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

FORM 10-K

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	ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF	THE SECURITIES EXCHAN	GE ACT OF 19	934						
	ŀ	or the fiscal year ended S	September 30	, 2019						
		or								
	TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXC	HANGE ACT O	F 1934						
		Commission file num	nber: 1-31371	l						
		Oshkosh Cor	poration	1						
	(Ex	act name of registrant as s	•							
	Wisconsin				3	9-0520270				
	(State or other jurisdiction		(I.R.S. Employer							
	of incorporation or organization)				Iden	tification N	5.)			
	P.O. Box 2566									
	Oshkosh, Wisconsin					4903-2566				
	(Address of principal executive offices)				(Zip Code)				
	Registrant's	telephone number, includ	ding area cod	e: (920) 502-3	009					
	Securi	ties registered pursuant to	Section 12(b	o) of the Act:						
		Trading								
	Title of each class	Symbol(s)		Name of	each exc	hange on w	hich regist	tered		
	Common Stock (\$.01 par value)	OSK			New Yor	k Stock Exc	hange			
Indica Act. Yes		registered pursuant to Se a well-known se		f the Act: Non suer, as	e defined	in Ru ⊠ □ No	le 405	of	the	Securities
Indica Act. Yes	ate by check mark if the registrant is i	not required to file	e reports	pursuant	to Sec	tion 13	or Sec	ction	15(d)	of the
	ate by check mark whether the registrant (1) has filed all rep chs (or for such shorter period that the registrant was									
Yes						□No				
	ate by check mark whether the registrant has submitted e 105 of this chapter) during the preceding 12									
	ate by check mark whether the registrant is a large acceler pany. See the definitions of "large accelerated filer," "acceler									
Large	e accelerated filer					Accele	ated filer			
Non-	accelerated filer					Smalle	reporting	compa	iny	
						Emergi	ng growth	compa	ny	
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Yes						⊠ No				
At M	arch 31, 2019, the aggregate market value of the registrant' lew York Stock Exchange as of such date).	s Common Stock held by r	non-affiliates	was \$5,251,51	.3,147 (ba	sed on the	closing pri	ce of \$	75.13 pe	er share on
	November 12, 2019, 68,057,114 shares of the registrant's C	ommon Stock were outsta	inding.							

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the Proxy Statement for the 2020 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).

OSHKOSH CORPORATION FISCAL 2019 ANNUAL REPORT ON FORM 10-K

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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 and its wholly-owned subsidiary (Oshkosh Defense), Pierce Manufacturing Inc. (Pierce), 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), Concrete Equipment Company, Inc. and its wholly-owned subsidiary (CON-E-CO), 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™," "CON-E-CO", "London", "IMT"," "Command Zone™," "TAK-4°," "PUC™," "Hercules™," "Husky™," "Ascendant™," "SkyTrak"," "TerraMax™," "ProPulse" and "Power Towers™" 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 specialty vehicles 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 specialty vehicles and vehicle bodies 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 captions "Executive Overview" and "Fiscal 2020 Outlook" 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 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 customer historical 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 expected level and timing of U.S. Department of Defense (DoD) and international defense customer procurement of products and services and acceptance of and funding or payments for such products and services: the Company's ability to predict the level and timing of orders for indefinite delivery/indefinite quantity contracts with the U.S. federal government; risks related to reductions in government expenditures in light of U.S. defense budget pressures, sequestration and an uncertain DoD tactical wheeled vehicle strategy; the impact of any DoD solicitation for competition for future contracts to produce military vehicles; risks related to facilities expansion, consolidation and alignment, including the amounts of related costs and charges and that anticipated cost savings may not be achieved; projected adoption rates of work at height machinery in emerging markets; the impact of severe weather or natural disasters that may affect the Company, its suppliers or its customers; performance issues with key suppliers or subcontractors; 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 an escalating 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; 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 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 captions "Executive Overview" and "Fiscal 2020 Outlook" in "Management's Discussion and Analysis of Financial Condition and Results of Operations," speak only as of November 19, 2019. 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

The Company

Oshkosh Corporation is a leading designer, manufacturer and marketer of access equipment, specialty vehicles and truck bodies for the primary markets of access equipment, defense, fire & emergency and municipal, refuse hauling, concrete placement as well as airport services. Oshkosh engineers vehicles and equipment that move industries forward. Each of our products and technologies is designed with customers and users in mind, from the four-wheel drive system that we patented in 1917 to advances in mobility systems, electrification, active safety, autonomous vehicles and telematics.

The Company comprises 11 brands and maintains four reportable segments for financial reporting purposes: access equipment, defense, fire & emergency and commercial, which comprised 49%, 24%, 15% and 12%, respectively, of the Company's consolidated net sales in fiscal 2019. Oshkosh's leading brands include a wide range of products to serve a diverse group of industries. This allows the Company to leverage innovations and efficiencies across the enterprise, including supply chain, materials integration, manufacturing processes, facilities and cross portfolio innovation creating a company that is a truly different integrated global industrial.

The Company made approximately 24%, 22% and 20% of its net sales for fiscal 2019, 2018 and 2017, 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 22 of the Notes to Consolidated Financial Statements for financial information related to the Company's business segments.

JLG, a global designer and manufacturer of 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, forms the foundation of the Company's access equipment segment. JLG's customer base includes equipment rental companies, construction contractors, manufacturing companies and home improvement centers. The access equipment segment also includes Jerr-Dan-branded tow trucks (wreckers) and roll-back vehicle carriers (carriers) sold to towing companies.

The Company's defense segment has designed, manufactured and sold military tactical wheeled vehicles to the DoD for more than 90 years. In 1981, Oshkosh Defense was awarded the first Heavy Expanded Mobility Tactical Truck (HEMTT) contract for the DoD, and thereafter, it developed into the DoD's leading supplier of severe-duty, heavy-payload tactical trucks. Since that time, Oshkosh Defense has broadened its product offerings to become the leading manufacturer of severe-duty, heavy- and medium-payload tactical trucks for the DoD, manufacturing vehicles that perform a variety of demanding tasks such as hauling tanks, missile systems, ammunition, fuel, troops and cargo for combat units. Most recently, Oshkosh Defense solidified its position in the light-payload tactical wheeled vehicle category by capturing the DoD's Joint Light Tactical Vehicle (JLTV) program. The Company is currently in full rate production phase of this eight-year, \$6.7 billion contract awarded in 2015 for approximately 17,000 of these technologically enhanced vehicles and sustaining services.

The Company's fire & emergency segment designs and manufactures custom and commercial firefighting vehicles and equipment, aircraft rescue and firefighting (ARFF) vehicles, snow removal vehicles, simulators and other emergency vehicles primarily sold to fire departments, airports and other governmental units and broadcast vehicles sold to broadcasters and television stations.

The Company's commercial segment designs and manufactures rear- and front-discharge concrete mixers, refuse collection vehicles, portable and stationary concrete batch plants and vehicle components sold to ready-mix companies and commercial and municipal waste haulers and field service vehicles and truck-mounted cranes sold to mining, construction and other companies.

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 performance, reliability, customer service and low total product life cycle costs. The Company maintains leading market shares in all its businesses and is the sole-source supplier of a number of vehicles to the DoD.

Diversified Product Offerings. The Company believes its broad product offerings and target markets serve to diversify its sources of revenues, mitigate the impact of economic cycles and provide multiple platforms for potential organic growth and acquisitions. The Company's product offerings provide extensive opportunities to bundle products for sale to customers, co-location of manufacturing, leveraging purchasing power and sharing 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 specialty vehicles, vehicle bodies, parts and service and related products to its customers. In addition, the Company has established an extensive domestic and international distribution network for specialty vehicles and vehicle bodies 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 specialty vehicle and vehicle body markets it serves. The Company frequently achieves premium pricing due to the durability and low life cycle costs for its products. The Company also provides high quality customer service through its extensive parts and service support programs, which are generally available to customers 365 days a year in all product lines throughout the Company's distribution network.

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.

Flexible and Efficient Manufacturing. The Company believes it has competitive advantages over larger vehicle manufacturers in its specialty vehicle markets due to its product quality, manufacturing flexibility, vertical integration, purchasing power in specialty vehicle components and tailored distribution networks. In addition, the Company believes it has competitive advantages over smaller vehicle and vehicle body manufacturers due to its relatively higher volumes of similar products that permit the use of moving assembly lines and allow it to leverage purchasing power and technology opportunities across product lines.

Strong Management Team. The Company is led by President and Chief Executive Officer Wilson R. Jones who has been employed by the Company since 2005. Mr. Jones is complemented by an experienced senior management team that has been assembled through internal promotions and external hires. The management team has successfully executed a strategic reshaping and expansion of the Company's business, which has positioned the Company to be a global leader in the specialty vehicle and vehicle body markets and transformed the Company into a different integrated global industrial.

Business Strategy

The Company is focused on increasing its net sales, profitability and cash flow and maintaining a strong balance sheet by capitalizing on its competitive strengths and pursuing an integrated business strategy. The Company completed a comprehensive strategic planning process in fiscal 2011 with the assistance of a globally-recognized consulting firm that culminated in the creation of the Company's roadmap, named MOVE, to deliver outstanding long-term shareholder value. The Company has subsequently updated and refreshed the MOVE strategy, which it expects to continue executing in fiscal 2020 and beyond.

The MOVE strategy consists of the following four key initiatives:

Market Leader Delighting Customers. This initiative focuses on growing profitability by maintaining intense focus on customer experience. By tapping into the voice of the customer, the Company aims to deliver superior products and services under this initiative. The Company drives consistent customer experience through the use of standard processes and tools throughout the organization. The Company believes its focus on People First Initiatives results in more engaged and energized team members focused on delivery experiences that exceed customer expectations. Customers derive value by working with a partner that provides total customer care throughout the product life cycle. The Company's goal is to delight its customers.

Optimize Cost and Capital Structure. This initiative focuses on optimizing the Company's cost and capital structure to provide value for customers and shareholders by aggressively attacking its product, process and overhead costs and opportunistically using its expected free cash flow to return capital to shareholders or invest in acquisition opportunities. The Company utilizes a comprehensive lean enterprise focus to drive to be a low-cost producer in all of its product lines while sustaining premium product features and quality and to deliver low product life cycle costs for its customers. Lean is a methodology used to eliminate non-value-added work from a process stream. The Company also embraces organizational simplification by focusing on what drives value to customers and objectively allocating time and resources in these areas. As a result of its focus on cost optimization, the Company expects to more efficiently utilize its manufacturing facilities, increase inventory turns, reduce product, process and overhead costs, lower manufacturing lead times and new product development cycle times and increase its operating income margins.

Value Innovation. This initiative focuses on emphasizing the Company's new product development as it seeks to expand sales and margins by leading its core markets in the introduction of new or improved products and technologies. The Company primarily uses internal development but also uses licensing of technology, other partnering arrangements and strategic acquisitions to execute multi-generational product plans in each of the Company's businesses. The Company actively seeks to commercialize emerging technologies that are capable of expanding customer uses of its products. The Company also strives to provide value to its customers by offering best in class aftermarket services and support.

Emerging Market Expansion. This initiative focuses on the Company's continued expansion into those specialty vehicle and vehicle body markets globally where it has acquired or can acquire strong market positions over time and where it believes it can leverage synergies in purchasing, manufacturing, technology and distribution to increase sales and profitability. Business development teams actively pursue new customers in targeted developing countries in Asia, Eastern Europe, the Middle East, Latin America and Africa. In pursuit of this strategy, the Company has sales and service offices in Russia, India, Saudi Arabia, China, South Korea and Japan to pursue various opportunities in each of those countries. In addition, the Company continues to expand its sales and aftermarket footprint in multiple countries in Europe, Latin America, Asia and the Middle East. The Company would also consider selectively pursuing strategic acquisitions to enhance the Company's product offerings and expand its international presence in the specialty vehicle and vehicle body markets.

