Number of Shares	Weighted-Average Grant Date Fair Value	Number of Shares	Weighted-Average Grant Date Fair Value	Number of Shares	Weighted-Average Grant Date Fair Value
Nonvested, beginning of period	72,475	$ 93.62	110,450	$ 89.54	124,750	$ 84.10
Granted	57,250	126.60	86,550	86.09	55,325	109.09
Forfeited	(3,748)	114.83	(52,099)	90.03	(16,615)	92.88
Performance adjustments	369	107.45	63,843	80.45	33,941	87.44
Vested	(28,746)	103.47	(136,269)	80.73	(86,951)	92.73
Nonvested, end of period	97,600	108.20	72,475	93.62	110,450	89.54

Performance share awards generally vest over a three-year service period following the grant date. Performance shares vest under three separate sets of measurement criteria. The first type vest only if the Company's total shareholder return (TSR) over the three-year term of the awards compares favorably to that of a comparator group of companies. The second type vest only if the Company's return on invested capital (ROIC) over the vesting period compares favorably to that of a comparator group of companies. The third type vest only if the Company's actual results for Diversity, Equity, and Inclusion and Environmental, Social and Governance (DEI/ESG) measures compare favorably to the targets set by the Company.

Potential payouts range from zero to 200% of the target awards and changes from target amounts are reflected as performance adjustments. Actual payouts for TSR performance share awards vesting in the years ended December 31, 2022, September 30, 2021 and September 30, 2020 were 83%, 185% and 111% of target levels, respectively. Actual payout for the ROIC performance share award vesting in the years ended December 31, 2022, September 30, 2021 and September 30, 2020 were 122%, 200%, and 200% of target levels, respectively. No actual payouts have occurred for the DEI/ESG awards as no awards have reached the end of the vesting period. In January 2023, 3,435 shares of Common Stock were issued from treasury for unpaid performance shares that vested during the year ended December 31, 2022.

The total fair value of performance shares vested was $2.3 million in fiscal 2022, $15.4 million in the year ended September 30, 2021 and $6.9 million in the year ended September 30, 2020. The actual income tax benefit realized totaled $0.1 million in fiscal 2022, $0.5 million in the year ended September 30, 2021 and $0.2 million in the year ended September 30, 2020.

As of December 31, 2022, the Company had $4.3 million of unrecognized compensation expense related to performance share awards, which will be recognized over a weighted-average period of 1.7 years.

The grant date fair values of the TSR performance share awards were estimated using a Monte Carlo simulation model utilizing the following weighted-average assumptions:

Total Shareholder Return Performance Shares Granted During	Year Ended December 31, 2022	Year Ended September 30, 2021	Year Ended September 30, 2020
Assumptions:			
Expected term (in years)	2.86	2.87	2.87
Expected volatility	38.52 %	40.33 %	31.16 %
Risk-free interest rate	1.64 %	0.23 %	1.59 %

The Company used its historical stock prices as the basis for the Company's volatility assumption. The assumed risk-free interest rates were based on U.S. Treasury rates in effect at the time of grant. The expected term was based on the vesting period. The weighted-average fair value used to record compensation expense for TSR performance share awards granted during the years ended December 31, 2022, September 30, 2021 and September 30, 2020 was $146.99, $94.86 and $137.74 per award, respectively. There were no TSR performance share awards granted during the three months ended December 31, 2021.

The grant date fair value of the ROIC awards were determined based on the Company's stock price at the time of the grant and the anticipated awards expected to vest. Compensation expense is recorded ratably over the vesting period based on the amount of award that is expected to be earned under the plan formula, adjusted each reporting period based on current information.

The grant date fair value of the DEI/ESG awards were determined based on the Company's stock price at the time of the grant and the anticipated awards expected to vest. Compensation expense is recorded ratably over the vesting period based on the amount of award that is expected to be earned under the plan formula, adjusted each reporting period based on current information.

Cash-Settled Stock Appreciation Rights — In the year ended September 30, 2020, the Company granted employees 14,875 cash-settled SARs. Each SAR award represents the right to receive cash equal to the excess of the per share price of the Company's Common Stock on the date that a participant exercises such right over the grant date price of the Company's Common Stock. Compensation cost for SARs is remeasured at each reporting period based on the estimated fair value on the date of grant using the Black Scholes option-pricing model, utilizing assumptions similar to stock option awards and is recognized as an expense over the requisite service period. The total value of SARs exercised was $0.2 million in fiscal 2022, $0.1 million in the three months ended December 31, 2021, $0.5 million in the year ended September 30, 2021 and $0.7 million in the year ended September 30, 2020.

Cash-Settled Restricted Stock Units — The Company granted employees 11,850 cash-settled RSUs in fiscal 2022, 2,450 cash-settled RSUs in the three months ended December 31, 2021, 14,550 cash-settled RSUs in the year ended September 30, 2021 and 7,925 cash-settled RSUs in the year ended September 30, 2020. Each RSU award provides recipients the right to receive cash equal to the value of a share of the Company's Common Stock at predetermined vesting dates. Compensation cost for RSUs is remeasured at each reporting period and is recognized as an expense over the requisite service period. The total value of RSUs vested was $0.7 million in fiscal 2022, $1.1 million in the three months ended December 31, 2021, $0.7 million in the year ended September 30, 2021 and $0.8 million in the year ended September 30, 2020.

5. Employee Benefit Plans

Defined Benefit Plans — Oshkosh and certain of its subsidiaries sponsor multiple defined benefit pension plans for certain employees providing services to Oshkosh, Oshkosh Defense, Airport Products, Oshkosh Commercial and Pierce. The benefits provided are based primarily on average compensation, years of service and date of birth. Hourly plans are generally based on years of service and a benefit dollar multiplier. The Company periodically amends the plans, including changing the benefit dollar multipliers and other revisions. In December 2012, salaried participants in the pension plans no longer receive credit, other than for vesting purposes, for eligible earnings. In December 2013, the Pierce pension plan was amended to close participation in the plan for new production employees. In October 2016, the Oshkosh Defense hourly defined benefit pension plan was closed to new production employees.

On July 27, 2021, the Company's Board of Directors approved a plan to terminate and settle the defined benefit plan related to salaried participants. In the fourth quarter of fiscal 2022, the Company transferred plan assets to an insurance company that will provide for and pay the remaining benefits to participants. The Company incurred a charge of $33.6 million associated with the settlement of this plan. The pre-tax balance in Accumulated Other Comprehensive Income associated with the plan, along with costs related to the settlement, were recorded as a component of "Miscellaneous, net", with the related income tax effects recorded in "Provision for income taxes", in the Consolidated Statements of Income.

Determination of defined benefit pension and postretirement plan obligations and their associated expenses requires the use of actuarial valuations to estimate the benefits that employees earn while working, as well as the present value of those benefits. The Company uses the services of independent actuaries to assist with these calculations. The Company determines the discount rate used each year based on the rate of return currently available on a portfolio of high-quality fixed-income investments with a maturity that is consistent with the projected benefit payout period. The Company's long-term rate of return on assets is based on consideration of historical and forward-looking returns and the current asset allocation strategy. The plans' expected return on assets is based on the plans' historical returns and expected returns for the asset classes in which the plans are invested.

Supplemental Executive Retirement Plans (SERP) — The Company maintains defined benefit and defined contribution SERPs for certain executive officers of Oshkosh and its subsidiaries. In fiscal 2013, the Oshkosh defined benefit SERP was amended to freeze benefits under the plan and executive officers in the defined benefit SERP at that time became eligible for the new Oshkosh defined contribution SERP. At the same time, the Company established the Trust to fund obligations under the Oshkosh SERPs. As of December 31, 2022, the Trust held assets of $13.8 million. The Trust assets are subject to claims of the Company's creditors. The Trust assets are included in "Other current assets" and "Other long-term assets" in the Consolidated Balance Sheets. The Company recognized income of $0.5 million in fiscal 2022, expense of $0.4 million in the three months ended December 31, 2021, expense of $2.6 million in the year ended September 30, 2021 and expense of $1.6 million in the year ended September 30, 2020, related to the Oshkosh defined contribution SERP.

Postretirement Medical Plans — Oshkosh and certain of its subsidiaries sponsor multiple postretirement benefit plans for Oshkosh Defense, JLG, and Kewaunee hourly employees, retirees and their spouses. The plans generally provide health benefits based on years of service and date of birth. These plans are unfunded.

Changes in benefit obligations and plan assets, as well as the funded status of the Company's defined benefit pension plans were as follows (in millions):

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021
Accumulated benefit obligation at end of period	$ 327.9	$ 602.3	$ 594.2
Change in projected benefit obligation			
Benefit obligation at beginning of period	$ 611.8	$ 604.2	$ 613.6
Service cost	10.3	2.6	11.5
Interest cost	17.0	4.3	16.4
Actuarial loss (gain)	(148.5)	5.1	(22.6)
Settlement	(135.4)	—	—
Benefits paid	(18.2)	(4.6)	(16.4)
Currency translation adjustments	(3.8)	0.2	1.7
Benefit obligation at end of period	$ 333.2	$ 611.8	$ 604.2
Change in plan assets			
Fair value of plan assets at beginning of period	$ 533.0	$ 515.9	$ 437.3
Actual return on plan assets	(102.2)	23.5	71.3
Company contributions	28.6	0.5	25.2
Settlement	(135.4)	—	—
Expenses paid	(2.9)	(2.5)	(2.9)
Benefits paid	(18.2)	(4.6)	(16.4)
Currency translation adjustments	(4.2)	0.2	1.4
Fair value of plan assets at end of period	$ 298.7	$ 533.0	$ 515.9
Funded status of plan - at end of period	$ (34.5)	$ (78.8)	$ (88.3)
Recognized in consolidated balance sheet at end of period			
Prepaid benefit cost (long-term asset)	$ 6.2	$ 2.9	$ 2.1
Accrued benefit liability (current liability)	(2.0)	(2.0)	(2.0)
Accrued benefit liability (long-term liability)	(38.7)	(79.7)	(88.4)
	$ (34.5)	$ (78.8)	$ (88.3)
Recognized in accumulated other comprehensive income (loss) as of end of period (net of taxes)			
Net actuarial loss	$ 27.8	$ (18.9)	$ (29.0)
Prior service (cost) benefit	(9.6)	(11.2)	(11.6)
	$ 18.2	$ (30.1)	$ (40.6)
Weighted-average assumptions as of end of period			
Discount rate	5.09 %	2.83 %	2.91 %
Expected return on plan assets	6.50 %	4.31 %	4.46 %

Pension benefit plans with accumulated benefit obligations in excess of plan assets consisted of the following (in millions):

	December 31, 2022	December 31, 2021	September 30, 2021
Projected benefit obligation	$ 316.0	$ 571.6	$ 565.7
Accumulated benefit obligation	310.8	562.0	555.7
Fair value of plan assets	275.4	489.9	475.4

Changes in benefit obligations and plan assets, as well as the funded status of the Company's postretirement benefit plans were as follows (in millions):

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021
Accumulated benefit obligation at end of period	$ 44.6	$ 55.7	$ 53.3
Change in projected benefit obligation			
Benefit obligation at beginning of period	$ 55.7	$ 53.3	$ 53.3
Service cost	2.2	0.5	2.2
Interest cost	1.4	0.3	1.2
Actuarial loss (gain)	(12.0)	2.2	(1.1)
Benefits paid	(2.7)	(0.6)	(2.3)
Benefit obligation at end of period	$ 44.6	$ 55.7	$ 53.3
Change in plan assets			
Company contributions	$ 2.7	$ 0.7	$ 2.3
Benefits paid	(2.7)	(0.7)	(2.3)
Fair value of plan assets at end of period	$ —	$ —	$ —
Funded status of plan - at end of period	$ (44.6)	$ (55.7)	$ (53.3)
Recognized in consolidated balance sheet at end of period			
Accrued benefit liability (current liability)	$ (2.2)	$ (2.6)	$ (2.4)
Accrued benefit liability (long-term liability)	(42.4)	(53.1)	(50.9)
	$ (44.6)	$ (55.7)	$ (53.3)
Recognized in accumulated other comprehensive income (loss) as of end of period (net of taxes)			
Net actuarial loss	$ 2.7	$ (6.7)	$ (5.1)
Prior service (cost) benefit	10.2	11.3	11.5
	$ 12.9	$ 4.6	$ 6.4
Weighted-average assumptions as of end of period			
Discount rate	4.95 %	2.62 %	2.61 %
Expected return on plan assets	n/a	n/a	n/a

The components of net periodic benefit cost were as follows (in millions):

	Pension Benefits			
	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Components of net periodic benefit cost				
Service cost	$ 10.3	$ 2.6	$ 11.5	$ 10.1
Interest cost	17.0	4.3	16.4	17.1
Expected return on plan assets	(20.6)	(5.3)	(19.8)	(20.6)
Amortization of prior service cost	2.2	0.6	2.3	1.6
Settlement	33.6	—	—	—
Curtailment	—	—	—	0.1
Amortization of net actuarial (gain) loss	1.0	0.2	4.9	3.3
Expenses paid	3.0	2.5	3.0	4.0
Net periodic benefit cost	$ 46.5	$ 4.9	$ 18.3	$ 15.6
Other changes in plan assets and benefit obligations recognized in other comprehensive income				
Net actuarial (gain) loss	$ (26.2)	$ (13.0)	$ (74.1)	$ 29.4
Prior service cost	—	—	—	9.8
Amortization of prior service cost	(2.2)	(0.6)	(2.3)	(1.6)
Settlement	(33.6)	—	—	—
Amortization of net actuarial gain (loss)	(1.0)	(0.2)	(4.9)	(3.3)
	$ (63.0)	$ (13.8)	$ (81.3)	$ 34.3
Weighted-average assumptions				
Discount rate	2.83%	2.91%	2.71%	3.17%
Expected return on plan assets	4.31%	4.46%	4.89%	5.49%

	Postretirement Health and Other			
	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Components of net periodic benefit cost				
Service cost	$ 2.2	$ 0.5	$ 2.2	$ 3.5
Interest cost	1.4	0.4	1.2	1.6
Amortization of prior service cost	(1.4)	(0.4)	(1.4)	(0.9)
Amortization of net actuarial (gain) loss	0.3	0.1	0.3	(0.2)
Net periodic benefit cost	$ 2.5	$ 0.6	$ 2.3	$ 4.0
Other changes in plan assets and benefit obligations recognized in other comprehensive income				
Net actuarial (gain) loss	$ (12.0)	$ 2.2	$ (1.1)	$ 5.5
Prior service cost	—	—	—	(6.5)
Amortization of prior service cost	1.4	0.4	1.4	0.9
Amortization of net actuarial gain (loss)	(0.3)	(0.1)	(0.3)	0.2
	$ (10.9)	$ 2.5	$ —	$ 0.1
Weighted-average assumptions				
Discount rate	2.62%	2.61%	2.36%	3.10%
Expected return on plan assets	n/a	n/a	n/a	n/a

Components of net periodic benefit cost other than “Service cost” and “Expenses paid” are included in “Miscellaneous, net” in the Consolidated Statements of Income.