Products

The Company is focused on the following core segments of the specialty vehicle and vehicle body 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, institutional and general maintenance applications to position workers and materials at elevated heights. In addition, through a long-term license with Caterpillar Inc. that extends through 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 between 36 and 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 complete line of both carriers and wreckers. In addition to manufacturing equipment, Jerr-Dan provides its customers with one-stop service for carriers and wreckers 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 90 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 service and sustainment 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 proprietary 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 for use in conditions similar to those encountered in the conflict in Afghanistan, 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 August 2009, the DoD awarded Oshkosh Defense a contract to be the sole producer of Family of Medium Tactical Vehicles (FMTV) 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 the fourth quarter of fiscal 2020. 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 FMTV vehicles. The FMTV A2 contract is a firm-fixed price requirements contract valued at \$467 million that initially covers a five-year delivery period starting in 2021, with a customer option for two additional years.

In June 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 is a five-year requirements contract for the continued remanufacturing of FHTV vehicles. The Company can accept orders under this contract through the third quarter of fiscal 2020 for deliveries through fiscal 2022. The contract is fixed-price incentive firm where the price paid to the Company is subject to adjustment based on actual costs incurred. The impact of pricing adjustments under fixed-price incentive firm contracts are generally shared by the Company and the customer.

In August 2015, Oshkosh Defense solidified its position in 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 approximately 17,000 of these technologically enhanced vehicles and sustaining services. The JLTV program is expected to be a 20-year, \$30 billion program for the production of up to 55,000 vehicles, support services and engineering. The Company delivered its first production JLTV vehicles to the U.S. Army in September 2016. The program achieved full rate production milestone decision in fiscal 2019.

In addition to retaining its current defense truck contracts, the Company's objective is to continue to diversify into other areas of the U.S. and international defense vehicle markets by expanding applications, uses and vehicle body styles of its current tactical truck lines and growing aftermarket product and service offerings.

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 special needs 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 and 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.

The Company, through 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 thirty 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, Egypt, Peru, Jamaica, Armenia, South Korea, Dominican Republic and the Philippines. 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 Airport Products, is a global leader in airport snow removal vehicles. The Company's specially designed airport snow removal vehicles are used by some of the largest airports in the world, including Dallas/Fort Worth International Airport, Hartsfield-Jackson International Airport, Minneapolis-St. Paul International Airport, O'Hare International Airport, JFK International Airport and Denver International Airport in the U.S. and Beijing, China; Incheon, South Korea; Chile, Japan and Argentina, internationally. 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.

The Company, through its Frontline brand, is a leading manufacturer, system designer and integrator of broadcast and communication 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 vehicles have been used worldwide to broadcast the NFL Super Bowl, the FIFA World Cup and the Olympics.

The Company offers three- to fifteen-year municipal lease financing programs to its fire & emergency segment customers in the U.S. through Oshkosh Equipment Finance, LLC, doing business as Pierce Financial Solutions. 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 executes the lease financing transactions through a private label arrangement with an independent third-party finance company. The Company typically provides credit support in connection with these financing and leasing arrangements.

Commercial segment. Through Oshkosh Commercial, McNeilus, London and CON-E-CO, the Company is a leading designer and manufacturer of front- and rear-discharge concrete mixers and portable and stationary concrete batch plants for the concrete ready-mix industry throughout the Americas. Through McNeilus, the Company is a leading designer and manufacturer of refuse collection vehicles for the waste services industry throughout the Americas.

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 efficient, cost-effective, dependable and low maintenance operation.

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 specialty vehicle and vehicle body markets and with its national and global sales and 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 and wreckers through its extensive network of independent distributors.

Defense segment. Oshkosh Defense sells substantially all of its domestic defense products directly to principal branches of the DoD and has sold its defense products to numerous international militaries around the globe. 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 the U.S. Armed Services to develop new applications for its vehicles and expand its services.

Logistics services are increasingly important in the defense market. The Company believes that its proven worldwide logistics capabilities and internet-based ordering, 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.

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 Frontline-branded broadcast vehicles through sales representatives and its Frontline-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. 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; Tonneins, France; and Singapore to support airport product vehicle sales and aftermarket sales and support in Europe, the Middle East, China and Southeast Asia.

Commercial segment. 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, rear- and front-discharge concrete mixers and concrete batch plants. 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 also uses independent sales and service organizations to market its CON-E-CO branded concrete batch plants. The Company believes this network represents one of the largest concrete mixer, concrete batch plant and refuse collection vehicle distribution networks in the U.S.

The Company believes its network of representatives and dealers is a competitive advantage in concrete mixer and refuse collection vehicle 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. concrete mixer and refuse collection vehicle markets, whereas dealers frequently offer a very broad and mixed product line, and accordingly, the time dealers tend to devote to concrete mixer and refuse collection vehicle sales activities is limited.

The Company has also established an extensive network of representatives and dealers throughout the Americas for the sale of Oshkosh-, McNeilus-, CON-E-CO- and London-branded concrete mixers, concrete batch plants and refuse collection vehicles 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.

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

The Company has a team of employees dedicated to leading the implementation of the Oshkosh Continuous Improvement Management System (CIMS). The team is comprised of members with diverse backgrounds in quality, lean, finance, product and process engineering, and culture change management. CIMS includes lean tools to eliminate waste and to provide better value for customers. CIMS also guides customer satisfaction assessment and helps to identify opportunities to improve the customer experience with Oshkosh. CIMS supports the execution of the Company's MOVE strategy, delivering value to both customers and shareholders. Within the Company's facilities, CIMS improvement projects have contributed to manufacturing efficiency gains, materials management improvements, steady quality improvements and reduction of lead times. CIMS improvement projects have also freed up manufacturing space, allowing the Company to pursue a program focused on increased vertical integration, further setting the Company apart as a different integrated global industrial.

Engineering, Research and Development

The Company believes its extensive engineering, research and development capabilities have been key drivers of the Company's marketplace success. The Company maintains multiple facilities for new product development and testing with a staff of approximately 1,200 engineers and technicians who are dedicated to improving existing products, development and testing of new vehicles, vehicle bodies and components and sustaining its production activities. The Company prepares multi-year new product development 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 the customer's 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. In the access equipment and commercial segments, product innovation is highly important to meet 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.

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 specialty vehicle and vehicle body markets, it has been able to effectively compete against large, mass producers due to its product quality, manufacturing flexibility, vertical integration, purchasing power in specialty vehicle components and tailored distribution systems. In addition, the Company believes it has competitive advantages over smaller vehicle and vehicle body manufacturers due to its relatively higher volumes of similar products that permit the use of moving assembly lines and which allow it to leverage purchasing power and technology 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, Aichi Corporation (a subsidiary of Toyota Industries Corporation), J C Bamford Excavators 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; extensive manufacturing capabilities; and cross-division synergies with other segments within Oshkosh Corporation.

The principal competitor for Jerr-Dan-branded products is Miller Industries, Inc. Principal methods of competition for carriers and wreckers 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 low-cost 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. Competition for sales of these vehicles includes, among others, Man Group plc, Mercedes-Benz (a subsidiary of Daimler AG), Navistar Defense LLC (a subsidiary of Cerberus Capital Management, LP), General Dynamics Corporation, Lockheed Martin Corporation, AM General LLC, BAE Systems plc and Textron Inc. The principal method of competition in the defense segment involves a competitive bid that takes into account factors as determined by the customer, such as price, product performance, product life cycle 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 leveraged across multiple business segments; 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 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 that the Company currently has 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.

Fire & emergency segment. The Company produces and sells custom and commercial firefighting vehicles in the U.S. and abroad under the Pierce brand and broadcast vehicles in the U.S. and abroad under the Frontline brand. Competitors for firefighting vehicles include Rosenbauer International AG; Emergency One, Inc., Ferrara Fire Apparatus, and Kovatch Mobile Equipment Corp. (all three owned by REV Group, Inc.); Spartan ERV (a division of Spartan Motors, 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 and the Ascendant family of aerial fire trucks. The principal competition for broadcast vehicles is from Accelerated Media Technologies and Television Engineering Corporation.

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 Emergency One, Inc. Airport Products also manufactures snow removal vehicles, principally for U.S. and Canadian airports. 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 strong service support network.

Commercial segment. The Company produces front- and rear-discharge concrete mixers and batch plants for the Americas under the Oshkosh, McNeilus, CON-E-CO and London brands. Competition for concrete mixer and batch plant sales includes Beck Industrial, Con-Tech Manufacturing, Inc., Terex Corporation, Kimble Mixer Company (a division of Crane Carrier Holdings, LLC, owned by Turnspire Capital Partners LLC) 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; 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.

McNeilus also produces refuse collection vehicles for North America and international markets. Competitors include The Heil Company (a subsidiary of Dover Corporation), Labrie Enviroquip Group, New Way (a subsidiary of Scranton Manufacturing Company, Inc.) 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; comprehensive product offerings; a reputation for high-quality products; ability to offer factory-installed compressed natural gas fuel systems; large-scale and high-efficiency manufacturing; and an extensive network of sales and service centers located throughout the U.S.

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 Gridiron Capital), Stellar Industries, Inc., Maintainer Corporation of Iowa, Inc. 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.

Customers and Backlog

Sales to the U.S. government comprised approximately 24% of the Company's net sales in fiscal 2019. 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 September 30, 2019 decreased 0.7% to \$4.14 billion compared to \$4.17 billion at September 30, 2018. Access equipment segment backlog decreased 59.5% to \$390.1 million at September 30, 2019 compared to \$962.4 million at September 30, 2018 due to a moderation of customer demand in North America and Europe and the timing of orders as customers have become more cautious in their ordering resulting in a shift in order patterns away from placing large annual orders in advance to placing more frequent orders closer to when the equipment is needed. Defense segment backlog increased 34.0% to \$2.49 billion at September 30, 2019 compared to \$1.86 billion at September 30, 2018 primarily due to a \$1.7 billion order for approximately 6,100 JLTVs and kits received from the U.S. Army during the first quarter of fiscal 2019, offset in part by shipments on all contracts during fiscal 2019. Fire & emergency segment backlog decreased 0.8% to \$970.1 million at September 30, 2019 compared to \$978.1 million at September 30, 2018. Commercial segment backlog decreased 21.1% to \$296.7 million at September 30, 2019 compared to \$376.0 million at September 30, 2018. Unit backlog for concrete mixers as of September 30, 2019 was down 36.4% due to lower market demand and timing of fleet orders. Unit backlog for refuse collection vehicles as of September 30, 2019 was down 18.2% compared to September 30, 2018 due to a large customer order that occurred late in fiscal 2018 that did not reoccur in fiscal 2019.

Reported backlog excludes purchase options and announced orders for which definitive contracts have not been executed. Backlog information and comparisons thereof as of different dates may not be accurate indicators of future sales. Approximately 11% of the Company's September 30, 2019 backlog is not expected to be filled in fiscal 2020.

Government Contracts

Approximately 24% of the Company's net sales for fiscal 2019 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 being impacted by the uncertainty regarding the 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.

Defense contract awards that Oshkosh Defense receives may be subject to protests by competing bidders. These protests, if successful, could result in the DoD revoking part or all of any defense contract it awards to Oshkosh Defense and an inability 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 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 compone

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. The Company intends to continue to pursue vertical integration opportunities to further increase its competitive advantages.

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 holds in excess of 900 active domestic and foreign patents. The Company believes patents for the TAK-4 independent suspension system, which expire between 2019 and 2040, provide the Company with a competitive advantage in the defense and fire & emergency segments. In the defense segment, the TAK-4 independent suspension system has 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. The Company believes the TAK-4 independent suspension system provided a performance and cost advantage that contributed to the Company winning these programs. In the fire & emergency segment, TAK-4 independent suspension systems are standard on all Pierce custom fire trucks, as well as Striker and Global Striker ARFF vehicles, which the Company believes brings a similar competitive advantage to these markets.

The Company believes that patents for certain components of its ProPulse hybrid electric drive system and Command Zone electronics system offer potential competitive advantages to product lines across all its segments. To a lesser extent, other proprietary components provide the Company a competitive advantage in each of the Company's segments.

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 2025 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," "McNeilus," "Jerr-Dan," "CON-E-CO," "London" and "IMT" among others. These trademarks are considered to be important to the future success of the Company's business.

Employees

As of September 30, 2019, the Company had approximately 15,400 employees. The United Auto Workers union (UAW) represented approximately 2,000 production employees at the Company's Oshkosh, Wisconsin facilities; the Boilermakers, Iron Shipbuilders, Blacksmiths and Forgers Union (Boilermakers) represented approximately 240 employees at the Company's Kewaunee, Wisconsin facility; and the International Brotherhood of Teamsters Union (Teamsters) represented approximately 220 employees at the Company's Garner, Iowa facility. The Company's agreement with the UAW expires in September 2021. The Company's five-year agreement with the Boilermakers expires in May 2022. The Company's three-year agreement with the Teamsters extends through October 2020. In addition, the majority of the Company's approximately 1,400 employees located outside of the U.S. are represented by separate works councils or unions. The Company has adopted a people first culture to build meaningful relationships with its employees and believes its relationship with its employee team members is satisfactory.

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 first fiscal quarter in all segments due to the relatively high number of holidays in the United States which reduce available shipping days.

Available Information

The Company maintains a website with the address <u>www.oshkoshcorp.com</u>. 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 consider carefully information in this Annual Report on Form 10-K in light of the risk factors described below.

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. 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. 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. 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.

Lower U.S. housing starts since fiscal 2008 have had a negative impact on sales volumes for our concrete placement products. Despite modest U.S. residential construction growth, housing starts remain below historical 30-year averages. We believe concrete mixer customers have maintained a cautious approach to fleet replacement/expansion, generally wanting to confirm that construction activity in the U.S. will support solid fleet utilization. A lack of sustained improvement in residential construction spending generally may result in our inability to achieve our sales expectations or cause future weakness in demand for our products. We cannot provide any assurance that the housing recovery will not progress even more slowly than what we or the market expect. If the housing recovery progresses more slowly than what we or the market expect, then there could be an adverse effect on our net sales, financial condition, profitability and/or cash flows.

Current economic and political conditions continue to put significant pressure on the U.S. federal budget, including the defense budget. A two-year U.S. federal budget agreement signed by the President in August 2019 removed the threat of sequestration through July 2021, but absent future budget agreements, the full effect of a sequestration could return in the government's fiscal 2022 budget. Appropriations related to the August 2019 agreement were not completed by Congress in advance of the U.S. government's fiscal year-end. As a result, a continuing resolution that funds the government through November 21, 2019 was signed by the President in September 2019. We are unable to predict the final outcome of the DoD's budgetary process at this time.

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 24% of our sales in fiscal 2019 were to the DoD. That business is subject to the following risks, among others, that could have a material adverse effect on our operating performance:

• Our business is susceptible to changes in the U.S. defense budget, which changes may reduce revenues that we expect from our defense business, especially in light of federal budget pressures, lower levels of U.S. ground troops deployed in foreign conflicts, sequestration 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 proposed reprogramming approximately \$33 billion in funding to its top modernization and readiness priorities over the years 2020 through 2024, of which approximately \$800 million is proposed to come from the Company's JLTV program.
- 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 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 government contracts for the DoD 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.
- 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 could result in the U.S. government awarding future contracts to another manufacturer or the U.S. government awarding the contracts to us at lower prices and operating margins than we experience under the current contracts.
- Competitions for the award of defense tactical wheeled vehicle contracts are intense, and we cannot provide any assurance that we will be successful in the defense tactical wheeled vehicle procurement competitions in which we participate. 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.
- 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 DoD 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.
- Most of our contracts with the DoD are multi-year firm, fixed-price contracts. These contracts typically contain annual sales price increases. Under the JLTV contract, we bear the risk of material, labor and overhead cost escalation for the full eight years of the contract, which is three to five years longer than has been the case under our other 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.
- In fiscal 2019, we began accounting for substantially all long-term contracts with the DoD 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 wages and employee benefits, productivity and availability of labor, material costs and allocated fixed costs. Changes to model mix, production costs, overhead rates, learning curve and/or supplier performance can also impact these estimates. Furthermore, under the new 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, profitability and/or cash flows.

- 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 U.S. government 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 business 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. Our defense tactical wheeled vehicle contracts are large in size and require significant personnel and production resources, and when our defense tactical wheeled vehicle customers allow such contracts to expire or significantly reduce their vehicle requirements under such contracts, we must make adjustments to personnel and production resources. The start and completion of existing and new contract awards that we may receive can cause our defense business to fluctuate significantly.
- We may face uncertainty regarding the timing of funding or payments on any new large international defense tactical wheeled vehicle contract awards that we may receive.
- 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.

Raw material price fluctuations may adversely affect our results.

We purchase, directly and indirectly through component purchases, significant amounts of steel, aluminum, petroleum-based products and other commodities. Steel, aluminum, fuel and other commodity prices have historically been highly volatile. For example, U.S. steel plate prices increased up to 35% from September 2016 through September 2019. Costs for these items may increase, or remain at increased levels, in the future due to one or more of the following: a sustained economic recovery, the level of tariffs imposed on imported steel and aluminum, including the Section 232 tariffs, or a weakening U.S. dollar. Increases in commodity costs, such as those driven by the Section 232 tariffs, negatively impact the profitability of orders in backlog as prices on those orders are usually fixed. If we are not able to recover commodity 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 flow. Additionally, if commodity costs decrease and we are unable to negotiate timely component cost decreases commensurate with any decrease in commodity costs, then our higher component prices 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.

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

We have experienced, and may in the future experience, significant disruption or termination of the supply of some of our parts, materials, components and final assemblies that we obtain from sole source suppliers or subcontractors. Delays in obtaining parts, materials, components and final assemblies may result from a number of factors affecting our suppliers including capacity constraints, labor shortages or disputes, suppliers' impaired financial condition and suppliers' allocation to other purchasers. These risks are increased in a weak economic environment and when demand increases coming out of an economic downturn.

We may incur a significant increase in the costs of parts, materials, components or final assemblies. Factors such as supply and demand, freight costs, transportation availability, inventory levels, the level of imports, the imposition of duties and tariffs, including Section 301 tariffs, and other trade barriers and general economic conditions may affect the price of these parts, materials components or final assemblies. Such disruptions, terminations or cost increases have resulted and could further result in manufacturing inefficiencies due to us having to wait for parts to arrive on the production line, could delay sales and could result in a material adverse effect on our net sales, financial condition, profitability and/or cash flows.

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

During our September 2016 Analyst Day, we announced our evolved MOVE strategy, which is our strategy to deliver long-term growth and earnings for our shareholders. We cannot provide any assurance we will be able to successfully execute our MOVE strategy due to a variety of risks, including the following:

- Our inability to adopt the use of standard processes and tools to drive improved customer satisfaction;
- Our inability to expand our aftermarket parts and service availability;
- Our inability to improve our product quality;
- Our inability to improve margins through simplification actions;
- Our failure to realize product, process and overhead cost reduction targets;
- 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; and
- · Slow adoption of our products in emerging markets and/or our inability to successfully execute our emerging market growth strategy.

We expect to incur costs and charges as a result of restructuring of facilities or operations that we expect will reduce on-going costs. These actions may be disruptive to our business and may not result in anticipated cost savings.

Periodically we restructure facilities and operations in an effort to make our business more efficient. In the future, we may incur costs, asset impairments and restructuring charges in connection with such restructuring activities, workforce reductions and other cost reduction measures that would adversely affect our future earnings and cash flows. Such actions may be disruptive to our business. This may result in production inefficiencies, product quality issues, late product deliveries or lost orders as we begin production at consolidated facilities or outsource activities to third parties, which would adversely impact our sales levels, operating results and operating margins. Furthermore, we may not realize the cost savings that we expect to realize as a result of such actions.

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 20% of our net sales in fiscal 2019 were attributable to products sold outside of the United States, of which approximately 80% 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 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 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 experience losses in excess of our recorded reserves for doubtful accounts, finance receivables, notes receivable and guarantees of indebtedness of others.

As of September 30, 2019, we had consolidated gross receivables of \$1.1 billion. In addition, we were subject to obligations to guarantee customer indebtedness to third parties of \$748.9 million, under which we estimate our maximum exposure to be \$136.4 million. We evaluate the collectibility of open accounts, finance receivables, notes receivable and our guarantees of indebtedness of others based on a combination of factors and establish reserves based on our estimates of potential 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 and past collections experience. Prolonged or more severe economic weakness may result in additional requirements for specific 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 September 30, 2019 represented approximately 41% 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 inst

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 September 30, 2019, approximately 90% 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 satisfy quarter-end financial ratios. Our ability to meet the financial ratios in such covenants may be affected by a number of risks or events, including the risks described in this Current Report on Form 8-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. Our current long-term credit ratings are BBB with "stable" outlook from S&P Global Ratings, Ba1 with "positive" outlook from Moody's Investors Service and BBB- with "stable" outlook from Fitch 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, like those announced in 2017 and 2018 by the United States Federal Reserve Board, would also increase our cost of borrowing under our credit agreement.

We had \$825 million of debt outstanding as of September 30, 2019. Our ability to make required payments of principal and interest on our debt will depend on our future performance, which, to a certain extent, is subject to general economic, financial, competitive, political and other factors, some of which are beyond our control. As we discussed above, our dependency on contracts with U.S. and foreign government agencies subjects us to a variety of risks that, if realized, could materially reduce our revenues, profits and cash flows. Accordingly, conditions could arise that could limit our ability to generate sufficient cash flows or access borrowings to enable us to fund our liquidity needs, further limit our financial flexibility or impair our ability to obtain alternative financing sufficient to repay our debt at maturity.

The covenants in our credit agreement and the indentures governing our senior notes, our credit rating, our current debt levels and the current credit market conditions could have important consequences for our operations, including:

- Render us more vulnerable to general adverse economic and industry conditions in our highly cyclical markets or economies generally;
- Require us to dedicate a portion of our cash flow from operations to interest costs or required payments on debt, thereby reducing the availability of such cash flow to fund working capital, capital expenditures, research and development, share repurchases, dividends and other general corporate activities;
- Limit our ability to obtain additional financing in the future to fund growth working capital, capital expenditures, new product development expenses and other general corporate requirements;
- Make us vulnerable to increases in interest rates as our debt under our credit agreement is at variable rates;
- · Limit our flexibility in planning for, or reacting to, changes in our business and the markets we serve; and
- Limit our ability to pursue strategic acquisitions that may become available in our markets or otherwise capitalize on business opportunities if we had additional borrowing capacity.