Amounts expected to be recognized in pension and supplemental employee retirement plan net periodic benefit costs during fiscal 2023 included in "Accumulated other comprehensive loss" in the Consolidated Balance Sheet at December 31, 2022 are prior service costs of $1.9 million ($1.4 million net of tax) and unrecognized net actuarial losses of $2.4 million ($1.8 million net of tax).

The Company's policy is to fund the pension plans in amounts that comply with contribution limits imposed by law. The Company does not expect to make contributions to its pension plans in fiscal 2023.

The Company's Board of Directors has appointed an Investment Committee (Committee), which consists of members of management, to manage the investment of the Company's pension plan assets. The Committee has established and operates under an Investment Policy. The Committee determines the asset allocation and target ranges based upon periodic asset/liability studies and capital market projections. The Committee retains external investment managers to invest the assets and an adviser to monitor the performance of the investment managers. The Investment Policy prohibits certain investment transactions, such as commodity contracts, margin transactions, short selling and investments in Company securities, unless the Committee gives prior approval.

The weighted-average of the Company's pension plan asset allocations and target allocations at December 31, 2022 by asset category, were as follows:

	Target %	Actual
Asset Category		
Fixed income	40% - 50%	40 %
Large-cap equity	25% - 35%	30 %
Mid-cap equity	5% - 15%	15 %
Small-cap equity	5% - 15%	12 %
Global equity	0% - 5%	0 %
Other	0% - 5%	3 %
		100 %

The Company's pension plan investment strategy is based on an expectation that, over time, equity securities will provide higher returns than debt securities. The plans primarily minimize the risk of larger losses under this strategy through diversification of investments by asset class, by investing in different styles of investment management within the classes and using several investment managers.

The fair value of plan assets by major category and level within the fair value hierarchy was as follows (in millions):

	Quoted Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
December 31, 2022				
Common stocks				
U.S. companies [a]	$ 80.3	$ 0.1	$ —	$ 80.4
International companies [b]	—	5.5	—	5.5
Mutual funds [a]	82.9	—	—	82.9
Government and agency bonds [c]	—	15.4	—	15.4
Corporate bonds and notes [d]	—	5.7	—	5.7
Money market funds [e]	8.5	—	—	8.5
Other	—	—	0.5	0.5
	$ 171.7	$ 26.7	$ 0.5	198.9
Investments measured at net asset value (NAV) [f]				99.8
				$ 298.7

	Quoted Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
December 31, 2021				
Common stocks				
U.S. companies [a]	$ 102.8	$ 8.2	$ —	$ 111.0
International companies [b]	—	14.8	—	14.8
Mutual funds [a]	105.6	—	—	105.6
Government and agency bonds [c]	—	14.3	—	14.3
Corporate bonds and notes [d]	—	9.0	—	9.0
Money market funds [e]	22.8	—	—	22.8
Other	—	—	0.9	0.9
	$ 231.2	$ 46.3	$ 0.9	278.4
Investments measured at net asset value (NAV) [f]				254.6
				$ 533.0

	Quoted Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
September 30, 2021				
Common stocks				
U.S. companies [a]	$ 94.7	$ 7.6	$ —	$ 102.3
International companies [b]	—	13.9	—	13.9
Mutual funds [a]	100.4	—	—	100.4
Government and agency bonds [c]	—	12.7	—	12.7
Corporate bonds and notes [d]	—	8.9	—	8.9
Money market funds [e]	24.5	—	—	24.5
Other	—	—	0.9	0.9
	$ 219.6	$ 43.1	$ 0.9	263.6
Investments measured at net asset value (NAV) [f]				252.3
				$ 515.9

(a) Primarily valued using a market approach based on the quoted market prices of identical instruments that are actively traded on public exchanges.

(b) Valuation model looks at underlying security "best" price, exchange rate for underlying security's currency against the U.S. dollar and ratio of underlying security to American depository receipt.

(c) These investments consist of debt securities issued by the U.S. Treasury, U.S. government agencies and U.S. government-sponsored enterprises and have a variety of structures, coupon rates and maturities. These investments are considered to have low default risk as they are guaranteed by the U.S. government. Fixed income securities are primarily valued using a market approach with inputs that include broker quotes, benchmark yields, base spreads and reported trades.

(d) These investments consist of debt obligations issued by a variety of private and public corporations. These are investment grade securities which historically have provided a steady stream of income. Fixed income securities are primarily valued using a market approach with inputs that include broker quotes, benchmark yields, base spreads and reported trades.

(e) These investments largely consist of short-term investment funds and are valued using a market approach based on the quoted market prices of identical instruments.

(f) These investments consist of privately placed funds that are valued based on NAV. NAV of the funds is based on the fair value of each fund's underlying investments. In accordance with ASC Subtopic 820-10, certain investments that are measured at fair value using the NAV per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy.

The following table sets forth additional disclosures for the fair value measurement of the fair value of pension plans assets that are in common collective trusts that calculate fair value based on NAV per share practical expedient (in millions):

	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period [(1)]
December 31, 2022	$ 99.8	$ —	N/A	15 days
December 31, 2021	$ 254.6	$ —	N/A	15 days
September 30, 2021	$ 252.3	$ —	N/A	15 days

(1) Represents the maximum redemption period. A portion of the investment does not have any redemption period restrictions.

The Company’s estimated future benefit payments under Company sponsored plans were as follows (in millions):

	Pension Benefits		Postretirement Health and Other
Year Ending December 31,	Qualified	Non-Qualified	
2023	$ 12.0	$ 2.0	$ 2.2
2024	13.2	2.0	2.8
2025	14.5	2.0	3.3
2026	15.9	2.0	4.0
2027	17.1	2.0	4.6
2028-2031	100.1	10.4	21.9

Multi-Employer Pension Plans — The Company participates in the Boilermaker-Blacksmith National Pension Trust (Employer Identification Number 48-6168020), a multi-employer defined benefit pension plan related to collective bargaining employees at the Company’s Kewaunee facility. The Company’s contributions and pension benefits payable under the plan and the administration of the plan are determined by the terms of the related collective-bargaining agreement, which expires on May 1, 2027. The multi-employer plan poses different risks to the Company than single-employer plans in the following respects:

1. The Company’s contributions to the multi-employer plan may be used to provide benefits to all participating employees of the program, including employees of other employers.

2. In the event that another participating employer ceases contributions to the multi-employer plan, the Company may be responsible for any unfunded obligations along with the remaining participating employers.

3. If the Company chooses to withdraw from the multi-employer plan, the Company may be required to pay a withdrawal liability based on the underfunded status of the plan at that time.

As of November 2022, the plan-certified zone status as defined by the Pension Protection Act of 2006 was Yellow and accordingly the plan has implemented a financial improvement plan. The Company’s contributions to the multi-employer plan did not exceed 5% of the total plan contributions. The Company made contributions to the plan of $1.2 million in fiscal 2022, $0.3 million in the three months ended December 31, 2021, $1.4 million in the year ended September 30, 2021 and $1.5 million in the year ended September 30, 2020.

401(k) and Defined Contribution Pension Replacement Plans — The Company has defined contribution 401(k) plans for substantially all domestic employees. The plans allow employees to defer 2% to 100% of their income on a pre-tax basis. Each employee who elects to participate is eligible to receive Company matching contributions, which are based on employee contributions to the plans, subject to certain limitations. For pension replacement plans, the Company contributes between 2% and 6% of an employee’s base pay, depending on age. Amounts expensed for Company matching and discretionary contributions were $50.2 million in fiscal 2022, $11.8 million in the three months ended December 31, 2021, $45.5 million in the year ended September 30, 2021 and $39.5 million in the year ended September 30, 2020.

6. Income Taxes

Pre-tax income was taxed in the following jurisdictions (in millions):

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Domestic	$ 243.1	$ 16.8	$ 489.0	$ 425.8
Foreign	32.5	7.4	56.3	9.4
	$ 275.6	$ 24.2	$ 545.3	$ 435.2

Significant components of the provision for income taxes were as follows (in millions):

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Allocated to Income Before Losses of Unconsolidated Affiliates				
Current:				
Federal	$ 98.1	$ 168.3	$ (94.7)	$ 70.1
Foreign	42.0	1.0	8.5	8.2
State	10.9	11.4	22.8	12.1
Total current	151.0	180.7	(63.4)	90.4
Deferred:				
Federal	(53.3)	(166.4)	119.3	13.4
Foreign	(1.4)	(0.5)	(5.6)	9.7
State	1.2	(12.6)	(13.9)	(1.6)
Total deferred	(53.5)	(179.5)	99.8	21.5
	$ 97.5	$ 1.2	$ 36.4	$ 111.9
Allocated to Other Comprehensive Income (Loss)				
Deferred federal, state and foreign	$ (19.2)	$ (2.8)	$ (20.0)	$ 8.8

The reconciliation of income tax computed at the U.S. federal statutory tax rates to income tax expense was:

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Effective Rate Reconciliation				
U.S. federal tax rate	21.0 %	21.0 %	21.0 %	21.0 %
State income taxes, net	3.9 %	2.7 %	2.2 %	2.8 %
Foreign taxes	13.7 %	5.0 %	1.6 %	0.8 %
Tax audit settlements	0.1 %	— %	-0.9 %	— %
Valuation allowance	-0.1 %	3.0 %	-1.2 %	3.3 %
Domestic tax credits	-3.0 %	-15.8 %	-2.3 %	-3.2 %
Foreign-derived intangible income deduction	-0.9 %	-8.9 %	— %	-0.4 %
Global intangible low-taxed income, net	0.6 %	-1.6 %	0.2 %	— %
Share-based compensation	0.3 %	-5.2 %	— %	— %
CARES Act net operating loss carryback	-0.9 %	— %	-13.8 %	— %
Other, net	0.7 %	4.8 %	-0.1 %	1.4 %
	35.4 %	5.0 %	6.7 %	25.7 %

Foreign taxes in fiscal 2022 reflected a charge of $31.3 million as the Company revised its interpretation of certain foreign anti-hybrid tax legislation based upon comments from the corresponding taxing authorities, of which $3.5 million related to the three months ended December 31, 2021 and $14.6 million related to the year ended September 30, 2021.

Under U.S. Internal Revenue Service (IRS) procedures, a taxpayer can change automatic tax accounting methods without explicit prior IRS consent, but they are generally required to maintain the new tax accounting method for five years. In 2019, acknowledging that taxpayers may require multiple tax accounting method changes associated with the implementation of the Tax Cuts and Jobs Act of 2017 (Tax Reform Act), the IRS waived the five-year "eligibility rule" for certain tax accounting method changes for the first three years ending on or after November 20, 2018. Citing a need to help companies impacted by the COVID-19 pandemic, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) allows a taxpayer to carryback net operating losses generated in years beginning after December 31, 2017 and before January 1, 2021 for five years.

During the year ended September 30, 2021, the Company implemented a plan to make certain tax accounting method changes and change the timing of certain deductible payments. The plan generated a net operating loss of approximately $800 million for the year ended September 30, 2021. The Company was able to carryback the net operating loss to prior tax years with higher federal statutory rates. The Company's effective tax rate for the year ended September 30, 2021 reflected a discrete tax benefit of $75.3 million related to this plan. Certain tax positions taken to implement the plan are highly complex and subject to judgmental estimates. The Company recorded a liability for unrecognized tax benefits of $13.6 million reflecting the uncertainty of those tax positions, of which $3.7 million impacted the Company's provision for income taxes. The Company recorded interest income related to federal income tax refunds of $3.0 million in fiscal 2022 and $1.6 million in the year ended September 30, 2021. The Company did not recognize any interest income related to federal income tax refunds in the three months ended December 31, 2021.

The Company recorded net discrete tax charges of $18.9 million in fiscal 2022, which included the discrete tax charge of $18.1 million related to anti-hybrid taxes. During the three months ended December 31, 2021, the Company recorded a net discrete benefit of $1.9 million, primarily related to excess tax deductions from share-based compensation. During the year ended September 30, 2021, the Company recorded net discrete tax benefits of $96.0 million, which included the discrete tax benefit of $75.3 million as a result of the net operating losses (NOL) carrybacks and a discrete benefit of $11.7 million related to the release of a valuation allowance against certain foreign net deferred tax assets in Europe. During the year ended September 30, 2020, the Company recorded net discrete tax charges of $8.0 million, which included a valuation allowance against certain foreign net deferred tax assets in Europe of $11.4 million, offset in part by benefits related to excess tax deductions from share-based compensation.

Deferred income tax assets and liabilities were comprised of the following (in millions):

	December 31, 2022	December 31, 2021	September 30, 2021
Deferred tax assets:			
Other long-term liabilities	$ 41.3	$ 50.3	$ 57.3
Research & Development	84.5	—	—
Losses and credits	44.5	44.0	61.5
Accrued warranty	13.4	15.5	16.3
Other current liabilities	21.6	21.8	24.5
Customer advances	75.3	140.6	—
Payroll-related obligations	13.1	14.8	26.2
Other	15.8	9.3	8.9
Gross deferred tax assets	309.5	296.3	194.7
Less valuation allowance	(6.2)	(6.7)	(6.2)
Deferred tax assets, net	303.3	289.6	188.5
Deferred tax liabilities:			
Intangible assets	(55.6)	(52.8)	(51.6)
Property, plant and equipment	(30.9)	(94.1)	(143.9)
Inventories	(35.0)	(59.3)	(52.2)
Other	(47.0)	(11.7)	(40.6)
Deferred tax liabilities	(168.5)	(217.9)	(288.3)
Net deferred tax asset (liability)	$ 134.8	$ 71.7	$ (99.8)

The net deferred tax asset is classified in the Consolidated Balance Sheets as follows (in millions):

	December 31, 2022	December 31, 2021	September 30, 2021
Long-term net deferred tax asset	$ 134.8	$ 71.7	$ 8.3
Long-term net deferred tax liability	—	—	(108.1)
Net deferred tax asset (liability)	$ 134.8	$ 71.7	$ (99.8)

Pursuant to the U.S. Tax Cuts and Jobs Act enacted in December 2017, the Company is required to capitalize and amortize research and experimental expenditures beginning in fiscal 2022.

As of December 31, 2022, the Company had $30.9 million of net operating loss carryforwards available to reduce future taxable income of certain foreign subsidiaries in countries which allow such losses to be carried forward anywhere from five years to an unlimited period. In addition, the Company had $218.7 million of state net operating loss carryforwards, which can be carried forward anywhere from five years to an unlimited period and state credit carryforwards of $32.3 million, which are subject to expiration in 2027 to 2036. Deferred tax assets for foreign net operating loss carryforwards, state net operating loss carryforwards, state tax credit carryforwards and foreign tax credit carryforwards were $7.7 million, $8.2 million, $20.8 million and $7.8 million, respectively, as of December 31, 2022. Amounts are reviewed for recoverability based on historical taxable income, the expected reversals of existing temporary differences, tax-planning strategies and projections of future taxable income. The Company maintains a valuation allowance against domestic deferred tax assets of $3.2 million, state tax credit carryforwards of $0.2 million and foreign tax credit deferred tax assets of $2.8 million as of December 31, 2022.