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

IT security threats via computer malware and other "cyber-attacks" are increasing in both frequency and sophistication. 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 business, which could involve information that is considered a matter of national security. These threats may include attempts to gain unauthorized access to our information system and networks, which we use to collect and store confidential and sensitive data, including information about our business, our customers and employees. There may also be threats to the safety of our employees and threats to our facilities, infrastructure and supply chain. The technology within our products also presents a risk to our customers that if compromised could have negative implications on the Company. As technology continues to evolve, we anticipate that we will collect, store and embed even more data capabilities in our systems and products that are sensitive to both willful and unintentional security breaches. We have designed our processes and controls to monitor and mitigate against such risks. However, there can be no assurance that these processes and controls will be sufficient to prevent such attacks. In the event of a breach in security, it may lead to customers purchasing products from our competitors, subject us to lawsuits, fines and other means of regulatory enforcement, disrupt our operations or harm employee wellbeing and/or morale.

In addition, we could be impacted by cyber threats, disruptions or vulnerabilities of our suppliers and customers. The costs of maintaining robust information security mechanisms and controls are increasing and are likely to increase further in the future. We are unable to predict the impact of a security breach at this time.

Our objective is to expand international operations and sales, the conduct of which subjects us to risks that may have a material adverse effect on our business.

Expanding international operations and sales is a significant 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. Identifying an appropriate joint venture partner and creating a joint venture could be more time consuming, more costly and more difficult than we anticipate.

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.

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, such as the partial roof collapse we experienced at one of our commercial segment manufacturing facilities during the second quarter of fiscal 2019 due to heavy snow accumulation and blizzard conditions. Our suppliers and customers also have operations in such locations. Severe weather or a natural disaster that results 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, profitability and/or cash flows.

Concrete mixer and access equipment sales also are seasonal with the majority of such sales occurring in the spring and summer months, which constitute the traditional construction season in the Northern hemisphere. The timing of orders for the traditional construction season in the Northern hemisphere can be impacted by weather conditions.

Changes in the tax regimes and related government policies and regulations in the countries in which we operate could adversely affect our results and our effective tax rate.

As a multinational corporation, we are subject to various taxes in both U.S. and non-U.S. jurisdictions. Due to economic and political conditions, tax laws, regulations and rates in these various jurisdictions may be subject to significant change. Our future effective income tax rate could be affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets or changes in tax laws or their interpretation. Developments, such as U.S. tax reform, the European Commission's investigations of illegal state aid as well as the Organisation for Economic Co-operation and Development project on Base Erosion and Profit Shifting, may result in changes to long-standing tax principles, which could adversely affect our effective tax rate or result in higher tax liabilities. Increases in our effective tax rate or tax liabilities could have a material adverse effect on our financial condition, profitability and/or cash flows.

Changes in regulations could adversely affect our business.

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 or impact the size or timing of demand for our products, all of which could make our business results more variable.

In particular, many scientists, legislators and others attribute climate change to increased levels of greenhouse gases, including carbon dioxide, which has led to significant legislative and regulatory efforts to limit greenhouse gas emissions. Congress has previously considered and may in the future implement restrictions on greenhouse gas emissions through a cap-and-trade system under which emitters would be required to buy allowances to offset emissions of greenhouse gas. In addition, several states, including states where we have manufacturing plants, are considering various greenhouse gas registration and reduction programs. Our manufacturing plants use energy, including electricity and natural gas, and certain of our plants emit amounts of greenhouse gas that may be affected by these legislative and regulatory efforts. Greenhouse gas regulation could increase the price of the electricity we purchase, increase costs for our use of natural gas, potentially restrict access to or the use of natural gas, require us to purchase allowances to offset our own emissions or result in an overall increase in our costs of raw materials, any one of which could increase our costs, reduce our competitiveness in a global economy or otherwise negatively affect our business, operations or financial results.

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, the loss of which 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 business, operating results or financial condition.

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 business, operating results or 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 September 30, 2019.

ITEM 2. PROPERTIES

The Company believes its equipment and buildings are well maintained and adequate for its present and anticipated needs. As of September 30, 2019, the Company operated in 30 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)	Fire & emergency	Appleton, Wisconsin (2)
	Shippensburg, Pennsylvania (1)		Bradenton, Florida (1)
	Greencastle, Pennsylvania (1)		Kewaunee, Wisconsin (1)
	Medias, Romania (1) (a)		Clearwater, Florida (1) (a)
	Tianjin, China (2) ^(b)		Neenah, Wisconsin (1) (a)
	Tonneins, France (1) (a)		
	Port Macquarie, Australia (1)	Commercial	Dodge Center, Minnesota (1)
	Leicester, United Kingdom (1)		Garner, Iowa (1)
	Bedford, Pennsylvania (1)		Blair, Nebraska (1)
			Riceville, Iowa (1)
Defense	Oshkosh, Wisconsin (4)		Audubon, Iowa (1)
			London, Canada (1) (a)
Corporate	Leon, Mexico (1)		
	Jefferson City, Tennessee (1) (a)		

- (a) These facilities are leased.
- (b) 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 concrete mixers and refuse collection vehicles. 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 September 30, 2019, the estimated net liabilities for product and general liability claims totaled \$36.2 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 taking into account 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 November 19, 2019 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
Wilson R. Jones	58	President and Chief Executive Officer
John J. Bryant	61	Executive Vice President and President, Defense Segment
Ignacio A. Cortina	48	Executive Vice President, General Counsel and Secretary
James W. Johnson	55	Executive Vice President and President, Fire & Emergency Segment
Frank R. Nerenhausen	55	Executive Vice President and President, Access Equipment Segment
John C. Pfeifer	54	Executive Vice President and Chief Operating Officer
David M. Sagehorn	56	Executive Vice President and Chief Financial Officer
Robert H. Sims	57	Executive Vice President and Chief Human Resources Officer
Bryan K. Brandt	51	Senior Vice President and Chief Marketing Officer
Thomas P. Hawkins	54	Senior Vice President, Government Relations
Anupam Khare	55	Senior Vice President and Chief Information Officer
Bradley M. Nelson	50	Senior Vice President and President, Commercial Segment
Tina R. Schoner	52	Senior Vice President and Chief Procurement Officer

Wilson R. Jones. Mr. Jones joined the Company in 2005 as Vice President and General Manager of the Company's airport products business. He served as President, Pierce; Executive Vice President and President, Fire & Emergency Segment from 2008 to 2010, Executive Vice President and President, Access Equipment Segment from 2010 to 2012 and most recently President and Chief Operating Officer of the Company from 2012 to 2016. Effective January 1, 2016, Mr. Jones assumed the position of President and Chief Executive Officer. Mr. Jones is also a director of the Company. Mr. Jones is a director of Thor Industries, Inc.

John J. Bryant. Mr. Bryant joined the Company in 2010 as Vice President and General Manager of Marine Corps Programs - Defense segment. He served as Vice President of Programs - Defense segment from 2013 to 2016 and as Senior Vice President and President, Defense Segment from 2016 until his appointment to his current position of Executive Vice President and President, Defense Segment in February 2018. Prior to joining Oshkosh Defense, he served as a Professor of Program Management at the Defense Acquisition University. Mr. Bryant retired from the U.S. Marine Corps with the rank of Colonel in 2008.

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 his current position of Executive Vice President, General Counsel and Secretary in 2016.

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

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 Equipment Segment in 2012.

John C. Pfeifer. Mr. Pfeifer joined the Company in May 2019 as Executive Vice President and Chief Operating Officer. He previously 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 May 2019. Prior to that, Mr. Pfeifer served as Vice President and President - Mercury Marine of Brunswick Corporation from 2014 to 2018 and Vice President of Global Operations - Mercury Marine of Brunswick from 2012 to 2014. Mr. Pfeifer is a director of the Manitowoc Company, Inc.

David M. Sagehorn. Mr. Sagehorn joined the Company in 2000 as Senior Manager - Mergers & Acquisitions and has served in various assignments, including Director - Business Development, Vice President - Defense Finance, Vice President - McNeilus Finance, Vice President - Business Development and Vice President and Treasurer. He was appointed to his current position of Executive Vice President and Chief Financial Officer in 2007. Mr. Sagehorn is a director of Chart Industries, Inc.

Robert H. Sims. Mr. Sims joined the Company in 2016 as Executive Vice President and Chief Human Resources Officer. He previously served as a Senior Vice President Human Resources Officer at Eaton Corporation, a global power management company, from 2009 to 2016. Prior to Eaton Corporation, Mr. Sims served in a variety of executive human resources roles with a number of major consumer brand companies.

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. Prior to that, Mr. Brandt served as Vice President of World Class Operation Management at Bemis Company, Inc. from 2012 to 2014.

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 September 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, most recently as Global Technology Officer and Global Director Infrastructure Services from 2008 to 2015.

Bradley M. Nelson. Mr. Nelson joined the Company in 2011 as Global Vice President of Marketing for JLG and was appointed to his current position of Senior Vice President and President, Commercial Segment in 2013. He previously served as Vice President of Global Marketing and Communications from 2007 to 2011 at Eaton Corporation.

Tina R. Schoner. Ms. Schoner joined the Company in November 2017 as Senior Vice President and Chief Procurement Officer. She previously served as the Executive Director, Global Operations Management and Strategy at United Technologies Corporation, a global technology products and services company that serves the building systems and aerospace industries, from 2015 to November 2017. Prior to that, Ms. Schoner served in positions of increasing responsibility at Rockwell Collins Inc., a worldwide leader in commercial and military aviation, most recently as Director of Enterprise Sourcing from 2012 to 2014.

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 2019:

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)
July 1 - July 31	484,071	\$	83.48	484,071	8,349,015
August 1 - August 31	338,834	\$	76.18	338,834	8,010,181
September 1 - September 30	_	\$	_	_	8,010,181
Total	822,905			822,905	8,010,181

(1) In August 2015, the Company's Board of Directors approved a stock repurchase authorization for which there was as of May 7, 2019 a remaining authority to repurchase 1,362,821 shares of Common Stock. On May 7, 2019, the Board of Directors increased the repurchase authorization by 8,637,179 shares to 10,000,000 shares. At September 30, 2019, the Company had repurchased 1,989,819 shares under this authorization. As a result, 8,010,181 shares of Common Stock remained available for repurchase under the repurchase authorization at September 30, 2019. The Company can use this 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 November 12, 2019, there were 1,837 holders of record of the Common Stock.

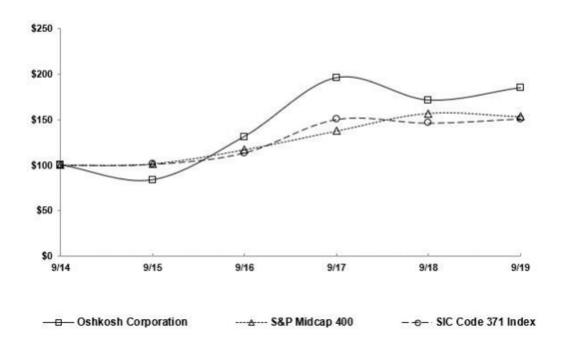
Item 12 of this Annual Report on Form 10-K contains certain information relating to the Company's equity compensation plans.

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, 2014 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 2019 return listed in the charts below is based on closing prices per share on September 30, 2019. On that date, the closing price for the Company's Common Stock was \$75.80.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Oshkosh Corporation, the S&P Midcap 400 Index, and SIC Code 371 Index



^{* \$100} invested on September 30, 2014 in stock or index, including reinvestment of dividends.

	<u></u>	September 30,								
		2015		2016		2017		2018		2019
Oshkosh Corporation	\$	85.53	\$	131.16	\$	195.69	\$	171.01	\$	184.96
S&P MidCap 400 market index		101.40		116.94		137.42		156.95		153.04
SIC Code 371 Index		100.91		113.52		150.27		146.23		150.86

ITEM 6. SELECTED FINANCIAL DATA

Finant	V	Cll	Septem	L 20
FISCAL	Year	Fuded	Sentem	ner 30.

		As adjusted (4)							
(In millions, except per share amounts)	2019		2018		2017		2016		2015
Income Statement Data:									
Net sales	\$ 8,382.0	\$	7,705.5	\$	6,829.6	\$	6,279.2	\$	6,098.1
Gross income	1,517.4		1,358.6		1,180.8		1,059.8		1,039.2
Asset impairment charges	_		_		_		26.9		_
Depreciation	76.7		79.8		81.5		73.3		64.9
Amortization of purchased intangibles, deferred financing costs and stock-based compensation (1)	67.5		67.4		71.2		74.2		81.0
Operating income (2)	797.0		656.0		470.3		368.9		400.2
Net income (3)	579.4		471.9		285.6		216.4		229.0
Diluted earnings per share (3)	\$ 8.21	\$	6.29	\$	3.77	\$	2.91	\$	2.90
Dividends per share	\$ 1.08	\$	0.96	\$	0.84	\$	0.76	\$	0.68
Balance Sheet Data:									
Cash and cash equivalents	\$ 448.4	\$	454.6	\$	447.0	\$	321.9	\$	42.9
Total assets	5,566.3		5,294.2		5,098.9		4,513.8		4,552.7
Net working capital	1,666.4		1,579.8		1,356.7		1,049.9		919.0
Long-term debt (including current maturities)	819.0		818.0		830.9		846.2		927.8
Shareholders' equity	2,599.8		2,513.5		2,307.4		1,976.5		1,911.1
Other Financial Data:									
Expenditures for property, plant and equipment	\$ 147.6	\$	95.3	\$	85.8	\$	92.5	\$	131.7
Backlog	4,144.7		4,172.9		3,791.0		3,537.9		2,607.4
Book value per share	\$ 38.24	\$	34.73	\$	30.76	\$	26.74	\$	25.33

- (1) Includes amortization of deferred financing costs of \$1.6 million in fiscal 2019, \$2.4 million in fiscal 2018, \$3.0 million in fiscal 2017, \$3.0 million in fiscal 2016 and \$6.4 million in fiscal 2015.
- (2) Includes \$35.4 million of restructuring costs, a \$19.0 million gain on the settlement of a lawsuit within the defense segment, a \$6.6 million business interruption insurance recovery within the commercial segment and a \$1.4 million loss on the sale of a small product line within the commercial segment in fiscal 2018. Includes \$43.3 million of restructuring costs in the access equipment segment in fiscal 2017.
- (3) Includes \$7.0 million, or \$0.10 per share, of tax expense related to tax reform in the United States in fiscal 2019. Includes \$27.5 million, or \$0.37 per share, of restructuring costs, a \$15.4 million, or \$0.21 per share, gain on the settlement of a lawsuit within the defense segment, a \$4.9 million, or \$0.07 per share, business interruption insurance recovery within the commercial segment, a \$1.0 million, or \$0.01 per share, loss on the sale of a small product line within the commercial segment, debt extinguishment costs of \$7.7 million, or \$0.10 per share, and tax benefits of \$10.7 million, or \$0.13 per share, related to the implementation of tax reform in the United States in fiscal 2018. Includes \$36.2 million, or \$0.48 per share, of restructuring costs in the access equipment segment in fiscal 2017. Includes debt extinguishment costs of \$9.3 million, or \$0.12 per share, in fiscal 2015.
- (4) The selected financial data has been adjusted to reflect the adoption of Accounting Standards Update 2017-07, Compensation Retirement Benefits (Topic 715), Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. See Note 2 of the Notes to Consolidated Financial Statements for a discussion of the impact of new accounting standards on the Company's consolidated financial statements.

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

General

The Company is a leading designer, manufacturer and marketer of a wide range of specialty vehicles and vehicle bodies, including access equipment, defense trucks and trailers, fire & emergency vehicles, concrete mixers and refuse collection vehicles. 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 DoD. Under the "Pierce" brand name, 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 vehicles. The Company designs and manufactures aircraft rescue and firefighting and airport snow removal vehicles under the "Oshkosh" brand name. Under the "McNeilus," "Oshkosh," "London" and "CON-E-CO" brand names, the Company designs and manufactures a wide range of automated, rear, front, side and top loading refuse collection vehicles. 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 in the U.S. and abroad.

Defense — tactical trucks, trailers and supply parts and services sold to the U.S. military and to other militaries around the world.

Fire & emergency — custom and commercial firefighting vehicles and equipment, ARFF vehicles, snow removal vehicles, simulators and other emergency vehicles primarily sold to fire departments, airports and other governmental units, and broadcast vehicles sold to broadcasters and TV stations in the U.S. and abroad.

Commercial — concrete mixers, refuse collection vehicles, portable and stationary concrete batch plants and vehicle components sold to ready-mix companies and commercial and municipal waste haulers in the Americas and other international markets and field service vehicles and truck-mounted cranes sold to mining, construction and other companies in the U.S. and abroad.

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 November 19, 2019.

Executive Overview

The Company achieved another year of significantly improved earnings growth in fiscal 2019, reflecting strong execution in an uncertain environment. The Company successfully navigated the impacts of volatile trade policy and tariffs, along with talk of an impending recession to deliver consolidated net sales of \$8.38 billion, an increase of \$676.5 million, or 8.8%, compared to fiscal 2018, consolidated operating income of \$797.0 million, an increase of \$141.0 million, or 21.5%, and diluted earnings per share of \$8.21, an increase of \$1.92 per share, or 30.5%. This was the third consecutive year that the Company increased operating income by more than 20%.

Fiscal 2019 results included \$7.0 million, or \$0.10 per share, of charges related to adjustments to the repatriation tax on deemed repatriated earnings of foreign subsidiaries required under the U.S. Tax Cuts and Jobs Act enacted in the United States in December 2017. Fiscal 2018 results included an after-tax charge of \$27.5 million, or \$0.37 per share, for costs and inefficiencies associated with restructuring actions in the access equipment and commercial segments, an after-tax gain of \$15.4 million, or \$0.21 per share, related to a litigation settlement in the defense segment, a gain of \$10.7 million, or \$0.13 per share, related to the implementation of tax reform in the United States, an after-tax charge of \$7.7 million, or \$0.10 per share, of debt extinguishment costs incurred in connection with the refinancing of the Company's senior notes and credit agreement, an after-tax gain of \$4.9 million, or \$0.07 per share, related to the receipt of business interruption insurance proceeds in the commercial segment and an after-tax loss of \$1.0 million, or \$0.01 per share, on the sale of a small product line in the commercial segment. In the aggregate, these items accounted for a net \$5.2 million, or \$0.07 per share, charge.

Sales increased \$676.5 million, or 8.8%, in fiscal 2019 as compared to fiscal 2018. The Company reported double digit percentage sales increases in the defense and fire & emergency segments and record sales of more than \$4.0 billion in the access equipment segment. Fiscal 2019 sales without the adoption of Accounting Standards Codification (ASC) 606, the new revenue recognition standard, would have been \$8.30 billion, an increase of 7.7% compared to fiscal 2018.

Consolidated operating income increased to \$797.0 million, or 9.5% of sales, in fiscal 2019 compared to \$656.0 million, or 8.5% of sales, in fiscal 2018. The fire & emergency, access equipment and defense segments all reported operating income margins of at least 10%. The commercial segment was on track for solid improvement in fiscal 2019 as well, until production was disrupted by a partial roof collapse at one of its manufacturing facilities in February as a result of heavy snow accumulation. The Company estimates that the disruption to production as a result of the partial roof collapse caused a loss in sales and operating income in fiscal 2019 of approximately \$30 million and \$12.5 million, respectively. The Company expects insurance will cover much of the costs and lost profits related to the damaged facility. Proceeds related to business interruption insurance are recorded in income only upon settlement with the insurance company.

The Company continued to execute its disciplined capital allocation strategy in fiscal 2019. The Company returned \$425 million of cash to shareholders through the repurchase of approximately 4.9 million shares of stock and payment of quarterly dividends. Share repurchases completed during the past year also benefited earnings per share by \$0.53 compared to fiscal 2018. In addition, the Company recently announced an increase in its quarterly dividend rate of 11.1%, to \$0.30, per share beginning in November 2019. This was the Company's sixth straight year of a double-digit percentage increase in its dividend rate.

The Company expects to deliver results in fiscal 2020 that would be the third highest in the Company's history. The benefits of the Company's diverse end markets and operational leverage are reflected in the Company's fiscal 2020 outlook. The Company estimates fiscal 2020 consolidated net sales will be \$7.9 billion to \$8.2 billion, compared to \$8.38 billion in fiscal 2019. The expected decline is sales in fiscal 2020 is attributable to an expected decline in sales in the access equipment segment. The Company believes that uncertainty in the economy is causing access equipment customers in North America and the Europe, Africa and Middle East region to be more cautious in ordering equipment to grow their fleets. The Company expects fiscal 2020 consolidated operating income will be in the range of \$690 million to \$765 million, resulting in earnings per share of \$7.30 to \$8.10. The Company's expectations for fiscal 2020 assume that the Company will continue to execute its MOVE strategy, including increasing new product development spending and expanding access equipment production capacity in China, which has been that segment's fastest growing market.

Results of Operations

A detailed discussion of the year-over-year changes from the Company's fiscal 2017 to fiscal 2018 can be found in the Management's Discussion and Analysis section in the Company's fiscal 2018 Annual Report on Form 10-K filed November 20, 2018.

Consolidated Net Sales — Two Years Ended September 30, 2019

The following table presents net sales (see definition of net sales contained in Note 2 of the Notes to Consolidated Financial Statements) by business segment (in millions):

	Fiscal Year End	ded Sep	tember 30,
	 2019		2018
Net sales:			
Access equipment	\$ 4,079.7	\$	3,776.8
Defense	2,032.1		1,828.9
Fire & emergency	1,266.1		1,069.7
Commercial	1,022.2		1,054.7
Intersegment eliminations and other	(18.1)		(24.6)
	\$ 8,382.0	\$	7,705.5

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

	Fiscal Year Ended September 30,			
	2019		2018	
Net sales:				
North America	\$ 7,216.6	\$	6,489.6	
Europe, Africa and the Middle East	664.2		851.8	
Rest of the world	501.2		364.1	
	\$ 8,382.0	\$	7,705.5	

Consolidated net sales increased \$676.5 million, or 8.8%, to \$8.38 billion in fiscal 2019 compared to fiscal 2018. Higher sales volumes in the access equipment, defense and fire & emergency segments as well as higher pricing in response to significant material costs escalation drove the improvement in sales. Fiscal 2019 without the adoption of the new revenue recognition standard would have been \$8.30 billion, an increase of 7.7% compared to fiscal 2018.

Access equipment segment net sales increased \$302.9 million, or 8.0%, to \$4.08 billion in fiscal 2019 compared to fiscal 2018. The increase in sales was led by a significant increase in telehandler sales in North America (\$285 million), in part as a result of improved production rates as the access equipment segment completed the move of North American telehandler production in fiscal 2018, offset in part by lower Europe, Africa and the Middle East sales (\$82 million). Higher pricing to cover significant material costs escalation also contributed to the increase in sales. A stronger U.S. dollar reduced sales in the access equipment segment in fiscal 2019 by \$33 million compared to fiscal 2018.