At December 31, 2022, the Company had undistributed earnings of $429.1 million from its investment in non-U.S. subsidiaries. The Company has not recognized deferred tax liabilities for temporary differences related to the Company's foreign operations as the Company considers that its undistributed earnings are intended to be indefinitely reinvested. Should the Company's undistributed earnings from its investment in non-U.S. subsidiaries be distributed in the future in the form of dividends or otherwise, the Company may be subject to foreign and domestic income taxes and withholding taxes estimated at $25.5 million, including the impact of the regulations discussed below.

On August 21, 2020, the U.S. Treasury Department and the IRS released final regulations related to the Tax Reform Act (the “final tax regulations”) and the foreign dividends received deduction and global intangible low-taxed income. The final tax regulations contained language that modified certain provisions of the Tax Reform Act and previously issued guidance and are effective retroactively to the Company’s 2018 tax year and purport to cause certain intercompany transactions the Company engaged in during 2018 to produce U.S. taxable income upon a subsequent distribution from a controlled foreign corporation. The Company has analyzed the tax regulations and concluded that the U.S. Treasury Department exceeded regulatory authority and that the temporary tax regulations are contrary to the congressional intent of the underlying statute. The Company believes it has strong arguments in favor of its position and that it has met the more likely than not recognition threshold that its position will be sustained. The Company intends to vigorously defend its position, however, due to the uncertainty involved in challenging the validity of regulations as well as a potential litigation process, there can be no assurances that the temporary tax regulations will be invalidated, modified or that a court of law will rule in favor of the Company. An unfavorable resolution of this issue would result in $18.4 million of tax liability if the Company were to distribute the earnings to the United States, which is included in the $25.5 million disclosed withholding tax above.

A reconciliation of gross unrecognized tax benefits, excluding interest and penalties, was as follows (in millions):

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Balance at beginning of period	$ 41.5	$ 46.0	$ 79.8	$ 97.3
Additions for tax positions related to current year	50.2	0.5	15.8	46.2
Additions for tax positions related to prior years	20.9	—	0.6	1.4
Reductions for tax positions related to prior years	(10.0)	(5.0)	(46.0)	(61.8)
Settlements	—	—	—	(1.3)
Foreign currency translation	(1.9)	—	—	—
Lapse of statutes of limitations	(1.9)	—	(4.2)	(2.0)
Balance at end of period	$ 98.8	$ 41.5	$ 46.0	$ 79.8

As of December 31, 2022, net unrecognized tax benefits of $54.4 million would affect the Company’s effective tax rate if recognized. The Company recognizes accrued interest and penalties, if any, related to unrecognized tax benefits in the “Provision for income taxes” in the Consolidated Statements of Income. The Company recognized expense related to interest and penalties of $3.1 million in fiscal 2022, $0.1 million in the three months ended December 31, 2021, $0.7 million in the year ended September 30, 2021 and $1.3 million in the year ended September 30, 2020. The Company had accruals for the payment of interest and penalties of $4.7 million at December 31, 2022, $3.6 million at December 31, 2021 and $6.4 million September 30, 2021. During fiscal 2023, it is reasonably possible that federal, state and foreign tax audit resolutions could reduce unrecognized tax benefits by $4.6 million, either because the Company’s tax positions are sustained on audit, because the Company agrees to their disallowance or the statute of limitations closes.

The Company files federal income tax returns, as well as multiple state, local and non-U.S. jurisdiction tax returns. The Company is regularly audited by federal, state and foreign tax authorities. As of December 31, 2022, tax years open for examination under applicable statutes were as follows:

Tax Jurisdiction	Open Tax Years
Australia	2018 - 2022
Belgium	2019 - 2022
Brazil	2018 - 2022
Canada	2018 - 2022
China	2017 - 2022
Mexico	2018 - 2022
Netherlands	2017 - 2022
United Kingdom	2020 - 2022
Other Non-U.S. Countries	2016 - 2022
United States (federal general)	2016 - 2022
United States (state and local)	2007 - 2022

7. Earnings Per Share

The reconciliation of basic weighted-average shares outstanding to diluted weighted-average shares outstanding was as follows:

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Basic weighted-average common shares outstanding	65,699,693	67,351,145	68,482,363	68,149,324
Dilutive stock options and other equity-based compensation awards	435,125	585,332	726,388	638,405
Diluted weighted-average common shares outstanding	66,134,818	67,936,477	69,208,751	68,787,729

Options not included in the computation of diluted earnings per share attributable to common shareholders because they would have been anti-dilutive were as follows:

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Shares for stock-based compensation	152,698	—	121,274	581,634

8. Receivables

Receivables consisted of the following (in millions):

	December 31,		September 30,
	2022	2021	2021
Trade receivables - U.S. government	$ 135.3	$ 140.7	$ 133.5
Trade receivables - other	979.5	797.5	849.2
Finance receivables	7.3	8.0	6.4
Other receivables	53.3	40.0	39.3
	1,175.4	986.2	1,028.4
Less allowance for doubtful accounts	(6.7)	(4.2)	(3.6)
	$ 1,168.7	$ 982.0	$ 1,024.8

Classification of receivables in the Consolidated Balance Sheets consisted of the following (in millions):

	December 31,		September 30,
	2022	2021	2021
Current receivables	$ 1,162.0	$ 973.4	$ 1,017.3
Long-term receivables	6.7	8.6	7.5
	$ 1,168.7	$ 982.0	$ 1,024.8

Changes in the Company's allowance for doubtful accounts by type of receivable were as follows (in millions):

	Year Ended December 31, 2022		
	Finance Receivables	Trade and Other Receivables	Total
Allowance for doubtful accounts at beginning of period	$ 0.5	$ 3.7	$ 4.2
Provision for doubtful accounts, net of recoveries	(0.3)	3.3	3.0
Charge-off of accounts	(0.1)	(0.4)	(0.5)
Allowance for doubtful accounts at end of period	$ 0.1	$ 6.6	$ 6.7

	Three Months Ended December 31, 2021		
	Finance Receivables	Trade and Other Receivables	Total
Allowance for doubtful accounts at beginning of period	$ 0.6	$ 3.0	$ 3.6
Provision for doubtful accounts, net of recoveries	(0.1)	0.7	0.6
Charge-off of accounts	—	—	—
Allowance for doubtful accounts at end of period	$ 0.5	$ 3.7	$ 4.2

	Year Ended September 30, 2021		
	Finance Receivables	Trade and Other Receivables	Total
Allowance for doubtful accounts at beginning of period	$ 2.7	$ 6.9	$ 9.6
Provision for doubtful accounts, net of recoveries	(2.1)	(3.4)	(5.5)
Charge-off of accounts	—	(0.5)	(0.5)
Allowance for doubtful accounts at end of period	$ 0.6	$ 3.0	$ 3.6

9. Inventories

Inventories consisted of the following (in millions):

	December 31,		September 30,
	2022	2021	2021
Raw materials	$ 1,140.6	$ 982.0	$ 871.2
Partially finished products	383.1	329.8	276.2
Finished products	341.9	238.6	264.1
	$ 1,865.6	$ 1,550.4	$ 1,411.5

10. Property, Plant and Equipment

Property, plant and equipment consisted of the following (in millions):

	December 31,		September 30,
	2022	2021	2021
Land and land improvements	$ 74.9	$ 72.0	$ 71.4
Buildings	441.6	410.9	407.3
Machinery and equipment	841.9	740.9	729.5
Software and related costs	201.5	201.3	203.0
Equipment on operating lease to others	10.2	9.9	18.8
Construction in progress	234.3	45.3	37.1
	1,804.4	1,480.3	1,467.1
Less accumulated depreciation	(978.2)	(887.1)	(871.2)
	$ 826.2	$ 593.2	$ 595.9

Depreciation expense was $84.7 million in fiscal 2022, $21.7 million in the three months ended December 31, 2021, $87.5 million (including $3.6 million of accelerated depreciation related to restructuring actions) in the year ended September 30, 2021, and $89.1 million (including $6.9 million of accelerated depreciation related to restructuring actions) in the year ended September 30, 2020. Capitalized interest was insignificant for all reported periods.

Equipment on operating lease to others represents the cost of equipment shipped to customers for whom the Company has guaranteed the residual value and equipment on short-term leases. These transactions are accounted for as operating leases with the related assets capitalized and depreciated over their estimated economic lives of five to ten years. Cost less accumulated depreciation for equipment on operating lease to others was $9.3 million at December 31 2022, $8.9 million at December 31, 2021 and $15.4 million at September 30, 2021.

11. Goodwill and Purchased Intangible Assets

Goodwill and other indefinite-lived intangible assets are not amortized but are reviewed for impairment annually or more frequently if potential interim indicators exist that could result in impairment. The Company performs its annual impairment test at the beginning of the fourth quarter of each fiscal year. In September 2022, the Company identified a triggering event that indicated a potential impairment of goodwill within one of its reporting units in the Commercial segment. The Company's impairment test confirmed that the fair value of the reporting unit was below its carrying value. As a result, the Company recorded a $2.1 million goodwill impairment charge in the third quarter of fiscal 2022.

As of October 1, 2022, the Company performed its annual impairment review relative to goodwill and indefinite-lived intangible assets (principally non-amortizable trade names). To derive the fair value of its reporting units, the Company utilized both the income and market approaches. For the annual impairment testing, the Company used a weighted-average cost of capital, depending on the reporting unit, of 11.5% to 13.0% (8.5% to 13.0% at July 1, 2021) and a terminal growth rate of 3.0% (3.0% at July 1, 2021). Under the market approach, the Company derived the fair value of its reporting units based on revenue and earnings multiples of comparable publicly-traded companies. As a corroborative source of information, the Company reconciles its estimated fair value to within a reasonable range of its market capitalization, which includes an assumed control premium (an adjustment reflecting an estimated fair value on a control basis), to verify the reasonableness of the fair value of its reporting units obtained through the aforementioned methods. The control premium is estimated based upon control premiums observed in comparable market transactions. To derive the fair value of its trade names, the Company utilized the "relief from royalty" approach. Based on the Company's annual impairment review, the Company concluded that there was no impairment of goodwill and there was a $5.6 million trade name impairment within the Defense segment. Changes in estimates or the application of alternative assumptions could have produced significantly different results.

At December 31, 2022, approximately 86% of the Company's recorded goodwill and indefinite-lived purchased intangibles were concentrated within the JLG reporting unit in the Access Equipment segment. Assumptions utilized in the impairment analysis are highly judgmental. While the Company currently believes that an impairment of intangible assets at JLG is unlikely, events and conditions that could result in the impairment of intangibles at JLG include a sharp prolonged decline in economic conditions, significantly increased pricing pressure on JLG's margins or other factors leading to reductions in expected long-term sales or profitability at JLG.

The following table presents changes in goodwill (in millions):

	Access Equipment	Defense	Fire & Emergency	Commercial	Total
Net goodwill at September 30, 2020	$ 882.6	$ —	$ 106.1	$ 20.8	$ 1,009.5
Foreign currency translation	(2.0)	—	—	0.1	(1.9)
Acquisition	—	44.4	—	—	44.4
Net goodwill at September 30, 2021	880.6	44.4	106.1	20.9	1,052.0
Foreign currency translation	(3.0)	—	—	—	(3.0)
Net goodwill at December 31, 2021	877.6	44.4	106.1	20.9	1,049.0
Foreign currency translation	(11.8)	—	(0.3)	(0.2)	(12.3)
Acquisition	—	—	7.4	—	7.4
Impairment	—	—	—	(2.1)	(2.1)
Net goodwill at December 31, 2022	$ 865.8	$ 44.4	$ 113.2	$ 18.6	$ 1,042.0

The Company acquired Maxi-Metal on June 13, 2022. See Note 1 of the Consolidated Financial Statements for additional information.

The following tables present details of the Company's goodwill allocated to the reportable segments (in millions):

	December 31, 2022		
	Gross	Accumulated Impairment	Net
Access Equipment	$ 1,797.9	$ (932.1)	$ 865.8
Defense	44.4	—	44.4
Fire & Emergency	115.2	(2.0)	113.2
Commercial	188.3	(169.7)	18.6
	$ 2,145.8	$ (1,103.8)	$ 1,042.0

	December 31, 2021		
	Gross	Accumulated Impairment	Net
Access Equipment	$ 1,809.7	$ (932.1)	$ 877.6
Defense	44.4	—	44.4
Fire & Emergency	108.1	(2.0)	106.1
Commercial	188.5	(167.6)	20.9
	$ 2,150.7	$ (1,101.7)	$ 1,049.0

	September 30, 2021		
	Gross	Accumulated Impairment	Net
Access Equipment	$ 1,812.7	$ (932.1)	$ 880.6
Defense	44.4	—	44.4
Fire & Emergency	108.1	(2.0)	106.1
Commercial	188.5	(167.6)	20.9
	$ 2,153.7	$ (1,101.7)	$ 1,052.0

Details of the Company's total purchased intangible assets were as follows (in millions):

	December 31, 2022			
	Weighted-Average Life	Gross	Accumulated Amortization	Net
Amortizable intangible assets:				
Distribution network	39.2	$ 55.3	$ (37.0)	$ 18.3
Technology-related	12.0	108.3	(104.4)	3.9
Customer relationships	12.6	576.6	(557.3)	19.3
Other	10.9	50.2	(22.1)	28.1
	14.2	790.4	(720.8)	69.6
Non-amortizable trade names		387.4	—	387.4
		$ 1,177.8	$ (720.8)	$ 457.0

On March 1, 2022, the Company acquired two patents with a combined value of $3.7 million. The technology-related intangible asset is subject to amortization with an estimated life of 14.3 years.

	December 31, 2021			
	Weighted-Average Life	Gross	Accumulated Amortization	Net
Amortizable intangible assets:				
Distribution network	39.2	$ 55.4	$ (35.6)	$ 19.8
Technology-related	11.9	104.7	(104.0)	0.7
Customer relationships	12.6	572.6	(551.3)	21.3
Other	12.1	23.6	(18.5)	5.1
	14.4	756.3	(709.4)	46.9
Non-amortizable trade names		417.1	—	417.1
		$ 1,173.4	$ (709.4)	$ 464.0

	September 30, 2021			
	Weighted-Average Life	Gross	Accumulated Amortization	Net
Amortizable intangible assets:				
Distribution network	39.1	$ 55.4	$ (35.1)	$ 20.3
Technology-related	11.9	104.7	(103.9)	0.8
Customer relationships	12.6	572.6	(550.0)	22.6
Other	12.1	23.6	(17.6)	6.0
	14.4	756.3	(706.6)	49.7
Non-amortizable trade names		417.1	—	417.1
		$ 1,173.4	$ (706.6)	$ 466.8

When determining the value of customer relationships for purposes of allocating the purchase price of an acquisition, the Company looks at existing customer contracts of the acquired business to determine if they represent a reliable future source of income and hence, a valuable intangible asset for the Company. The Company determines the fair value of the customer relationships based on the estimated future benefits the Company expects from the acquired customer contracts. In performing its evaluation and estimation of the useful lives of customer relationships, the Company looks to the historical growth rate of revenue of the acquired company's existing customers as well as the historical attrition rates.