Defense segment net sales increased \$203.2 million, or 11.1%, to \$2.03 billion in fiscal 2019 compared to fiscal 2018. The increase in sales was primarily due to the continued ramp up of sales to the U.S. government under the JLTV program (\$307 million) offset in part by the absence of international Mine Resistant Ambush Protected-All Terrain Vehicle sales (\$94 million). Defense segment sales for fiscal 2019 without the adoption of the new revenue recognition standard would have been \$2.01 billion, an increase of 10.1% compared to fiscal 2018.

Fire & emergency segment net sales increased \$196.4 million, or 18.4%, to \$1.27 billion in fiscal 2019 compared to fiscal 2018 as a result of higher fire apparatus sales volume (\$77 million) as approximately \$40 million of sales moved from the fourth quarter of fiscal 2018 into the first quarter of fiscal 2019, changes associated with the application of the new revenue recognition standard (\$61 million) and improved pricing to cover significant material costs escalation. Fire & emergency segment sales for fiscal 2019 without the adoption of the new revenue recognition standard would have been \$1.20 billion, an increase of 12.6% compared to fiscal 2018.

Commercial segment net sales decreased \$32.5 million, or 3.1%, to \$1.02 billion in fiscal 2019 compared to fiscal 2018 on lower concrete mixer and refuse collection vehicle volumes as severe winter weather, including the partial roof collapse as a result of extreme snow accumulation, negatively impacted production at one of its manufacturing facilities in the second and third quarters of fiscal 2019. Improved pricing to cover significant material costs escalation helped offset part of the volume decline experienced in fiscal 2019.

Consolidated Cost of Sales — Two Years Ended September 30, 2019

The following table presents costs of sales by business segment (in millions):

	 Fiscal Year Ended September 30,				
	2019		2018		
Cost of sales:					
Access equipment	\$ 3,291.0	\$	3,106.7		
Defense	1,727.1		1,527.1		
Fire & emergency	998.0		844.0		
Commercial	862.4		886.7		
Intersegment eliminations and other	(13.9)		(17.6)		
	\$ 6,864.6	\$	6,346.9		

Consolidated cost of sales was \$6.86 billion, or 81.9% of sales, in fiscal 2019 compared to \$6.35 billion, or 82.4% of sales, in fiscal 2018. The 50 basis point decrease in cost of sales as a percentage of sales was primarily due to improved pricing (160 basis points) and lower restructuring-related costs and inefficiencies in the access equipment and commercial segments (40 basis points), offset in part by higher material costs (120 basis points).

Access equipment segment cost of sales was \$3.29 billion, or 80.7% of sales, in fiscal 2019 compared to \$3.11 billion, or 82.3% of sales, in fiscal 2018. The 160 basis point decrease in cost of sales as a percentage of sales was largely due to the absence of restructuring-related costs and inefficiencies (80 basis points), lower freight costs (50 basis points) and improved regional mix (20 basis points). Improved pricing (220 basis points) was completely offset by higher material costs (220 basis points).

Defense segment cost of sales was \$1.73 billion, or 85.0% of sales, in fiscal 2019 compared to \$1.53 billion, or 83.5% of sales, in fiscal 2018. The 150 basis point increase in cost of sales as a percentage of sales was primarily attributable to adverse product mix (160 basis points) due largely to the continued shift to a higher weighting of JLTV sales and lower international M-ATV sales. JLTV revenue represented approximately 50% of the defense segments sales in fiscal 2019.

Fire & emergency segment cost of sales was \$998.0 million, or 78.8% of sales, in fiscal 2019 compared to \$844.0 million, or 78.9% of sales, in fiscal 2018. Improved pricing (240 basis points) and lower new product development spending (100 basis points) were offset by higher material and production costs (240 basis points) and adverse product mix (120 basis points).

Commercial segment cost of sales was \$862.4 million, or 84.4% of sales, in fiscal 2019 compared to \$886.7 million, or 84.1% of sales, in fiscal 2018. The 30 basis point increase in cost of sales as a percentage of sales was largely due to production disruptions as a result of the roof collapse (160 basis points), material cost increases (70 basis points) and the receipt of business interruption insurance proceeds in fiscal 2018 (60 basis points), offset in part by improved mix (140 basis points) and improved pricing (110 basis points).

Intersegment eliminations and other includes intercompany profit on intersegment sales not yet sold to third party customers.

Consolidated Operating Income (Loss) — Two Years Ended September 30, 2019

The following table presents operating income (loss) by business segment (in millions):

	Fiscal Year End	tember 30,	
	2019		2018
Operating income (loss):	_		
Access equipment	\$ 502.6	\$	387.5
Defense	203.3		225.4
Fire & emergency	176.5		137.6
Commercial	66.8		67.5
Corporate	 (152.2)		(162.0)
	\$ 797.0	\$	656.0

Consolidated operating income increased \$141.0 million, or 21.5%, to \$797.0 million, or 9.5% of sales, in fiscal 2019 compared to \$656.0 million, or 8.5% of sales, in fiscal 2018. The increase in operating income was primarily a result of higher gross margin associated with higher sales (\$131 million), improved price/cost dynamics (\$46 million) and lower restructuring-related costs and inefficiencies in the access equipment and commercial segments (\$35 million), offset in part by adverse product mix (\$27 million), a gain on a litigation settlement in the defense segment in fiscal 2018 (\$19 million) and a gain on the receipt of business interruption insurance proceeds in the commercial segment in fiscal 2018 (\$7 million). Fiscal 2018 also included benefits of \$8.9 million related to the collection of receivables that had previously been fully reserved and \$7.7 million related to the recognition of deferred margin upon the receipt of cash from a customer.

Access equipment segment operating income increased \$115.1 million, or 29.7%, to \$502.6 million, or 12.3% of sales, in fiscal 2019 compared to \$387.5 million, or 10.3% of sales, in fiscal 2018. The increase in operating income was primarily the result of higher gross margin associated with higher sales volume (\$59 million), the absence of restructuring-related charges and inefficiencies (\$30 million), improved price/cost dynamics (\$22 million) and lower freight costs (\$20 million). Fiscal 2018 also included benefits of \$8.9 million related to the collection of receivables that had previously been fully reserved and \$7.7 million related to the recognition of deferred margin upon the receipt of cash from a customer.

Defense segment operating income decreased \$22.1 million, or 9.8%, to \$203.3 million, or 10.0% of sales, in fiscal 2019 compared to \$225.4 million, or 12.3% of sales, in fiscal 2018. The decrease in operating income was primarily the result of a gain on a litigation settlement in fiscal 2018 (\$19 million), adverse product mix due to the ramp-up of JLTV production and lower international M-ATV sales (\$17 million) and costs to start up a manufacturing facility in Tennessee (\$10 million), offset in part by higher gross margin associated with higher sales volume (\$23 million). Included in mix are changes in estimates on contracts accounted for under the cost-to-cost method on prior year revenues, which increased defense segment operating income by \$44.7 million and \$2.2 million in fiscal 2019 and 2018, respectively. Defense segment operating income for fiscal 2019 without the adoption of the new revenue recognition standard would have been \$192.2 million, or 9.5% of sales.

Fire & emergency segment operating income increased \$38.9 million, or 28.3%, to \$176.5 million, or 13.9% of sales, in fiscal 2019 compared to \$137.6 million, or 12.9% of sales, in fiscal 2018. The increase in operating income was primarily the result of higher gross margin attributable to higher sales volume (\$44 million) and improved price/cost dynamics (\$11 million), offset in part by adverse product mix (\$16 million). Fire & emergency segment operating income for fiscal 2019 without the adoption of the new revenue recognition standard would have been \$167.2 million, or 13.9% of sales.

Commercial segment operating income decreased \$0.7 million, or 1.0%, to \$66.8 million, or 6.5% of sales, in fiscal 2019 compared to \$67.5 million, or 6.4% of sales, in fiscal 2018. The decrease in operating income was primarily a result of the impact of the business disruption caused by the weather-related partial roof collapse at one of its manufacturing facilities in the second quarter of fiscal 2019 (\$12 million), offset in part by favorable product mix (\$14 million) and improved price/cost dynamics (\$8 million). Fiscal 2018 results included a \$6.6 million gain on the receipt of business interruption insurance proceeds, \$5.9 million of charges associated with restructuring actions and a \$1.4 million loss on the sale of a small product line.

Corporate operating costs decreased \$9.8 million to \$152.2 million in fiscal 2019 compared to fiscal 2018. The decrease in corporate operating costs was primarily due to lower management incentive compensation expense (\$4 million) and lower consulting costs (\$4 million).

Consolidated selling, general and administrative expenses increased \$19.2 million, or 2.9%, to \$683.5 million, or 8.2% of sales, in fiscal 2019 compared to \$664.3 million, or 8.6% of sales, in fiscal 2018. The increase in consolidated selling, general and administrative expenses was generally a result of a gain on a litigation settlement in the defense segment in fiscal 2018 (\$19 million).

Non-Operating Income (Expense) — Two Years Ended September 30, 2019

Interest expense net of interest income decreased \$8.0 million to \$47.6 million in fiscal 2019 compared to fiscal 2018 primarily due to \$9.9 million of debt extinguishment costs incurred in connection with the refinancing of the Company's senior notes and credit agreement in April 2018 and lower interest costs as the result of refinancing the Company's debt, offset in part by the receipt of interest in fiscal 2018 from a customer that had been on non-accrual status.

Other miscellaneous income, net of \$1.3 million in fiscal 2019 and other miscellaneous expense, net of \$5.8 million in fiscal 2018 primarily related to net foreign currency transaction gains and losses, investment gains and losses on a rabbi trust and non-service related costs of the Company's pension plans.

Provision for Income Taxes — Two Years Ended September 30, 2019

The Company recorded income tax expense of \$171.3 million, or 22.8% of pre-tax income, in fiscal 2019 compared to \$123.8 million, or 20.8% of pre-tax income, in fiscal 2018. Results for fiscal 2019 were adversely impacted by discrete tax charges of \$1.9 million, including \$7.0 million of charges for uncertain tax position reserves related to a repatriation tax on deemed repatriated earnings of foreign subsidiaries created by tax reform in the United States (the "Transition Tax") (90 basis points), offset in part by favorable share-based compensation tax benefits of \$1.5 million (20 basis points), \$1.5 million of tax benefits related to state tax matters (20 basis points) and a \$1.4 million tax benefit related to a foreign provision-to-return adjustment (20 basis points). Results for fiscal 2018 were favorably impacted by discrete tax benefits of \$21.7 million, primarily due to a \$10.7 million net tax benefit related to tax reform in the United States (180 basis points), favorable share-based compensation tax benefits of \$7.2 million (120 basis points), \$5.1 million of tax benefits related to state tax matters (90 basis points) and a \$2.5 million tax benefit related to a foreign provision-to-return adjustment (40 basis points). See Note 7 of the Notes to Consolidated Financial Statements for a reconciliation of the effective tax rate compared to the U.S. statutory tax rate.

On December 22, 2017, the U.S. Tax Cuts and Jobs Act (the "Tax Reform Act") was signed into law. The Tax Reform Act significantly revised the U.S. corporate income tax regime by, among other things, lowering the U.S. corporate tax rate from 35% to 21% effective January 1, 2018, repealing the deduction for domestic production activities, implementing a territorial tax system and imposing a repatriation tax on deemed repatriated earnings of foreign subsidiaries. As a result of the Tax Reform Act, the Company recorded a tax benefit of \$30.2 million due to a remeasurement of deferred tax assets and liabilities and a tax charge of \$19.5 million due to the Transition Tax in fiscal 2018. The Company recorded a \$7.0 million charge for changes to uncertain tax position reserves related to the Transition Tax liability in fiscal 2019.

Equity in Earnings of Unconsolidated Affiliates — Two Years Ended September 30, 2019

Equity in earnings of unconsolidated affiliates of \$1.1 million in fiscal 2018 primarily represented the Company's equity interest in a commercial entity in Mexico and a joint venture in Europe.

Liquidity and Capital Resources

The Company generates significant capital resources from operating activities, which is the expected primary source of funding for its operations. Other sources of liquidity are availability under the Revolving Credit Facility (as defined in "Liquidity") and available cash and cash equivalents of \$448.4 million at September 30, 2019. The Company had \$786.3 million of unused available capacity under the Revolving Credit Facility as of September 30, 2019 if liquidity needs would arise. Borrowings under the Revolving Credit Facility could, as discussed below, be limited by the financial covenants contained within the Credit Agreement (as defined in "Liquidity"). These sources of liquidity are needed to fund the Company's working capital requirements, debt service requirements, capital expenditures, share repurchases, dividends and acquisitions that the Company may pursue on an opportunistic basis. The Company expects to meet its fiscal 2020 U.S. funding needs without repatriating undistributed profits that are indefinitely reinvested outside the United States.

The Company expects to generate approximately \$590 million of cash flow from operations in fiscal 2020, with approximately \$150 million of the cash generated from operations planned to be utilized for capital spending needs. The Company expects to return approximately 50% of its free cash flow (defined as "cash flows from operations" less "additions to property, plant and equipment" less "additions to equipment held for rental" plus "proceeds from sale of property, plant and equipment" plus "proceeds from sale of equipment held for rental") to shareholders in the form of dividends and share repurchases in fiscal 2020. The Company expects to have sufficient liquidity to finance its operations over the next twelve months.

Financial Condition at September 30, 2019

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

	Septem	ber 30,	
	2019		2018
Cash and cash equivalents	\$ 448.4	\$	454.6
Total debt	819.0		818.0
Total shareholders' equity	2,599.8		2,513.5
Total capitalization (debt plus equity)	3,418.8		3,331.5
Debt to total capitalization	24.0%		24.6%

The Company's ratio of debt to total capitalization of 24.0% at September 30, 2019 remained within its targeted range.

During fiscal 2019, the Company repurchased 4,866,532 shares of its Common Stock at a cost of \$350.1 million under repurchase authorizations approved by the Company's Board of Directors. At September 30, 2019, the Company had approximately 8 million shares of Common Stock remaining under this purchase authorization. In August 2015, the Company's Board of Directors approved a stock repurchase authorization for which there was as of May 7, 2019 a remaining authority to repurchase 1,362,821 shares of Common Stock. On May 7, 2019 the Board of Directors increased the repurchase authorization by 8,637,719 shares to 10,000,000 shares.

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 63 days at both September 30, 2018 and September 30, 2019. Days sales outstanding for segments other than the defense segment were 52 days at September 30, 2019, down slightly from 53 days at September 30, 2018. Consolidated inventory turns (defined as "Cost of Sales" on an annualized basis, divided by the average "Inventory" at the past five quarter end periods) increased from 5.1 times at September 30, 2018 to 5.2 times at September 30, 2019. As a result of the adoption of the new revenue recognition standard, work-in process inventory that related to government programs or was mounted on a customer chassis was recognized as cost of sales and is no longer in the Company's inventory.

A detailed discussion of the year-over-year changes in cash flows from the Company's fiscal 2017 and 2018 can be found in the Management Discussion and Analysis section in the Company's fiscal 2018 Annual Report on Form 10-K filed November 20, 2018.

Operating Cash Flows

The Company generated \$568.3 million of cash from operating activities during fiscal 2019 compared to \$436.3 million during fiscal 2018. The increase in cash generated from operating activities in fiscal 2019 compared to fiscal 2018 was primarily due to an increase in consolidated net income of \$107.5 million and a \$50 million increase in income taxes payable.

Investing Cash Flows

Net cash used in investing activities in fiscal 2019 was \$153.0 million compared to \$90.4 million in fiscal 2018. Additions to property, plant and equipment of \$147.6 million in fiscal 2019 reflected an increase in capital spending of \$52.3 million compared to fiscal 2018. The higher than typical capital spending for the Company largely reflects the construction of the Company's new global headquarters in Oshkosh, Wisconsin. The Company expects that approximately \$150 million of cash will be utilized for additions to property, plant and equipment in fiscal 2020.

Financing Cash Flows

Financing activities used cash of \$421.6 million in fiscal 2019 compared to \$338.9 million in fiscal 2018. The increase in cash utilized for financing activities was due to an increase in Common Stock repurchases under the authorization approved by the Company's Board of Directors. In fiscal 2019, the Company repurchased approximately 4.9 million shares of its Common Stock at an aggregate cost of \$350.1 million. In fiscal 2018, the Company repurchased approximately 3.3 million shares of its Common Stock at an aggregate cost of \$249.3 million. In addition, the Company paid dividends of \$75.5 million and \$71.2 million in fiscal 2019 and 2018, respectively. The Company increased its quarterly dividend rate by approximately 11% in November 2019.

Liquidity

Senior Credit Agreement

On April 3, 2018, the Company entered into a Second Amended and Restated Credit Agreement with various lenders (the "Credit Agreement"). The Credit Agreement provides for (i) an unsecured revolving credit facility (the "Revolving Credit Facility") that matures in April 2023 with an initial maximum aggregate amount of availability of \$850 million and (ii) an unsecured \$325 million term loan (the "Term Loan") due in quarterly principal installments of \$4.1 million commencing September 30, 2019 with a balloon payment of \$264.1 million due at maturity in April 2023. At September 30, 2019, outstanding letters of credit of \$63.7 million reduced available capacity under the Revolving Credit Facility to \$786.3 million. See Note 14 of the Notes to Consolidated Financial Statements for additional information regarding the Credit Agreement.

Under the Credit Agreement, the Company is obligated to pay (i) an unused commitment fee ranging from 0.125% to 0.275% per annum of the average daily unused portion of the aggregate revolving credit commitments under the Credit Agreement and (ii) a fee ranging from 0.563% to 1.75% 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 at a variable rate equal to (i) LIBOR plus a specified margin, which may be adjusted upward or downward depending on whether certain criteria are satisfied, or (ii) for dollar-denominated loans only, the base rate (which is the highest of (a) the administrative agent's prime rate, (b) the federal funds rate plus 0.50% or (c) the sum of 1% plus one-month LIBOR) plus a specified margin, which may be adjusted upward or downward depending on whether certain criteria are satisfied.

Covenant Compliance

The Credit Agreement contains various restrictions and covenants, including requirements that the Company maintain certain financial ratios at prescribed levels and restrictions, subject to certain exceptions, on the ability of the Company and certain of its subsidiaries to consolidate or merge, create liens, incur additional indebtedness, dispose of assets, and consummate acquisitions.

The Credit Agreement contains the following financial covenants:

- Leverage Ratio: A maximum leverage ratio (defined as, with certain adjustments, the ratio of the Company's consolidated indebtedness to consolidated net income 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.
- Interest Coverage Ratio: A minimum interest coverage ratio (defined as, with certain adjustments, the ratio of the Company's consolidated EBITDA to the Company's consolidated cash interest expense) as of the last day of any fiscal quarter of 2.50 to 1.00.

With certain exceptions, the Credit Agreement limits the ability of the Company to pay dividends and other distributions, including repurchases of shares of its Common Stock. However, so long as no event of default exists under the Credit Agreement or would result from such payment, the Company may pay dividends and other distributions after April 3, 2018 in an aggregate amount not exceeding the sum of:

- i. \$1.46 billion;
- ii. 50% of the consolidated net income of the Company and its subsidiaries (or if such consolidated net income is a deficit, minus 100% of such deficit), accrued on a cumulative basis during the period beginning on April 3, 2018 and ending on the last day of the fiscal quarter immediately preceding the date of the applicable proposed dividend or distribution; and
- iii. 100% of the aggregate net proceeds received by the Company subsequent to April 3, 2018 either as a contribution to its common equity capital or from the issuance and sale of its Common Stock.

The Company was in compliance with the financial covenants contained in the Credit Agreement as of September 30, 2019 and expects to be able to meet the financial covenants contained in the Credit Agreement over the next twelve months.

Senior Notes

In March 2015, the Company issued \$250.0 million of 5.375% unsecured senior notes due March 1, 2025 (the "2025 Senior Notes"). The proceeds of the note issuance were used to repay existing outstanding notes of the Company.

On May 17, 2018 the Company issued \$300.0 million of 4.600% unsecured senior notes due May 15, 2028 (the "2028 Senior Notes") at a \$1.0 million discount. The Company used the net proceeds from the sale of the 2028 Senior Notes to repay certain outstanding notes of the Company and to pre-pay \$49.2 million of quarterly principal installment payments under the Term Loan. The 2025 Senior Notes and the 2028 Senior Notes were issued pursuant to separate indentures (the "Indentures") between the Company and a trustee. The Indentures contain customary affirmative and negative covenants. The Company has the option to redeem the 2025 Senior Notes for a premium after March 1, 2020. The Company has the option to redeem the 2028 Senior Notes at any time for a premium.

See Note 14 of the Notes to Consolidated Financial Statements for additional information regarding the Company's outstanding debt as of September 30, 2019.

Contractual Obligations, Commitments and Off-Balance Sheet Arrangements

Following is a summary of the Company's contractual obligations and payments due by period following September 30, 2019 (in millions):

				Pa	ıym	ents Due by Peri	od			
	Less Than						More Than			
		Total		1 Year		1-3 Years		3-5 Years		5 Years
Long-term debt (including interest)(1)	\$	1,043.6	\$	35.8	\$	72.0	\$	330.3	\$	605.5
Operating leases		106.7		34.0		42.6		18.4		11.7
Purchase obligations(2)		1,288.6		1,278.5		9.8		0.3		_
Other long-term liabilities:										
Uncertain tax positions(3)		_		_		_		_		_
Other(4)		666.3		42.4		78.8		51.5		493.6
	\$	3,105.2	\$	1,390.7	\$	203.2	\$	400.5	\$	1,110.8

- (1) Interest was calculated based upon the interest rate in effect on September 30, 2019.
- (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.
- Due to the uncertainty of the timing of settlement with taxing authorities, the Company is unable to make reasonably reliable estimates of the period of cash settlement of unrecognized tax benefits for the remaining uncertain tax liabilities. Therefore, \$97.3 million of unrecognized tax benefits as of September 30, 2019 have been excluded from the Contractual Obligations table above. See Note 7 of the Notes to Consolidated Financial Statements for additional information regarding the Company's unrecognized tax benefits as of September 30, 2019.
- (4) 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.

The following is a summary of the Company's commitments by period following September 30, 2019 (in millions):

		Amount of Commitment Expiration Per Period								
		Less Than							N	Nore Than
	7	Γotal		1 Year	1	3 Years	3-	5 Years		5 Years
Customer financing guarantees to third parties	\$	146.7	\$	102.0	\$	9.7	\$	8.1	\$	26.9
Standby letters of credit		63.7		54.4		9.2		0.1		_
	\$	210.4	\$	156.4	\$	18.9	\$	8.2	\$	26.9

The Company incurs contingent limited recourse liabilities with respect to customer financing activities primarily in the access equipment segment. For additional information relative to guarantees, see Note 16 of the Notes to Consolidated Financial Statements.