In connection with the valuation of intangible assets, a 40-year life was assigned to the value of the Pierce distribution network (net book value of $18.2 million at December 31, 2022). The Company believes Pierce maintains the largest North American fire apparatus distribution network. Pierce has exclusive contracts with each distributor related to the fire apparatus product offerings manufactured by Pierce. The useful life of the Pierce distribution network was based on a historical turnover analysis. Non-compete intangible asset lives are based on the terms of the applicable agreements.

The estimated future amortization expense of purchased intangible assets for the five years succeeding December 31, 2022 are as follows: 2023 - $8.9 million; 2024 - $7.7 million; 2025 - $7.6 million; 2026 - $7.6 million and 2027 - $7.6 million.

12. Leases

The Company leases certain real estate, information technology equipment, warehouse equipment, vehicles and other equipment almost exclusively through operating leases. The Company determines whether an arrangement contains a lease at inception. A lease liability and corresponding right of use ROU asset are recognized for qualifying leased assets based on the present value of fixed and certain index-based lease payments at lease commencement. Variable payments, which are generally determined based on the usage rate of the underlying asset, are excluded from the present value of lease payments and are recognized in the period in which the payment is made. To determine the present value of lease payments, the Company uses the stated interest rate in the lease, when available, or more commonly a secured incremental borrowing rate that reflects risk, term and economic environment in which the lease is denominated. The incremental borrowing rate is determined using a portfolio approach based on the current rate of interest that the Company would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term. The Company has elected not to separate payments for lease components from payments for non-lease components in contracts that contain both components. Lease agreements may include options to extend or terminate the lease. Those options that are reasonably certain of exercise at lease commencement have been included in the term of the lease used to recognize the right of use assets and lease liabilities. The lease terms of the Company's real estate and equipment leases extend up to 29 years and 18 years, respectively. The Company has elected not to recognize ROU assets or lease liabilities for leases with a term of twelve months or less. Expense is recognized on a straight-line basis over the lease term for operating leases.

The components of lease costs were as follows (in millions):

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Operating lease cost	$ 54.0	$ 13.9	$ 53.3	$ 57.4
Variable lease cost	31.9	7.1	34.0	46.1
Short-term lease cost	11.1	2.5	9.5	8.4

Supplemental information related to leases was as follows (in millions):

		December 31, 2022		
	Balance Sheet Classification	Finance leases	Operating leases	Total
Lease right of use assets	Other long-term assets	$ 28.0	$ 209.2	$ 237.2
Current lease liabilities	Other current liabilities	9.9	44.6	54.5
Long-term lease liabilities	Other long-term liabilities	18.7	174.7	193.4
Weighted average remaining lease term		4.0 years	7.9 years	
Weighted average discount rates		2.5 %	3.4 %	

		December 31, 2021		
	Balance Sheet Classification	**Finance leases**	**Operating leases**	**Total**
Lease right of use assets	Other long-term assets	$ 29.6	$ 204.5	$ 234.1
Current lease liabilities	Other current liabilities	9.0	42.1	51.1
Long-term lease liabilities	Other long-term liabilities	21.1	169.1	190.2
Weighted average remaining lease term		3.6 years	7.6 years	
Weighted average discount rates		1.8 %	2.8 %	

		September 30, 2021		
	Balance Sheet Classification	**Finance leases**	**Operating leases**	**Total**
Lease right of use assets	Other long-term assets	$ 22.2	$ 194.7	$ 216.9
Current lease liabilities	Other current liabilities	6.9	39.3	46.2
Long-term lease liabilities	Other long-term liabilities	15.6	160.8	176.4
Weighted average remaining lease term		3.5 years	8 years	
Weighted average discount rates		1.9 %	2.9 %	

The table below presents the right of use asset balance for operating leases disaggregated by segment and type of lease (in millions):

	December 31, 2022					
	Access Equipment	**Defense**	**Fire & Emergency**	**Commercial**	**Corporate and intersegment eliminations**	**Total**
Real estate leases	$ 77.2	$ 45.7	$ 10.0	$ 52.9	$ 9.6	$ 195.4
Equipment leases	3.6	1.1	1.1	1.5	6.5	13.8
	$ 80.8	$ 46.8	$ 11.1	$ 54.4	$ 16.1	$ 209.2

	December 31, 2021					
	Access Equipment	**Defense**	**Fire & Emergency**	**Commercial**	**Corporate and intersegment eliminations**	**Total**
Real estate leases	$ 92.4	$ 52.6	$ 12.2	$ 16.9	$ 11.6	$ 185.7
Equipment leases	4.5	1.8	1.5	2.2	8.8	18.8
	$ 96.9	$ 54.4	$ 13.7	$ 19.1	$ 20.4	$ 204.5

	September 30, 2021					
	Access Equipment	Defense	Fire & Emergency	Commercial	Corporate and intersegment eliminations	Total
Real estate leases	$ 84.3	$ 55.6	$ 6.2	$ 15.9	$ 12.2	$ 174.2
Equipment leases	5.5	2.0	1.7	2.5	8.8	20.5
	$ 89.8	$ 57.6	$ 7.9	$ 18.4	$ 21.0	$ 194.7

Maturities of operating lease liabilities at December 31, 2022 and minimum payments for operating leases having initial or remaining non-cancelable terms in excess of one year were as follows (in millions):

Amounts due in	
2023	$ 53.4
2024	32.3
2025	28.4
2026	22.8
2027	22.3
Thereafter	96.7
Total lease payments	255.9
Less: imputed interest	(36.6)
Present value of lease liability	$ 219.3

13. Investments in Unconsolidated Affiliates

Equity method investments — Investments in equity securities where the Company's ownership interest exceeds 20% and the Company does not have a controlling interest or where the ownership is less than 20% and for which the Company has a significant influence are accounted for by the equity method.

Investments in unconsolidated affiliates accounted for under the equity method consisted of the following (in millions):

		December 31,		September 30,
	Ownership %	2022	2021	2021
Mezcladores Trailers de Mexico, S.A. de C.V.	49 %	$ 8.3	$ 8.3	$ 8.3
BME Fire Trucks LLC	25 %	3.9	5.1	5.1
Construction Robotics, LLC	9 %	2.4	2.6	2.9
AutoTech Fund III, L.P.	9 %	0.8	—	—
AutoTech Fund II, L.P.	7 %	8.7	8.6	6.5
Carnegie Foundry LLC	6 %	4.8	4.9	5.0
Westly Capital Partners Fund IV, L.P.	5 %	2.8	1.4	1.1
Robotic Research LLC	2 %	11.2	—	—
		$ 42.9	$ 30.9	$ 28.9

Recorded investments generally represent the Company's maximum exposure to loss as a result of the Company's ownership interest. Earnings or losses are reflected in "Equity in earnings (losses) of unconsolidated affiliates" in the Consolidated Statements of Income. Due to the timing and availability of information, earnings or losses from unconsolidated affiliates accounted for using the equity method are recorded on a three-month lag.

The Company and an unaffiliated third party are joint venture partners in Mezcladores Trailers de Mexico, S.A. de C.V. (Mezcladoras). Mezcladoras is a manufacturer and distributor of industrial and commercial machinery with primary operations in Mexico. The Company recognized sales to Mezcladoras of $3.0 million in fiscal 2022, $0.4 million in the three months ended December 31, 2021, $3.4 million in the year ended September 30, 2021 and $3.3 million in the year ended September 30, 2020.

The Company recognizes income on sales to Mezcladoras at the time of shipment in proportion to the outside third-party interest in Mezcladoras and recognizes the remaining income upon the joint venture's sale of inventory to an unaffiliated customer. The Company earns a service fee for certain operational support services provided to Mezcladoras. The Company recognized service fees of $0.9 million in fiscal 2022, $0.3 million in the three months ended December 31, 2021, $0.8 million in the year ended September 30, 2021 and $1.1 million in the year ended September 30, 2020.

The Company holds an equity interest in BME Fire Trucks LLC (Boise Mobile). Boise Mobile is a manufacturer and distributor of custom fire apparatus specializing in challenging environments, such as wildfires. There were no material transactions between the Company and Boise Mobile in the year ended December 31, 2022, the three months ended December 31, 2021, or the year ended September 30, 2021.

Investments in equity securities — Investments in equity securities where the Company does not have a controlling interest or significant influence are recorded at fair value to the extent it is readily determinable. Investments in equity securities without a readily determinable fair value are recorded at cost and adjusted for any impairments and any observable price changes in orderly transactions for the identical or a similar investment of the same issuer should they occur. Gains or losses are reflected in "Miscellaneous, net" in the Consolidated Statements of Income.

Investments in unconsolidated affiliates not accounted for under the equity method with a readily determinable fair value consisted of the following (in millions):

	Cost Basis	Unrealized Gain (Loss)	Fair Value
December 31, 2022	$ 25.0	$ (21.2)	$ 3.8
December 31, 2021	$ 25.0	$ (10.8)	$ 14.2
September 30, 2021	$ 25.0	$ (4.4)	$ 20.6

Investments in unconsolidated affiliates not accounted for under the equity method without a readily determinable fair value consisted of the following (in millions):

	Cost Basis	Accumulated Impairment and Adjustments	Carrying Value
December 31, 2022	$ 4.2	$ (0.2)	$ 4.0
December 31, 2021	$ 1.7	$ —	$ 1.7
September 30, 2021	$ 1.7	$ —	$ 1.7

14. Other Long-Term Assets

Other long-term assets consisted of the following (in millions):

	December 31,		September 30,
	2022	2021	2021
Lease right of use asset (See Note 12 of Notes to Consolidated Financial Statements)	$ 237.2	$ 234.1	$ 216.9
Investments in affiliates (See Note 13 of Notes to Consolidated Financial Statements)	50.7	46.8	51.2
Deferred contract costs (See Note 3 of Notes to Consolidated Financial Statements)	415.8	73.2	50.6
Rabbi trust, less current portion	12.4	15.8	15.4
Customer finance receivables	3.5	3.4	2.4
Other	17.4	16.3	14.3
	737.0	389.6	350.8
Less allowance for doubtful receivables	(0.1)	(0.1)	(0.1)
	$ 736.9	$ 389.5	$ 350.7

The rabbi trust (the "Trust") holds investments to fund certain of the Company's obligations under its nonqualified SERP. Trust investments include money market and mutual funds. The Trust assets are subject to claims of the Company's creditors.

15. Credit Agreements

The Company was obligated under the following debt instruments (in millions):

	December 31, 2022		
	Principal	Debt Issuance Costs	Debt, Net
4.600% Senior notes due May 2028	$ 300.0	$ (2.1)	$ 297.9
3.100% Senior notes due March 2030	300.0	(2.9)	297.1
	$ 600.0	$ (5.0)	$ 595.0
Other short-term debt			$ 9.7

	December 31, 2021		
	Principal	Debt Issuance Costs	Debt, Net
Senior Term Loan	$ 225.0	$ (0.2)	$ 224.8
4.600% Senior notes due May 2028	300.0	(2.5)	297.5
3.100% Senior notes due March 2030	300.0	(3.3)	296.7
	$ 825.0	$ (6.0)	$ 819.0
Other short-term debt			$ —

	September 30, 2021		
	Principal	Debt Issuance Costs	Debt, Net
Senior Term Loan	$ 225.0	$ (0.2)	$ 224.8
4.600% Senior notes due May 2028	300.0	(2.6)	297.4
3.100% Senior notes due March 2030	300.0	(3.4)	296.6
	$ 825.0	$ (6.2)	$ 818.8
Other short-term debt			$ —

On March 23, 2022, the Company entered into a Third Amended and Restated Credit Agreement with various lenders (the "Credit Agreement"). The Credit Agreement provides for an unsecured revolving credit facility (the "Revolving Credit Facility") that matures in March 2027 with an initial maximum aggregate amount of availability of $1.1 billion. Debt issuance costs of $2.5 million were capitalized related to the Credit Agreement. In March 2022, the Company repaid a $225.0 million senior term loan that existed under the Second Amended and Restated Credit Agreement.

At December 31, 2022, outstanding letters of credit of $15.8 million reduced available capacity under the Revolving Credit Facility to $1.08 billion.

Under the Credit Agreement, the Company is obligated to pay (i) an unused commitment fee ranging from 0.080% to 0.225% per annum of the average daily unused portion of the aggregate revolving credit commitments under the Credit Agreement and (ii) a fee ranging from 0.4375% to 1.500% per annum of the maximum amount available to be drawn for each letter of credit issued and outstanding under the Credit Agreement.

Borrowings under the Credit Agreement bear interest for dollar-denominated loans at a variable rate equal to (i) Term SOFR (the forward-looking secured overnight financing rate) plus a specified margin, which may be adjusted upward or downward depending on whether certain criteria are satisfied, or (ii) the base rate (which is the highest of (x) Bank of America, N.A.'s prime rate, (y) the federal funds rate plus 0.50% or (z) the sum of 1.00% plus one-month Term SOFR) plus a specified margin, which may be adjusted upward or downward depending on whether certain criteria are satisfied. At December 31, 2022, the interest spread on the Revolving Credit Facility was 112.5 basis points.

The Credit Agreement contains various restrictions and covenants, including a requirement that the Company maintain a leverage ratio at certain levels, subject to certain exceptions, restrictions on the ability of the Company and certain of its subsidiaries to consolidate or merge, create liens, incur additional subsidiary indebtedness and consummate acquisitions and a restriction on the disposition of all or substantially all of the assets of the Company and its subsidiaries taken as a whole.

The Credit Agreement requires the Company to maintain a maximum leverage ratio (defined as, with certain adjustments, the ratio of the Company's consolidated indebtedness to the Company's consolidated net income for the previous four quarters before interest, taxes, depreciation, amortization, non-cash charges and certain other items (EBITDA)) as of the last day of any fiscal quarter of 3.75 to 1.00, subject to the Company's right to temporarily increase the maximum leverage ratio to 4.25 to 1.00 in connection with certain material acquisitions. The Company was in compliance with the financial covenant contained in the Credit Agreement as of December 31, 2022.

In March 2022, the Company entered into a 100.0 million Chinese renminbi uncommitted line of credit to provide short-term finance support to operations in China. There was 12.6 million Chinese renminbi ($1.8 million) outstanding on the uncommitted line of credit as of December 31, 2022. The line of credit carries a variable interest rate that is set by the lender, which was 3.6% at December 31, 2022.

In September 2019, the Company entered into a 220.0 million Chinese renminbi uncommitted line of credit to provide short-term finance support to operations in China. There was 54.0 million Chinese renminbi ($7.8 million) outstanding on the uncommitted line of credit as of December 31, 2022. The line of credit carries a variable interest rate that is set by the lender, which was 4.15% at December 31, 2022.

In May 2018, the Company issued $300.0 million of 4.600% unsecured senior notes due May 15, 2028 (the "2028 Senior Notes"). In February 2020, the Company issued $300.0 million of 3.100% unsecured senior notes due March 1, 2030 (the "2030 Senior Notes"). The 2028 Senior Notes and the 2030 Senior Notes were issued pursuant to an indenture (the "Indenture") between the Company and a trustee. The Indenture contains customary affirmative and negative covenants. The Company has the option to redeem the 2028 and 2030 Senior Notes at any time for a premium.

The fair value of the long-term debt is estimated based upon Level 2 inputs to reflect the market rate of the Company's debt. At December 31, 2022, the fair value of the 2028 Senior Notes and the 2030 Senior Notes was estimated to be $285 million ($338 million at December 31, 2021 and $344 million at September 30, 2021) and $254 million ($313 million at December 31, 2021 and $317 million at September 30, 2021), respectively. The fair value of the Term Loan approximated its book value at December 31, 2021 and September 30, 2021. See Note 22 of the Notes to Consolidated Financial Statements for the definition of a Level 2 input.

16. Warranties

The Company's products generally carry explicit warranties that extend from six months to five years, based on terms that are generally accepted in the marketplace. Selected components (such as engines, transmissions, tires, etc.) included in the Company's end products may include manufacturers' warranties. These manufacturers' warranties are generally passed on to the end customer of the Company's products, and the customer would generally deal directly with the component manufacturer. Warranty costs were $50.8 million in fiscal 2022, $11.3 million in the three months ended December 31, 2021, $66.3 million in the year ended September 30, 2021 and $57.9 million in the year ended September 30, 2020.

Provisions for estimated warranty and other related costs are recorded at the time of sale and are periodically adjusted to reflect actual experience. Certain warranty and other related claims involve matters of dispute that ultimately are resolved by negotiation, arbitration or litigation. At times, warranty issues arise that are beyond the scope of the Company's historical experience. It is reasonably possible that additional warranty and other related claims could arise from disputes or other matters in excess of amounts accrued; however, the Company does not expect that any such amounts, while not determinable, would have a material effect on the Company's consolidated financial condition, results of operations or cash flows.

Changes in the Company's assurance-type warranty liability were as follows (in millions):

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
Balance at beginning of period	$ 65.7	$ 69.0	$ 67.4	$ 65.1
Warranty provisions	49.3	10.8	50.1	43.1
Settlements made	(57.7)	(14.6)	(65.0)	(55.9)
Changes in liability for pre-existing warranties, net	1.5	0.5	16.2	14.8
Foreign currency translation	(0.2)	—	—	0.3
Acquisition	0.2	—	0.3	—
Balance at end of period	$ 58.8	$ 65.7	$ 69.0	$ 67.4

Additional warranty costs on the Joint Light Tactical Vehicle (JLTV) program within the Defense segment resulted in changes in the liability for pre-existing warranties of $16.9 million in the year ended September 30, 2021 and $12.3 million in the year ended September 30, 2020. The liabilities associated with service-type warranties are disclosed in Note 3 of the Notes to Consolidated Financial Statements.

17. Guarantee Arrangements

Customers of the Company, from time to time, may fund purchases of the Company's equipment through third-party finance companies. In certain instances, the Company may be requested to provide support for these arrangements through credit or residual value guarantees, by which the Company agrees to make payments to the finance companies in certain circumstances as further described below.

Credit Guarantees: The Company is party to multiple agreements whereby at December 31, 2022 the Company guaranteed an aggregate of $731.1 million in indebtedness of customers. The Company estimated that its maximum loss exposure under these contracts at December 31, 2022 was $121.6 million. Terms of these guarantees coincide with the financing arranged by the customer and generally do not exceed five years. Under the terms of these agreements and upon the occurrence of certain events, the Company generally has the ability to, among other things, take possession of the underlying collateral. If the financial condition of the customers were to deteriorate and result in their inability to make payments, then loss provisions in excess of amounts provided for at inception may be required. Given the Company's position as original equipment manufacturer and its knowledge of end markets, the Company, when called upon to fulfill a guarantee, generally has been able to liquidate the financed equipment at a minimal loss, if any, to the Company. While the Company does not expect to experience losses under these agreements that are materially in excess of the amounts reserved, it cannot provide any assurance that the financial condition of the third parties will not deteriorate resulting in the third parties' inability to meet their obligations. In the event that this occurs, the Company cannot guarantee that the collateral underlying the agreements will be sufficient to avoid losses materially in excess of the amounts reserved. Any losses under these guarantees would generally be mitigated by the value of any underlying collateral, including financed equipment. During periods of economic weakness, collateral values generally decline and can contribute to higher exposure to losses.

Residual Value Guarantees: The Company is party to multiple agreements whereby at December 31, 2022 the Company guaranteed to support an aggregate of $122.1 million of customer equipment value. The Company estimated that its maximum loss exposure under these contracts at December 31, 2022 was $12.8 million. Terms of these guarantees coincide with the financing arranged by the customer and generally do not exceed five years. Under the terms of these agreements, the Company guarantees that a piece of equipment will have a minimum residual value at a future date. If the counterparty is not able to recover the agreed upon residual value through sale, or alternative disposition, the Company is responsible for a portion of the shortfall. The Company is generally able to mitigate a portion of the risk associated with these guarantees by staggering the maturity terms of the guarantees, diversification of the portfolio and leveraging knowledge gained through the Company's own experience in the used equipment markets. There can be no assurance the Company's historical experience in used equipment markets will be indicative of future results. The Company's ability to recover losses experienced from its guarantees may be affected by economic conditions in used equipment markets at the time of loss. During periods of economic weakness, residual values generally decline and can contribute to higher exposure to losses.

Changes in the Company's stand ready obligation (non-contingent) to perform under guarantees were as follows (in millions):

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Balance at beginning of period	$ 12.1	$ 14.1	$ 15.5	$ 15.8
Adoption of ASC 326	—	—	(0.6)	—
Provision for new credit guarantees	3.0	0.4	2.4	4.9
Changes for pre-existing guarantees, net	(1.5)	0.3	(0.5)	(0.5)
Amortization of previous guarantees	(1.2)	(2.7)	(2.8)	(5.0)
Foreign currency translation	(0.2)	—	0.1	0.3
Balance at end of period	$ 12.2	$ 12.1	$ 14.1	$ 15.5

Upon the adoption of Financial Accounting Standards Board (FASB) ASC 326, *Financial Instruments – Credit Losses*, the contingent portion of the guarantee liabilities that relates to current expected credit losses is recognized separately and is recorded within "Other current liabilities" and "Other long-term liabilities" in the Company's Consolidated Balance Sheets.

Changes in the Company's off-balance sheet credit loss exposure (contingent) related to its guarantees were as follows (in millions):

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021
Balance at beginning of period	$ 4.0	$ 7.3	$ —
Adoption of ASC 326	—	—	7.1
Provision for new credit guarantees	1.6	0.1	2.1
Changes in allowance for pre-existing guarantees, net	1.0	(3.4)	(2.0)
Foreign currency translation	(0.3)	—	0.1
Balance at end of period	$ 6.3	$ 4.0	$ 7.3

18. Contingencies, Significant Estimates and Concentrations

Personal Injury Actions and Other — Product and general liability claims are made against the Company from time to time in the ordinary course of business. The Company is generally self-insured for future claims up to $5.0 million per claim. Accordingly, a reserve is maintained for the estimated costs of such claims. Estimated net liabilities for product and general liability claims totaled $41.2 million at December 31, 2022, $45.1 million at December 31, 2021 and $49.5 million at September 30, 2021. There is inherent uncertainty as to the eventual resolution of unsettled claims. Management, however, believes that any losses in excess of established reserves will not have a material effect on the Company's financial condition, results of operations or cash flows.

Market Risks — The Company was contingently liable under bid, performance and specialty bonds totaling $2.04 billion at December 31, 2022, $1.24 billion at December 31, 2021 and $1.13 billion at September 30, 2021. Open standby letters of credit issued by the Company's banks in favor of third parties totaled $18.8 million at December 31, 2022, $22.1 million at December 31, 2021 and $22.3 million at September 30, 2021.

Other Matters — The Company is subject to other environmental matters and legal proceedings and claims, including patent, antitrust, product liability, warranty and state dealership regulation compliance proceedings that arise in the ordinary course of business. Although the final results of all such matters and claims cannot be predicted with certainty, management believes that the ultimate resolution of all such matters and claims will not have a material effect on the Company's financial condition, results of operations or cash flows. Actual results could vary, among other things, due to the uncertainties involved in litigation.

At December 31, 2022, approximately 19% of the Company's workforce was covered under collective bargaining agreements.

The Company derived a significant portion of its revenue from the DoD, as follows (in millions):

	Year Ended December 31,	Three Months Ended December 31, (transition period)	Year Ended September 30,	
	2022	2021	2021	2020
DoD	$ 1,995.8	$ 521.2	$ 2,395.1	$ 2,300.4
Foreign military sales	76.2	0.5	139.2	71.2
Total DoD sales	$ 2,072.0	$ 521.7	$ 2,534.3	$ 2,371.6

No other customer represented more than 10% of sales.

Certain risks are inherent in doing business with the DoD, including technological changes and changes in levels of defense spending. All DoD contracts contain a provision that they may be terminated at any time at the convenience of the U.S. government. In such an event, the Company is entitled to recover allowable costs plus a reasonable profit earned to the date of termination. Major contracts for military systems are performed over extended periods of time and are subject to changes in scope of work and delivery schedules. Pricing negotiations on changes and settlement of claims often extend over prolonged periods of time. The Company's ultimate profitability on such contracts may depend on the eventual outcome of an equitable settlement of contractual issues with the Company's customers.

Because the Company is a relatively large defense contractor, the Company's U.S. government contract operations are subject to extensive annual audit processes and to U.S. government investigations of business practices and cost classifications from which legal or administrative proceedings can result. Based on U.S. government procurement regulations, under certain circumstances the Company could be fined, as well as suspended or debarred from U.S. government contracting. During a suspension or debarment, the Company would also be prohibited from selling equipment or services to customers that depend on loans or financial commitments from the Export-Import Bank, Overseas Private Investment Corporation and similar U.S. government agencies.

The Company recognized an $18.5 million gain during the year ended September 30, 2020 upon receipt of proceeds for a claim under its property and business interruption insurance. The claim was primarily for property damage and lost profits due to a weather-related roof collapse that occurred at one of the Commercial segment's facilities in February 2019. The gain was recognized as a reduction of cost of sales ($10.8 million), a reduction of selling, general and administrative expense ($1.5 million) and miscellaneous income ($6.2 million).

19. Shareholders' Equity

In May 2019, the Company's Board of Directors approved a Common Stock repurchase authorization for which there was remaining authority to repurchase 4,109,419 shares of Common Stock as of May 3, 2022. On May 3, 2022, the Board of Directors increased the Common Stock repurchase authorization by 7,890,581 shares to 12,000,000 shares as of that date. As of December 31, 2022, the Company had remaining authority to repurchase 11,550,677 shares of Common Stock.

Repurchases of Common Stock were as follows (in millions, except share amounts):

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Shares of Common Stock repurchased	1,508,467	1,362,831	927,934	550,853
Cost of shares of Common Stock repurchased	$ 155.0	$ 150.0	$ 107.8	$ 40.8

20. Accumulated Other Comprehensive Income (Loss)

Changes in accumulated other comprehensive income (loss) by component were as follows (in millions):

	Employee Pension and Postretirement Benefits, Net of Tax	Cumulative Translation Adjustments	Derivative Instruments, Net of Tax	Accumulated Other Comprehensive Income (Loss)
Balance at September 30, 2019	$ (69.4)	$ (132.5)	$ 0.3	$ (201.6)
Other comprehensive income (loss) before reclassifications	(29.3)	30.4	(0.5)	0.6
Amounts reclassified from accumulated other comprehensive income (loss)	2.8	—	(0.2)	2.6
Net current period other comprehensive income (loss)	(26.5)	30.4	(0.7)	3.2
Balance at September 30, 2020	(95.9)	(102.1)	(0.4)	(198.4)
Other comprehensive income (loss) before reclassifications	57.1	3.8	1.5	62.4
Amounts reclassified from accumulated other comprehensive income (loss)	4.6	—	0.4	5.0
Net current period other comprehensive income (loss)	61.7	3.8	1.9	67.4
Balance at September 30, 2021	(34.2)	(98.3)	1.5	(131.0)
Other comprehensive income (loss) before reclassifications	8.2	(6.9)	0.9	2.2
Amounts reclassified from accumulated other comprehensive income (loss)	0.4	—	(0.2)	0.2
Net current period other comprehensive income (loss)	8.6	(6.9)	0.7	2.4
Balance at December 31, 2021	(25.6)	(105.2)	2.2	(128.6)
Other comprehensive income (loss) before reclassifications	29.3	(31.0)	6.2	4.5
Amounts reclassified from accumulated other comprehensive income (loss)	27.4	4.6	(0.2)	31.8
Net current period other comprehensive income (loss)	56.7	(26.4)	6.0	36.3
Balance at December 31, 2022	$ 31.1	$ (131.6)	$ 8.2	$ (92.3)

Reclassifications out of accumulated other comprehensive income (loss) included in the computation of net periodic pension and postretirement benefit cost (See Note 5 of the Notes to Consolidated Financial Statements for additional details regarding employee benefit plans) were as follows (in millions):

	Classification of income (expense)	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Amortization of employee pension and postretirement benefits items					
Prior service costs	Miscellaneous, net	$ 0.8	$ 0.2	$ 0.9	$ 0.7
Settlement	Miscellaneous, net	33.6	—	—	—
Actuarial (gains) losses	Miscellaneous, net	1.3	0.3	5.2	3.1
Total before tax		35.7	0.5	6.1	3.8
Tax benefit		(8.3)	(0.1)	(1.5)	(1.0)
Net of tax		$ 27.4	$ 0.4	$ 4.6	$ 2.8

21. Derivative Financial Instruments and Hedging Activities

The Company uses forward foreign currency exchange contracts (derivatives) to reduce the exchange rate risk of specific foreign currency denominated transactions. These derivatives typically require the exchange of a foreign currency for U.S. dollars at a fixed rate at a future date. At times, the Company has designated these hedges as either cash flow hedges or fair value hedges under FASB ASC Topic 815, *Derivatives and Hedging*, as follows:

Fair Value Hedging Strategy: The Company enters into forward foreign exchange contracts to hedge firm commitments denominated in foreign currencies. The purpose of the Company's foreign currency hedging activities is to protect the Company from risk that the eventual U.S. dollar-equivalent cash flows from the sale of products to international customers will be adversely affected by changes in exchange rates.

Cash Flow Hedging Strategy: To protect against the impact of movements in foreign exchange rates on forecasted purchases or sales transactions denominated in foreign currency, the Company has a foreign currency cash flow hedging program. The Company hedges portions of its forecasted transactions denominated in foreign currency with forward contracts.

At December 31, 2022, the total notional U.S. dollar equivalent of outstanding forward foreign exchange contracts designated as hedges in accordance with ASC Topic 815 was $137.4 million. Net gains or losses related to these contracts are recorded within the same line item in the Consolidated Statements of Income impacted by the hedged item. The maximum length of time the Company is hedging its exposure to the variability in future cash flows is two years.

The Company enters into forward foreign currency exchange contracts to create economic hedges to manage foreign exchange risk exposure associated with non-functional currency denominated receivables and payables resulting from global sales and sourcing activities. The Company has not designated these derivative contracts as hedge transactions under FASB ASC Topic 815, and accordingly, the mark-to-market impact of these derivatives is recorded each period in current earnings within "Miscellaneous, net" in the Consolidated Statements of Income. The fair value of foreign currency related derivatives is included in the Consolidated Balance Sheets in "Other current assets" and "Other current liabilities." At December 31, 2022, the U.S. dollar equivalent of these outstanding forward foreign exchange contracts totaled $111.0 million in notional amounts covering a variety of foreign currency exposures.

The fair values of all open derivative instruments were as follows (in millions):

	December 31, 2022			
	Other Current Assets	Other Long Term Assets	Other Current Liabilities	Other Long Term Liabilities
Cash flow hedges:				
Foreign exchange contracts	$ 11.1	$ —	$ 0.3	$ —
Not designated as hedging instruments:				
Foreign exchange contracts	1.5	0.1	1.3	—
	$ 12.6	$ 0.1	$ 1.6	$ —

	December 31, 2021			
	Other Current Assets	Other Long Term Assets	Other Current Liabilities	Other Long Term Liabilities
Cash flow hedges:				
Foreign exchange contracts	$ 0.2	$ 2.7	$ —	$ —
Not designated as hedging instruments:				
Foreign exchange contracts	0.3	0.4	0.6	0.3
	$ 0.5	$ 3.1	$ 0.6	$ 0.3

	September 30, 2021			
	Other Current Assets	Other Long Term Assets	Other Current Liabilities	Other Long Term Liabilities
Cash flow hedges:				
Foreign exchange contracts	$ 0.5	$ 1.8	$ —	$ —
Not designated as hedging instruments:				
Foreign exchange contracts	0.2	0.1	1.5	0.2
	$ 0.7	$ 1.9	$ 1.5	$ 0.2

The pre-tax effects of derivative instruments consisted of the following (in millions):

	Classification of Gains (Losses)	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Cash flow hedges:					
Foreign exchange contracts	Cost of sales	$ 1.4	$ 0.3	$ (0.7)	$ 0.6
Not designated as hedging instruments:					
Foreign exchange contracts	Miscellaneous, net	0.9	(0.1)	0.2	1.7
		$ 2.3	$ 0.2	$ (0.5)	$ 2.3

22. Fair Value Measurement

FASB ASC Topic 820, *Fair Value Measurements and Disclosures*, defines fair value as the price that would be received to sell an asset or paid to transfer a liability (i.e., exit price) in an orderly transaction between market participants at the measurement date. FASB ASC Topic 820 requires disclosures that categorize assets and liabilities measured at fair value into one of three different levels depending on the assumptions (i.e., inputs) used in the valuation. Level 1 provides the most reliable measure of fair value, while Level 3 generally requires significant management judgment.

The three levels are defined as follows:

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

Level 2: Observable inputs other than quoted prices in active markets for identical assets or liabilities, such as quoted prices for similar assets or liabilities in active markets or quoted prices for identical assets or liabilities in inactive markets.

Level 3: Unobservable inputs reflecting management’s own assumptions about the inputs used in pricing the asset or liability.

The fair values of the Company’s financial assets and liabilities were as follows (in millions):

	Level 1	Level 2	Level 3	Total
December 31, 2022				
Assets:				
SERP plan assets [(a)]	$ 13.8	$ —	$ —	$ 13.8
Investment in equity securities [(b)]	3.8	—	—	3.8
Foreign currency exchange derivatives [(c)]	—	12.7	—	12.7
Liabilities:				
Foreign currency exchange derivatives [(c)]	$ —	$ 1.6	$ —	$ 1.6

	Level 1	Level 2	Level 3	Total
December 31, 2021				
Assets:				
SERP plan assets [(a)]	$ 21.3	$ —	$ —	$ 21.3
Investment in equity securities [(b)]	14.2	—	—	14.2
Foreign currency exchange derivatives [(c)]	—	3.6	—	3.6
Liabilities:				
Foreign currency exchange derivatives [(c)]	$ —	$ 0.9	$ —	$ 0.9

	Level 1	Level 2	Level 3	Total
September 30, 2021				
Assets:				
SERP plan assets [(a)]	$ 21.3	$ —	$ —	$ 21.3
Investment in equity securities [(b)]	20.6	—	—	20.6
Foreign currency exchange derivatives [(c)]	—	2.6	—	2.6
Liabilities:				
Foreign currency exchange derivatives [(c)]	$ —	$ 1.7	$ —	$ 1.7

(a) Represents investments held in a rabbi trust for the Company’s non-qualified supplemental executive retirement plan (SERP). The fair values of these investments are determined using a market approach. Investments include mutual funds for which quoted prices in active markets are available. The Company records changes in the fair value of investments in “Miscellaneous, net” in the Consolidated Statements of Income.

(b) Represents investments in equity securities for which quoted prices in active markets are available. The Company records changes in the fair value of investments in “Miscellaneous, net” in the Consolidated Statements of Income.

(c) Based on observable market transactions of forward currency prices.

See Notes 5, 13 and 15 of the Notes to Consolidated Financial Statements for fair value information related to pension assets, investments and debt.

Items Measured at Fair Value on a Nonrecurring Basis — In addition to items that are measured at fair value on a recurring basis, the Company also has assets and liabilities in its balance sheet that are measured at fair value on a nonrecurring basis. As these assets and liabilities are not measured at fair value on a recurring basis, they are not included in the tables above. Assets and liabilities that are measured at fair value on a nonrecurring basis include long-lived assets (See Note 1 of Notes to Consolidated Financial Statements fair value of assets acquired and liabilities assumed through acquisition, Note 10 of the Notes to Consolidated Financial Statements for impairments of long-lived assets, Note 11 of the Notes to Consolidated Financial Statements for impairment valuation analysis of intangible assets and Note 12 of the Notes to Consolidated Financial Statements for impairments of right of use assets). The Company has determined that the fair value measurements related to each of these assets rely primarily on Company-specific inputs and the Company's assumptions about the use of the assets, as observable inputs are not available. As such, the Company has determined that each of these fair value measurements reside within Level 3 of the fair value hierarchy.

23. Business Segment Information

The Company is organized into four reportable segments based on the internal organization used by the Chief Executive Officer for making operating decisions and measuring performance and based on the similarity of customers served, common management, common use of facilities and economic results attained. The Company's segments are as follows:

Access Equipment: This segment consists of JLG and JerrDan. JLG designs and manufactures aerial work platforms and telehandlers that are sold worldwide for use in a wide variety of construction, industrial, institutional and general maintenance applications to position workers and materials at elevated heights. Access Equipment customers include equipment rental companies, construction contractors, manufacturing companies and home improvement centers. JerrDan designs, manufactures and markets towing and recovery equipment in the U.S. and abroad.

Defense: This segment consists of Oshkosh Defense, Pratt Miller and snow removal vehicles for military and civilian airports. These business units design and manufacture tactical wheeled vehicles and supply parts and services for the U.S. military and for other militaries around the world, as well as offer engineering and product development services primarily to customers in the motorsports and multiple ground vehicle markets. Sales to the DoD accounted for 95% of the segment's sales in fiscal 2022, 93% of the segment's sales in the three months ended December 31, 2021, 95% of the segment's sales in the year ended September 30, 2021 and 96% of the segment's sales in the year ended September 30, 2020.

Fire & Emergency: This segment includes Pierce, Airport Products, Maxi-Metal and Kewaunee. These business units design, manufacture and market commercial and custom fire vehicles, simulators and emergency vehicles primarily for fire departments, airports and other governmental units, and broadcast vehicles for broadcasters and TV stations in the U.S. and abroad.

Commercial: This segment includes McNeilus, London, IMT and Oshkosh Commercial. McNeilus and London design, manufacture, market and distribute refuse collection vehicles and components. McNeilus, London and Oshkosh Commercial also design, manufacture, market and distribute concrete mixer vehicles and components. IMT is a designer and manufacturer of field service vehicles and truck-mounted cranes for niche markets. Sales are made primarily to commercial and municipal customers in the Americas.

In accordance with FASB ASC Topic 280, *Segment Reporting*, for purposes of business segment performance measurement, the Company does not allocate to individual business segments costs or items that are of a non-operating nature or organizational or functional expenses of a corporate nature. The caption "Corporate" includes corporate office expenses, share-based compensation, costs of certain business initiatives and shared services or operations benefiting multiple segments, and results of insignificant operations. Identifiable assets of the business segments exclude general corporate assets, which principally consist of cash and cash equivalents, certain property, plant and equipment, and certain other assets pertaining to corporate activities. Intersegment sales generally include amounts invoiced by a segment for work performed for another segment. Amounts are based on actual work performed and agreed-upon pricing, which is intended to be reflective of the contribution made by the supplying business segment. The accounting policies of the reportable segments are the same as those described in Note 2 of the Notes to Consolidated Financial Statements.

Selected financial information concerning the Company's reportable segments and product lines is as follows (in millions):

	Year Ended December 31, 2022			Three Months Ended December 31, 2021 (transition period)		
	External Customers	Inter-segment	Net Sales	External Customers	Inter-segment	Net Sales
Net sales:						
Access Equipment						
Aerial work platforms	$ 1,949.0	$ —	$ 1,949.0	$ 415.3	$ —	$ 415.3
Telehandlers	1,174.8	—	1,174.8	210.6	—	210.6
Other	848.1	0.2	848.3	207.4	0.2	207.6
Total Access Equipment	3,971.9	0.2	3,972.1	833.3	0.2	833.5
Defense	2,139.9	1.4	2,141.3	531.1	0.4	531.5
Fire & Emergency	1,108.2	3.4	1,111.6	217.0	1.6	218.6
Commercial						
Refuse collection	536.4	—	536.4	98.2	—	98.2
Concrete mixers	419.2	—	419.2	88.8	—	88.8
Other	106.2	2.3	108.5	23.2	0.4	23.6
Total Commercial	1,061.8	2.3	1,064.1	210.2	0.4	210.6
Corporate and intersegment eliminations	0.2	(7.3)	(7.1)	0.1	(2.6)	(2.5)
Consolidated	$ 8,282.0	$ —	$ 8,282.0	$ 1,791.7	$ —	$ 1,791.7

	Year Ended September 30,					
	2021			2020		
	External Customers	Inter-segment	Net Sales	External Customers	Inter-segment	Net Sales
Net sales:						
Access Equipment						
Aerial work platforms	$ 1,471.4	$ —	$ 1,471.4	$ 1,101.7	$ —	$ 1,101.7
Telehandlers	769.4	—	769.4	680.4	—	680.4
Other	826.5	4.8	831.3	723.6	9.4	733.0
Total Access Equipment	3,067.3	4.8	3,072.1	2,505.7	9.4	2,515.1
Defense	2,524.1	1.5	2,525.6	2,300.4	11.1	2,311.5
Fire & Emergency	1,211.6	15.0	1,226.6	1,098.0	9.0	1,107.0
Commercial						
Refuse collection	465.9	—	465.9	437.2	—	437.2
Concrete mixers	364.8	—	364.8	403.5	—	403.5
Other	102.9	4.0	106.9	110.6	6.5	117.1
Total Commercial	933.6	4.0	937.6	951.3	6.5	957.8
Corporate and intersegment eliminations	0.7	(25.3)	(24.6)	1.4	(36.0)	(34.6)
Consolidated	$ 7,737.3	$ —	$ 7,737.3	$ 6,856.8	$ —	$ 6,856.8

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Operating income (loss):				
Access Equipment [a]	$ 313.2	$ 38.2	$ 278.2	$ 198.2
Defense [b]	46.2	16.0	200.7	186.2
Fire & Emergency	94.9	15.9	178.9	147.1
Commercial [c]	59.5	2.4	81.7	79.0
Corporate	(141.5)	(30.9)	(147.4)	(125.7)
Consolidated	372.3	41.6	592.1	484.8
Interest expense, net of interest income [d]	(43.9)	(11.8)	(44.7)	(51.8)
Miscellaneous other (expense) income [e]	(52.8)	(5.6)	(2.1)	2.2
Income before income taxes and losses of unconsolidated affiliates	$ 275.6	$ 24.2	$ 545.3	$ 435.2

(a) Results for fiscal 2022 include expense of $4.6 million to eliminate cumulative translation adjustments upon liquidation of foreign entities and $2.2 million of restructuring costs. Results for the year ended September 30, 2021 include $3.1 million of restructuring costs and $7.4 million operating expenses related to restructuring plans. Results for the year ended September 30, 2020 include $10.4 million of restructuring costs and $4.7 million operating expenses related to restructuring plans.

(b) Results for fiscal 2022 include a $5.6 million intangible asset impairment charge.

(c) Results for fiscal 2022 include a $2.1 million intangible asset impairment charge. Results for the year ended September 30, 2020 include $1.5 million of restructuring costs, $4.1 million of accelerated depreciation related to restructuring actions, a gain of $12.3 million arising from a business interruption insurance recovery and a gain on the sale of a business of $3.1 million.

(d) Results for the year ended September 30, 2020 include $8.5 million in debt extinguishment costs and $3.3 million of interest income from an arbitration settlement in the Defense segment.

(e) Results for fiscal 2022 include a $33.6 million charge from the settlement of a frozen pension plan. Results for the year ended September 30, 2020 include a $6.2 million gain from insurance proceeds in excess of property loss in the Commercial segment.

	Year Ended December 31, 2022	Three Months Ended December 31, (transition period) 2021	Year Ended September 30, 2021	Year Ended September 30, 2020
Depreciation and amortization:				
Access Equipment [a]	$ 37.4	$ 9.1	$ 37.9	$ 42.1
Defense	29.9	7.9	27.8	20.1
Fire & Emergency	11.5	2.7	10.0	10.0
Commercial [b]	13.8	3.2	13.1	17.1
Corporate	15.0	4.1	15.2	14.9
Consolidated	$ 107.6	$ 27.0	$ 104.0	$ 104.2
Capital expenditures:				
Access Equipment [c]	$ 65.7	$ 17.2	$ 55.8	$ 56.5
Defense	168.2	12.1	23.8	32.4
Fire & Emergency	30.8	6.5	8.1	6.7
Commercial	11.4	6.4	21.3	18.9
Corporate	3.6	1.0	5.8	15.7
Consolidated	$ 279.7	$ 43.2	$ 114.8	$ 130.2

(a) Includes $3.6 million and $2.8 million of accelerated depreciation associated with restructuring actions in the years ended September 30, 2021 and 2020, respectively.

(b) Includes $4.1 million of accelerated depreciation associated with restructuring actions in the year ended September 30, 2020.

(c) Capital expenditures include both the purchase of property, plant and equipment and equipment held for rental.

	December 31, 2022	December 31, 2021	September 30, 2021
Identifiable assets:			
Access Equipment:			
U.S.	$ 2,493.0	$ 2,348.8	$ 2,234.0
Europe, Africa and Middle East	562.2	460.3	470.9
Rest of the world	428.4	383.0	371.4
Total Access Equipment	3,483.6	3,192.1	3,076.3
Defense:			
U.S.	2,060.0	1,259.0	1,189.0
Rest of the world	6.9	7.2	7.2
Total Defense	2,066.9	1,266.2	1,196.2
Fire & Emergency - U.S.			
U.S.	586.7	532.7	558.7
Rest of the World	25.5	—	—
Total Fire & Emergency	612.2	532.7	558.7
Commercial:			
U.S.	476.7	415.0	418.9
Rest of the world	39.1	45.1	54.8
Total Commercial	515.8	460.1	473.7
Corporate - U.S. [a]	1,050.5	1,398.6	1,730.8
Consolidated	$ 7,729.0	$ 6,849.7	$ 7,035.7

[a] Primarily includes cash and short-term investments and the Company's global headquarters.

The following tables present net sales by geographic region based on product shipment destination (in millions):

	Year Ended December 31, 2022					
	Access Equipment	Defense	Fire & Emergency	Commercial	Eliminations	Total
Net sales:						
North America	$ 3,298.9	$ 2,047.5	$ 1,075.6	$ 1,053.3	$ (7.1)	$ 7,468.2
Europe, Africa and Middle East	353.0	92.7	7.4	2.1	—	455.2
Rest of the World	320.2	1.1	28.6	8.7	—	358.6
Consolidated	$ 3,972.1	$ 2,141.3	$ 1,111.6	$ 1,064.1	$ (7.1)	$ 8,282.0

	Three Months Ended December 31, 2021 (transition period)					
	Access Equipment	Defense	Fire & Emergency	Commercial	Eliminations	Total
Net sales:						
North America	$ 671.6	$ 523.4	$ 211.9	$ 206.9	$ (2.5)	$ 1,611.3
Europe, Africa and Middle East	86.1	8.0	4.1	0.8	—	99.0
Rest of the World	75.8	0.1	2.6	2.9	—	81.4
Consolidated	$ 833.5	$ 531.5	$ 218.6	$ 210.6	$ (2.5)	$ 1,791.7

	Year Ended September 30, 2021					
	Access Equipment	Defense	Fire & Emergency	Commercial	Eliminations	Total
Net sales:						
North America	$ 2,358.9	$ 2,337.8	$ 1,147.4	$ 929.0	$ (24.6)	$ 6,748.5
Europe, Africa and Middle East	273.4	183.2	46.7	1.5	—	504.8
Rest of the World	439.8	4.6	32.5	7.1	—	484.0
Consolidated	$ 3,072.1	$ 2,525.6	$ 1,226.6	$ 937.6	$ (24.6)	$ 7,737.3

	Year Ended September 30, 2020					
	Access Equipment	Defense	Fire & Emergency	Commercial	Eliminations	Total
Net sales:						
North America	$ 1,881.6	$ 2,200.4	$ 1,029.3	$ 947.0	$ (34.6)	$ 6,023.7
Europe, Africa and Middle East	275.3	107.0	29.8	1.6	—	413.7
Rest of the World	358.2	4.1	47.9	9.2	—	419.4
Consolidated	$ 2,515.1	$ 2,311.5	$ 1,107.0	$ 957.8	$ (34.6)	$ 6,856.8

24. Unaudited Quarterly Results (in millions, except per share amounts)

Effective October 1, 2022, the Company selected to adopt the FIFO inventory valuation methodology for all inventories where it had previously valued certain inventories on the LIFO basis. Accordingly, amounts previously reported for all quarters for the year ended September 30, 2021, and the first, second and third quarters of fiscal 2022 have been recast from what was previously reported in the Company's Quarterly Reports on Form 10-Q.

	Year Ended December 31, 2022			
	4th Quarter [(a)]	3rd Quarter [(b)]	2nd Quarter	1st Quarter [(c)]
Net sales	$ 2,203.6	$ 2,066.7	$ 2,066.0	$ 1,945.7
Gross income	315.0	288.6	247.0	203.8
Operating income	147.0	117.2	76.3	31.8
Net income	75.1	66.9	32.1	(0.2)
Earnings per share:				
Basic	$ 1.15	$ 1.02	$ 0.49	$ —
Diluted	$ 1.14	$ 1.02	$ 0.49	$ —
Common stock dividends per share	$ 0.37	$ 0.37	$ 0.37	$ 0.37

(a) The fourth quarter of fiscal 2022 was impacted by a $5.6 million ($4.3 million after-tax) intangible asset impairment charge in the Defense segment and a $33.6 million ($25.7 million after-tax) pension settlement charge.

(b) The third quarter of fiscal 2022 was impacted by expense of $4.6 million to eliminate cumulative translation adjustments upon liquidation of foreign entities in the Access Equipment segment and a $2.1 million intangible asset impairment charge in the Commercial segment.

(c) The first quarter of fiscal 2022 was impacted by tax expense of $18.1 million for anti-hybrid tax on prior period income.

	Year Ended September 30, 2021			
	4th Quarter [(a)]	3rd Quarter [(b)]	2nd Quarter [(c)]	1st Quarter [(d)]
Net sales	$ 2,063.0	$ 2,208.8	$ 1,889.0	$ 1,576.5
Gross income	308.7	394.1	319.6	245.8
Operating income	134.4	213.3	145.3	99.1
Net income	112.9	221.0	103.0	72.0
Earnings per share:				
Basic	$ 1.65	$ 3.21	$ 1.50	$ 1.06
Diluted	$ 1.63	$ 3.18	$ 1.49	$ 1.05
Common stock dividends per share	$ 0.33	$ 0.33	$ 0.33	$ 0.33

(a) The fourth quarter of the year ended September 30, 2021 was impacted by a tax benefit of $11.7 million for the revaluation of deferred tax liabilities and a tax benefit of $5.4 million for net operating loss carrybacks.

(b) The third quarter of the year ended September 30, 2021 was impacted a tax benefit of $69.9 million for net operating loss carrybacks and $1.3 million ($1.4 million after-tax) of restructuring-related costs in the Access Equipment segment.

(c) The second quarter of the year ended September 30, 2021 was impacted by $2.2 million ($2.5 million after-tax) of restructuring-related costs in the Access Equipment segment.

(d) The first quarter of the year ended September 30, 2021 was impacted by $8.0 million ($7.8 million after-tax) of restructuring-related costs in the Access Equipment segment.

25. Subsequent Events

As a result of the change in operating structure, the Company combined its Fire & Emergency segment and Commercial segment into a new segment effective January 31, 2023. The new segment, the Vocational segment, will focus on designing, developing and manufacturing purpose-built vocational vehicles. By combining these segments, the Company expects to drive enhanced efficiencies while better leveraging its scale in technology development at an accelerated pace.

On January 31, 2023, the Company announced the planned sale of the rear discharge concrete mixer business of its Vocational segment. The estimated sale price is expected to be below the carrying value of the business, resulting in a loss between $10.0 million and $15.0 million that will be recognized by the Company when all held for sale criteria are met. The transaction is expected to close in the first quarter of fiscal 2023.

On January 31, 2023, the Company acquired Hinowa S.p.A. (Hinowa), which specializes in manufacturing equipment for working at heights and moving earth, such as aerial platforms, mini dumpers and tracked lift trucks, as well as undercarriages, for 186 million Euro. Hinowa will be part of the Access Equipment segment. The Company's preliminary evaluation of the fair value for certain significant assets and liabilities, including goodwill and intangibles, is not complete. The Company will provide a preliminary purchase price allocation with its fiscal 2023 first quarter Quarterly Report on Form 10-Q.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures. In accordance with Rule 13a-15(b) of the Exchange Act, the Company's management evaluated, with the participation of the Company's President and Chief Executive Officer and Executive Vice President and Chief Financial Officer, the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of December 31, 2022. Based upon their evaluation of these disclosure controls and procedures, the President and Chief Executive Officer and the Executive Vice President and Chief Financial Officer concluded that the disclosure controls and procedures were effective as of December 31, 2022 to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time period specified in the Securities and Exchange Commission rules and forms, and to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting. The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) of the Exchange Act. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of published financial statements in accordance with generally accepted accounting principles.

The Company's management, with the participation of the Company's President and Chief Executive Officer and Executive Vice President and Chief Financial Officer, has assessed the effectiveness of the Company's internal control over financial reporting based on the framework in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, the Company's management has concluded that, as of December 31, 2022, the Company's internal controls over financial reporting were effective based on that framework.

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

Deloitte & Touche LLP, the Company's independent registered public accounting firm, issued an attestation report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2022, which is included herein.

Attestation Report of Independent Registered Public Accounting Firm. The attestation report required under this Item 9A is contained in Item 8 of Part II of this Annual Report on Form 10-K under the heading "Report of Independent Registered Public Accounting Firm."

Changes in Internal Control over Financial Reporting. There were no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2022, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

The Company has no information to report pursuant to Item 9B.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information to be included under the captions “Proposal 1: Election of Directors,” “Governance of the Company — Audit Committee” and “Stock Ownership — Delinquent Section 16(a) Reports”, if applicable, in the Company’s definitive proxy statement for the 2023 annual meeting of shareholders, to be filed with the Securities and Exchange Commission, is hereby incorporated by reference in answer to this item. Reference is also made to the information under the heading “Information about our Executive Officers” included under Part I of this report.

The Company has adopted the Oshkosh Corporation Code of Ethics Applicable to Directors and Senior Executives, including, the Company’s President and Chief Executive Officer, the Company’s Executive Vice President and Chief Financial Officer, the Company’s Executive Vice President, General Counsel and Secretary, the Company’s Senior Vice President Finance and Controller and the Presidents, Vice Presidents of Finance and Controllers of the Company’s business units, or persons holding positions with similar responsibilities at business units, and other officers elected by the Company’s Board of Directors at the vice president level or higher. The Company has posted a copy of the Oshkosh Corporation Code of Ethics Applicable to Directors and Senior Executives on the Company’s website at www.oshkoshcorp.com, and any such Code of Ethics is available in print to any shareholder who requests it from the Company’s Secretary. The Company intends to satisfy the disclosure requirements under Item 10 of Form 10-K regarding amendments to, or waivers from, the Oshkosh Corporation Code of Ethics Applicable to Directors and Senior Executives by posting such information on its website at www.oshkoshcorp.com.

The Company is not including the information contained on its website as part of, or incorporating it by reference into, this report.

ITEM 11. EXECUTIVE COMPENSATION

The information to be included under the captions “Compensation Discussion and Analysis,” “Compensation Tables,” “Compensation Agreements” and “Director Compensation” contained in the Company’s definitive proxy statement for the 2023 annual meeting of shareholders, to be filed with the Securities and Exchange Commission, is hereby incorporated by reference in answer to this item.

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

The information to be included under the caption "Stock Ownership — Stock Ownership of Directors, Executive Officers and Other Large Shareholders" in the Company's definitive proxy statement for the 2023 annual meeting of shareholders, to be filed with the Securities and Exchange Commission, is hereby incorporated by reference in answer to this item.

Equity Compensation Plan Information

The following table provides information about the Company's equity compensation plans as of December 31, 2022.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options or Vesting of Share Awards[1]	Weighted-Average Exercise Price of Outstanding Options	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans
Equity compensation plans approved by security holders	956,284	$ 79.86	2,498,048
Equity compensation plans not approved by security holders	—	—	—
	956,284	$ 79.86	2,498,048

(1) Represents options to purchase shares of the Company's Common Stock granted under the 2009 Incentive Stock and Awards Plan, as amended and restated, and 2017 Incentive Stock and Award Plan, both of which were approved by the Company's shareholders.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information to be included under the caption "Governance of the Company — Board of Directors Independence," "Governance of the Company — Audit Committee," "Governance of the Company — Governance Committee," "Governance of the Company — Human Resources Committee" and "Governance of the Company — Policies and Procedures Regarding Related Person Transactions" in the Company's definitive proxy statement for the 2023 annual meeting of shareholders, to be filed with the Securities and Exchange Commission, is hereby incorporated by reference in answer to this item.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information to be included under the caption "Proposal 2: Ratification of the Appointment of Independent Auditor for Fiscal Year Ending December 31, 2023 — Audit and Non-Audit Fees" in the Company's definitive proxy statement for the 2023 annual meeting of shareholders, to be filed with the Securities and Exchange Commission, is hereby incorporated by reference in answer to this item.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) 1.Financial Statements: The following consolidated financial statements of the Company and the report of the Independent Registered Public Accounting Firm included in the Annual Report to Shareholders for the fiscal year ended December 31, 2022, are contained in Item 8:

Report of Deloitte & Touche LLP, Independent Registered Public Accounting Firm

Consolidated Statements of Income for the year ended December 31, 2022, the three months ended December 31, 2021, and the years ended September 30, 2021 and 2020

Consolidated Statements of Comprehensive Income for the year ended December 31, 2022, the three months ended December 31, 2021, and the years ended September 30, 2021 and 2020

Consolidated Balance Sheets at December 31, 2022, December 31, 2021 and September 30, 2021

Consolidated Statements of Shareholders' Equity for the year ended December 31, 2022, the three months ended December 31, 2021, and the years ended September 30, 2021 and 2020

Consolidated Statements of Cash Flows for the year ended December 31, 2022, the three months ended December 31, 2021, and the years ended September 30, 2021 and 2020

Notes to Consolidated Financial Statements

2. Financial Statement Schedules:

All schedules are omitted because they are not applicable, or the required information is included in the consolidated financial statements or notes thereto.

3. Exhibits:

The exhibits listed in the following Exhibit Index are filed as part of this Annual Report on Form 10-K. Each management contract or compensatory plan or arrangement required to be filed as an exhibit to this report is identified in the Exhibit Index by an asterisk following the Exhibit Number.

EXHIBIT INDEX

3.1	Articles of Incorporation of Oshkosh Corporation (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K dated June 30, 2014 (File No. 1-31371)).
3.2	By-Laws of Oshkosh Corporation, as amended effective October 6, 2021 (incorporated by reference to Exhibit 3.2 to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2021 (File No. 1-31371)).
4.1	Third Amended and Restated Credit Agreement, dated March 23, 2022, among Oshkosh Corporation, various subsidiaries of Oshkosh Corporation party thereto as borrowers and various lenders and agents party thereto (incorporated by reference to Exhibit 4.1 the Company's Current Report on Form 8-K dated March 24, 2022 (File No. 1-31371)).
4.2	Indenture, dated as of May 17, 2018, between Oshkosh Corporation and Computershare Trust Company, National Association, as trustee (as successor to Wells Fargo Bank, National Association) (incorporated by reference to the Exhibit 4.1 to the Company's Current Report on Form 8-K dated May 21, 2018 (File No. 1-31371)).
4.3	Supplemental Indenture, dated May 17, 2018, between Oshkosh Corporation and Computershare Trust Company, National Association, as trustee (as successor to Wells Fargo Bank, National Association) (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K, dated May 21, 2018 (File No. 1-31371)).

4.4	Second Supplemental Indenture, dated February 26, 2020, between Oshkosh Corporation and Computershare Trust Company, National Association, as trustee (as successor to Wells Fargo Bank, National Association) (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K dated February 26, 2020 (File No. 1-31371)).
4.5	Description of Registrants Securities (incorporated by reference to Exhibit 4.7 to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2019 (File No. 1-31371)).
10.1	Oshkosh Corporation Executive Retirement Plan, amended and restated effective December 31, 2008 (incorporated by reference to Exhibit 10.7 to the Company's Annual Report on Form 10-K for the year ended September 30, 2008 (File No. 1-31371)).*
10.2	Form of Key Executive Employment and Severance Agreement between Oshkosh Corporation and each of Timothy S. Bleck, Bryan K. Brandt, Ignacio A. Cortina, Thomas P. Hawkins, Jayanthi Iyengar, James W. Johnson, Bradley M. Nelson, Frank R. Nerenhausen, Anupam Khare, John C. Pfeifer, Michael E. Pack, Emma M. McTague and Jason P. Babb (each of the persons identified has signed this form or a substantially similar form) (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011 (File No. 1-31371)).*
10.3	Summary of Cash Compensation for Non-Employee Directors (incorporated by reference to Exhibit 10.3 to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2021 (File No. 1-31371)).*
10.4	Oshkosh Corporation Deferred Compensation Plan for Directors and Executive Officers (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2008 (File No. 1-31371)).*
10.5	Oshkosh Corporation 2009 Incentive Stock and Awards Plan as Amended and Restated, as amended January 18, 2012 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012 (File No. 1-31371)).*
10.6	Form of Oshkosh Corporation 2009 Incentive Stock and Awards Plan Stock Option Award Agreement (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, dated September 18, 2009 (File No. 1-31371)).*
10.7	Form of Oshkosh Corporation 2009 Incentive Stock and Awards Plan Stock Appreciation Rights Award Agreement for awards granted on or after September 19, 2011 (incorporated by reference to Exhibit 10.27 to the Company's Annual Report on Form 10-K for the year ended September 30, 2011 (File No. 1-31371)).*
10.8	Form of Oshkosh Corporation 2009 Incentive Stock and Awards Plan Non-Employee Director Stock Option Award (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 2009 (File No. 1-31371)).*
10.9	Oshkosh Corporation KEESA Rabbi Trust Agreement, dated as of January 31, 2013, between Oshkosh Corporation and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013 (File No. 1-31371)).*
10.10	Oshkosh Corporation Supplemental Retirement Plans Rabbi Trust Agreement, dated as of January 31, 2013, between Oshkosh Corporation and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013 (File No. 1-31371)).*
10.11	Oshkosh Corporation Defined Contribution Executive Retirement Plan, as amended and restated effective June 1, 2014 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 (File No. 1-31371)).*

10.12	Oshkosh Corporation 2017 Incentive Stock and Awards Plan (incorporated by reference to Attachment B to Oshkosh Corporation's definitive proxy statement on Schedule 14A for the Oshkosh Corporation Annual Meeting of Shareholders held on February 7, 2017 (File No. 1-31371)).*
10.13	Framework for Awards of Performance Share based on Total Shareholder Return under the Oshkosh Corporation 2017 Incentive Stock and Awards Plan (incorporated by reference to Exhibit 10.27 to the Company's Annual Report on Form 10-K for the year ended September 30, 2017 (File No. 1-31371)).*
10.14	Framework for Awards of Performance Shares based on Return on Invested Capital under the Oshkosh Corporation 2017 Incentive Stock Awards Plan (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 (File No. 1-31371)).*
10.15	Form of Oshkosh Corporation 2017 Incentive Stock and Awards Plan Stock Options Award Agreement (incorporated by reference to Exhibit 10.29 to the Company's Annual Report on Form 10-K for the year ended September 30, 2017 (File No. 1-31371)).*
10.16	Form of Oshkosh Corporation 2017 Incentive Stock and Awards Plan Stock Appreciation Rights Award Agreement (incorporated by reference to Exhibit 10.30 to the Company's Annual Report on Form 10-K for the year ended September 30, 2017 (File No. 1-31371)).*
10.17	Form of Oshkosh Corporation 2017 Incentive Stock and Awards Plan Restricted Stock Unit Award Agreements (Retirement Vesting) (incorporated by reference to Exhibit 10.31 to the Company's Annual Report on Form 10-K for the year ended September 30, 2017 (File No. 1-31371)).*
10.18	Form of Oshkosh Corporation 2017 Incentive Stock and Awards Plan Restricted Stock Unit Award Agreement (International) (incorporated by reference to Exhibit 10.32 to the Company's Annual Report on Form 10-K for the year ended September 30, 2017 (File No. 1-31371)).*
10.19	Form of Oshkosh Corporation 2017 Incentive Stock and Awards Plan Restricted Stock Unit Award Agreement (Stock Settled on Vesting - General) (incorporated by reference to Exhibit 10.33 to the Company's Annual Report on Form 10-K for the year ended September 30, 2017 (File No. 1-31371)).*
10.20	Framework for Awards of Performance Shares based on ESG/DEI under the Oshkosh Corporation 2017 Incentive Stock Awards Plan (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 (File No. 1-31371)).*
18	Preferability Letter of Deloitte & Touche LLP.
21	Subsidiaries of Registrant.
23	Consent of Deloitte & Touche LLP.
31.1	Certification by the President and Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act, dated February 21, 2023.
31.2	Certification by the Executive Vice President and Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act, dated February 21, 2023.
32.1	Written Statement of the President and Chief Executive Officer, pursuant to 18 U.S.C. ss. 1350, dated February 21, 2023.

32.2	Written Statement of the Executive Vice President and Chief Financial Officer, pursuant to 18 U.S.C. ss. 1350, dated February 21, 2023.
101.INS	The instance document does not appear in the interactive data file because its XBRL (Extensible Business Reporting Language) tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Taxonomy Extension Calculations Linkbase Document.
101.DEF	Inline XBRL Taxonomy Extension Definitions Linkbase Document.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	Inline XBRL Taxonomy Extension Presentations Linkbase Document.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

* Denotes a management contract or compensatory plan or arrangement.

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.

OSHKOSH CORPORATION

February 21, 2023	By	/s/ John C. Pfeifer
		John C. Pfeifer, President and Chief Executive Officer

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

February 21, 2023	By	/s/ John C. Pfeifer
		John C. Pfeifer, President, Chief Executive Officer and Director (Principal Executive Officer)
February 21, 2023	By	/s/ Michael E. Pack
		Michael E. Pack, Executive Vice President and Chief Financial Officer (Principal Financial Officer)
February 21, 2023	By	/s/ James C. Freeders
		James C. Freeders, Senior Vice President Finance and Controller (Principal Accounting Officer)
February 21, 2023	By	/s/ Keith J. Allman
		Keith J. Allman, Director
February 21, 2023	By	/s/ Douglas L. Davis
		Douglas L. Davis, Director
February 21, 2023	By	/s/ Tyrone M. Jordan
		Tyrone M. Jordan, Director
February 21, 2023	By	/s/ Kimberley Metcalf-Kupres
		Kimberley Metcalf-Kupres, Director
February 21, 2023	By	/s/ Stephen D. Newlin
		Stephen D. Newlin, Chairman of Board
February 21, 2023	By	/s/ Duncan J. Palmer
		Duncan J. Palmer, Director
February 21, 2023	By	/s/ David G. Perkins
		David G. Perkins, Director
February 21, 2023	By	/s/ Sandra E. Rowland
		Sandra E. Rowland, Director
February 21, 2023	By	/s/ John S. Shiely
		John S. Shiely, Director

Exhibit 18

February 21, 2023

To the Shareholders and Board of Directors of Oshkosh Corporation
1917 Four Wheel Drive
Oshkosh, WI 54902

Dear Sirs/Madams:

We have audited the consolidated financial statements of Oshkosh Corporation and its subsidiaries (the "Company") as of December 31, 2022, December 31, 2021, and September 30, 2021, and for the year ended December 31, 2022, the three months ended December 31, 2021, and fiscal years ended September 30, 2021 and 2020, included in your Annual Report on Form 10-K to the Securities and Exchange Commission and have issued our report thereon dated February 21, 2023, which expresses an unqualified opinion and includes an explanatory paragraph concerning the change in accounting principle for certain inventory from the last in, first-out ("LIFO") method to the first-in, first-out ("FIFO") method for inventories that were previously accounted for under the LIFO method. Note 2 to such consolidated financial statements contains a description of your adoption during the year ended December 31, 2022 of the change in accounting principle. In our judgment, such change is to an alternative accounting principle that is preferable under the circumstances.

Yours truly,

/s/ *DELOITTE & TOUCHE LLP*

Milwaukee, Wisconsin

Exhibit 21

Subsidiaries of the Company

Listed below are the Company’s wholly owned subsidiaries as of the date of this report. Names of certain inactive or minor subsidiaries have been omitted.

Name	State or Other Jurisdiction of Incorporation or Organization
JLG Industries India Private Limited	India
Kewaunee Fabrications, LLC	Wisconsin
Maxi-Metal Holdings Inc.	Canada
Maxi-Metal Inc.	Canada
McNeilus Companies, Inc.	Minnesota
Iowa Mold Tooling Co., Inc.	Delaware
JLG Industries, Inc.	Pennsylvania
JLG Equipment Services, Inc.	Pennsylvania
Access Financial Solutions, LLC.	Maryland
JerrDan, LLC	Delaware
JLG New Zealand Access Equipment and Services	New Zealand
JLG Industries Korea, Limited	South Korea
JLG Pacific Holdings, Inc.	Pennsylvania
JLG Industries, Japan Co., Limited	Japan
JLG ANZ Pty Limited	Australia
JLG Australia Pty Limited	Australia
JLG Properties Australia Pty Limited	Australia
OSK Company LLC	Wisconsin
JLG EMEA Holdings B.V.	Netherlands
JLG EMEA B.V.	Netherlands
JLG France SAS	France
JLG Ground Support Europe BVBA	Belgium
JLG Industries GmbH	Germany
JLG Deutschland GmbH	Germany
JLG Industries (Italia) S.R.L	Italy
JLG Industries (United Kingdom) Limited	United Kingdom
JLG Manufacturing Europe BVBA	Belgium
JLG Sverige AB	Sweden
Oshkosh Italy B.V.	Netherlands
Platformas Elevadoras JLG Iberica S.L.	Spain
Power Towers Limited	United Kingdom
Power Towers LLC	United Arab Emirates
Oshkosh Europe B.V.	Netherlands
Oshkosh Equipment Manufacturing, S. de R.L. de C.V.	Mexico
Oshkosh-JLG (Singapore) Technology Equipment Private Limited	Singapore
JLG Equipment Services Limited	Hong Kong
Oshkosh JLG (Tianjin) Equipment Technology Co., Ltd.	China
Oshkosh-JLG (Shanghai) Enterprise Development CO., Ltd.	China
JLG Latino Americana Ltda.	Brazil
JLG Maquinaria Mexico, S. de R.L. de C.V.	Mexico
London Machinery Inc.	Canada
London (Mtl) Inc.	Canada
McNeilus Truck and Manufacturing, Inc.	Minnesota
McNeilus Financial, Inc.	Texas
Viking Truck & Equipment Sales (OH), Inc.	Ohio

Name	State or Other Jurisdiction of Incorporation or Organization
Oshkosh Arabia FZE	Dubai
Oshkosh Asia Holdings Limited	Mauritius
Oshkosh Commercial (Beijing) Co., Limited	China
Oshkosh Commercial Products, LLC	Wisconsin
Oshkosh Defense, LLC	Wisconsin
McNeilus Canada Incorporated	Canada
Pratt & Miller Engineering & Fabrication, LLC	Michigan
Oshkosh Defense Europe B.V.	Netherlands
Oshkosh HD, LLC	Wisconsin
Oshkosh Logistics Corporation	Wisconsin
Oshkosh Manufacturing, LLC	Wisconsin
OSK Ventures, LLC	Wisconsin
Pierce Manufacturing Inc.	Wisconsin

McNeilus Truck and Manufacturing, Inc. owns a 49% interest in Mezcladoras Trailers de Mexico, S.A. de C.V.

Pierce Manufacturing, Inc. owns a 25% interest in BME Fire Trucks LLC (Boise Mobile).

Exhibit 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-181578, 333-114939, 333-217858, and 333-101596 on Form S-8 and Registration Statement No. 333-261115 on Form S-3 of our reports dated February 21, 2023, relating to the consolidated financial statements of Oshkosh Corporation and subsidiaries (the “Company”), and the effectiveness of the Company’s internal control over financial reporting, appearing in this Annual Report on Form 10-K for the year ended December 31, 2022.

/s/ Deloitte & Touche LLP

Milwaukee, Wisconsin
February 21, 2023

Exhibit 31.1

CERTIFICATIONS

I, John C. Pfeifer, certify that:

1. I have reviewed this Annual Report on Form 10-K of Oshkosh Corporation;

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

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

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

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

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

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

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

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

   (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.

February 21, 2023

/s/ John C. Pfeifer

John C. Pfeifer, President and Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Michael E. Pack, certify that:

1. I have reviewed this Annual Report on Form 10-K of Oshkosh Corporation;

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

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

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

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

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

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

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

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

   (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.

February 21, 2023

/s/ Michael E. Pack

Michael E. Pack, Executive Vice President and Chief Financial Officer

Exhibit 32.1

Written Statement of the President and Chief Executive Officer
Pursuant to 18 U.S.C. §1350

Solely for the purposes of complying with 18 U.S.C. §1350, I, the undersigned President and Chief Executive Officer of Oshkosh Corporation (the "Company"), hereby certify, to the best of my knowledge, that the Annual Report on Form 10-K of the Company for the year ended December 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ John C. Pfeifer

John C. Pfeifer
February 21, 2023

Exhibit 32.2

Written Statement of the Executive Vice President and Chief Financial Officer
Pursuant to 18 U.S.C. §1350

Solely for the purposes of complying with 18 U.S.C. §1350, I, the undersigned Executive Vice President and Chief Financial Officer of Oshkosh Corporation (the “Company”), hereby certify, to the best of my knowledge, that the Annual Report on Form 10-K of the Company for the year ended December 31, 2022 (the “Report”) fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Michael E. Pack

Michael E. Pack

February 21, 2023