Fiscal 2020 Outlook

The Company estimates consolidated net sales will be \$7.9 billion to \$8.2 billion in fiscal 2020, compared to \$8.38 billion in fiscal 2019. The Company expects consolidated operating income will be in the range of \$690 million to \$765 million, resulting in earnings per share of \$7.30 to \$8.10. The fiscal 2020 estimates assume an average share count of 69.0 million, which reflects the full year impact of fiscal 2019 share repurchases and an expectation that the Company will return 50% of its free cash flow to shareholders in the form of dividends and share repurchases, consistent with its long-term target.

The Company believes access equipment segment net sales will be between \$3.5 billion to \$3.8 billion in fiscal 2020, a 7% to 14% decline compared to fiscal 2019 net sales. The Company's estimates reflect expectations that North American sales will be down low 13% to 20% reflecting a pause in fleet growth by rental companies compared to the last two years, a double-digit percentage decline in sales in the Europe, Middle East and Africa region and strong double digit percentage increase in demand in the Pacific Rim region. The increase in the Pacific Rim region reflects expected continued product adoption in that region. The Company expects operating margin in the access equipment segment in fiscal 2020 will be in the range of 11.25% to 12.25%. The Company expects lower amortization expense and the positive impact of operational initiatives to offset the impact of a less favorable regional sales mix compared to fiscal 2019 and higher new product development spending.

The Company expects defense segment net sales will be approximately \$2.2 billion in fiscal 2020, an increase of 8.25% compared to fiscal 2019. The fiscal 2020 estimate reflects additional JLTV production and modestly lower FHTV and FMTV sales. The Company expects defense segment operating income margin will be approximately 9.0% in fiscal 2020, reflecting the continued mix shift to a higher percentage of JLTVs and increased new product development spending.

The Company expects fire & emergency segment net sales will be approximately \$1.2 billion in fiscal 2020, approximately \$65 million lower than fiscal 2019. The lower expected fire & emergency segment sales are mostly a reflection of activity in fiscal 2019, where approximately \$40 million of sales moved from the fourth quarter of fiscal 2018 into the first quarter of fiscal 2019. The Company expects operating margin in the fire & emergency segment to increase to a range of 14.5% to 15.0% in fiscal 2020 as a result of the continued execution of the Company's simplification strategy.

The Company estimates commercial segment net sales will be approximately \$1.05 billion in fiscal 2020, up slightly from fiscal 2019 sales. The Company expects operating income margin in this segment to be in the range of 7.0% to 7.25% after fiscal 2019 margins were negatively impacted by the partial roof collapse at one of its manufacturing facilities.

The Company estimates corporate expenses in fiscal 2020 will be between \$150 million and \$155 million, approximately equivalent to fiscal 2019. The Company estimates its effective tax rate for fiscal 2020 will be between 21.25% to 21.50%, similar to fiscal 2019.

The Company expects consolidated sales in the first quarter of fiscal 2020 to be down by a mid-single digit percent compared to the first quarter of fiscal 2019, with lower access equipment and fire & emergency segment sales more than offsetting higher defense segment sales. The Company expects operating income and earnings per share in the first quarter of fiscal 2020 to be down meaningfully more than the expected decline in sales on a percentage basis due to the impact in the prior year quarter of receipt of a large JLTV order in the defense segment, which increased operating income in the first quarter of fiscal 2019 by \$30.3 million. The defense segment is also expecting higher new product development spending in the first quarter of fiscal 2020 as compared to the first quarter of fiscal 2019. The Company also expects commercial segment operating income margin will be down due to several favorable adjustments in the first quarter of fiscal 2019 that the Company does not expect to repeat in the first quarter of fiscal 2020.

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 ASC 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. Approximately 31%, of the Company's revenues were recognized under the percentage-of-completion accounting method in fiscal 2019.

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, vehicle and after-market 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 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.

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 products. 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 2019. 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 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 effect 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 to the customer continuously during the contract term and therefore revenue is recognized 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 continuous transfer of control determination as a result of the customized nature of its goods and services and contractual rights.

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 during the contract term 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 currently being incurred 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 September 30, 2019, 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 on prior year revenues increased defense segment operating income by \$44.7 million in fiscal 2019. Changes in estimates on contracts accounted for under the cost-to-cost method on prior year revenues increased defense segment operating income by \$2.2 million in fiscal 2018.

Impairment of Goodwill and Indefinite-Lived Intangible Assets. Goodwill and indefinite-lived intangible assets are tested for impairment annually, or more frequently if events or changes in circumstances indicate that the assets might be impaired. Such circumstances include a significant adverse change in the business climate for one of the Company's reporting units, a material negative change in relationships with significant customers, or strategic decisions made in response to economic and competitive conditions. The Company performs its annual review 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. A reporting unit is an operating segment or, under certain circumstances, a component of an operating segment that constitutes a business. When the fair value of the reporting unit is less than the carrying value of the reporting unit, a further analysis is performed to measure and recognize the amount of the impairment loss, if any. 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 estimate of the fair value of the reporting units is generally determined on the basis of discounted future cash flows and a market approach. In estimating the fair value, management must make assumptions and projections regarding such items as the Company performance and profitability under existing contracts, its success in securing future business, the appropriate risk-adjusted interest rate used to discount the projected cash flows, and terminal value growth and earnings rates. The assumptions used in the estimate of fair value are generally consistent with the past performance of each reporting unit and are also consistent with the projections and assumptions that are used in current operating plans. Such assumptions are subject to change as a result of changing economic and competitive conditions.

The rate used to discount estimated cash flows is a rate corresponding to the Company's cost of capital, adjusted for risk where appropriate, and is dependent upon interest rates at a point in time. To assess the reasonableness of the discounted projected cash flows, the Company compares the sum of its reporting units' fair value to the Company's market capitalization and calculates an implied control premium (the excess of the sum of the reporting units' fair values over the market capitalization). The reasonableness of this control premium is evaluated by comparing it to control premiums for recent comparable market transactions. Consistent with prior years, 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. There are inherent uncertainties related to these factors and management's judgment in applying them to the analysis of goodwill impairment. It is possible that assumptions underlying the impairment

analysis will change in such a manner to cause further impairment of goodwill, which could have a material impact on the Company's results of operations. The Company completed the required goodwill impairment test as of July 1, 2019. The Company identified no indicators of goodwill impairment in the test performed as of July 1, 2019. In order to evaluate the sensitivity of any quantitative fair value calculations on the goodwill impairment test, a hypothetical 10% decrease to the fair values of any reporting unit was calculated. This hypothetical 10% decrease would still result in excess fair value over carrying value for the reporting units as of July 1, 2019.

The Company evaluates the recoverability of indefinite-lived trade names based upon a "relief from royalty" method. This methodology determines the fair value of each trade name through use of a discounted cash flow model that incorporates an estimated "royalty rate" the Company would be able to charge a third party for the use of the particular trade name. In determining the estimated future cash flows, the Company considers projected future sales, a fair market royalty rate for each applicable trade name and an appropriate discount rate to measure the present value of the anticipated cash flows.

At July 1, 2019, the Company had approximately \$1.38 billion of goodwill and indefinite-lived purchased intangibles, of which 90% 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 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.

New Accounting Standards

See Note 2 of the Notes to Consolidated Financial Statements for a discussion of the impact of new accounting standards on the Company's consolidated financial statements.

Customers and Backlog

Sales to the U.S. government comprised approximately 24% of the Company's net sales in fiscal 2019. 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 September 30, 2019 decreased 0.7% to \$4.14 billion compared to \$4.17 billion at September 30, 2018. Access equipment segment backlog decreased 59.5% to \$390.1 million at September 30, 2019 compared to \$962.4 million at September 30, 2018 due to a moderation of customer demand in North America and Europe and the timing of orders as customers have become more cautious in their ordering resulting in a shift in order patterns away from placing large annual orders in advance to placing more frequent orders closer to when the equipment is needed. Defense segment backlog increased 34.0% to \$2.49 billion at September 30, 2019 compared to \$1.86 billion at September 30, 2018 primarily due to a \$1.7 billion order for approximately 6,100 JLTVs and kits received from the U.S. Army during the first quarter of fiscal 2019, offset in part by shipments on all contracts during fiscal 2019. Fire & emergency segment backlog decreased 0.8% to \$970.1 million at September 30, 2019 compared to \$978.1 million at September 30, 2018. Commercial segment backlog decreased 21.1% to \$296.7 million at September 30, 2019 compared to \$376.0 million at September 30, 2018. Unit backlog for concrete mixers as of September 30, 2019 was down 36.4% due to lower market demand and timing of fleet orders. Unit backlog for refuse collection vehicles as of September 30, 2019 was down 18.2% compared to September 30, 2018 due to a large customer order that occurred late in fiscal 2018 that did not reoccur in fiscal 2019.

Reported backlog excludes purchase options and announced orders for which definitive contracts have not been executed. 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 11% of the Company's September 30, 2019 backlog is not expected to be filled in fiscal 2020.

Financial 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. Based on debt outstanding at September 30, 2019, a 100 basis point increase or decrease in the average cost of the Company's variable rate debt would increase or decrease annual pre-tax interest expense by approximately \$2.8 million.

The table below provides information about the Company's debt obligations, which are sensitive to changes in interest rates (dollars in millions):

			E	xpected Ma	atur	ity Date							
	 2020	2021		2022		2023	2024	Th	ereafter	,	Total	Fai	ir Value
Liabilities													
Long-term debt:													
Variable rate (\$US)	\$ _	\$ _	\$	2.8	\$	272.2	\$ _	\$	_	\$	275.0	\$	275.0
Average interest rate	3.0469%	2.6660%		2.6118%		2.6313%	2.6713%		-%		2.6311%		
Fixed rate (\$US)	\$ _	\$ _	\$	_	\$	_	\$ _	\$	550.0	\$	550.0	\$	581.0
Average interest rate	4.9523%	4.9523%		4.9523%		4.9523%	4.9523%		4.7578%		4.8664%		

The table presents principal cash flows and related weighted-average interest rates by expected maturity dates. Weighted-average variable rates are based on implied forward rates in the yield curve at the reporting date.

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. 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, Romania, the United Kingdom and China and sales and limited vehicle body mounting activities on five continents. International sales comprised approximately 18% of overall net sales in fiscal 2019, of which approximately 82% involved exports from the U.S. The majority of export sales in fiscal 2019 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 Mexican peso and changes between the U.S. dollar and the Chinese renminbi.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The information under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations — Financial Market Risk" contained in Item 7 of this Form 10-K is hereby incorporated by reference in answer to this item.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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 September 30, 2019 and 2018, the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows, for each of the three years in the period ended September 30, 2019, 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 September 30, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2019, 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 September 30, 2019, 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 November 19, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 3 to the financial statements, the Company has changed its method of accounting for revenue from contracts with customers effective October 1, 2018 due to the adoption of Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606), as amended, using the modified retrospective adoption method.

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 with the U.S. Government for the production of goods, the provision of services, or a combination of both totaling \$2,024.7 million for the year ended September 30, 2019. 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 Vehicle (JLTV) and Family of Medium Tactical Vehicles (FMTV A2) contracts represent the majority of the total estimated costs to complete in the defense segment as of September 30, 2019. Given the complexity of these contracts and the length of the contract terms, together with the significant judgments necessary to estimate costs used to measure progress on these contracts, auditing the estimates of costs for these contracts 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 and FMTV A2 contracts 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 management's ability to achieve the estimates of costs to completion by comparing the estimates to management's work plans, engineering specifications, and supplier contracts, and performing corroborating inquiries with the Company's project managers and engineers.
- 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 November 19, 2019

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 September 30, 2019, 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 September 30, 2019, 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 September 30, 2019, of the Company and our report dated November 19, 2019, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company's adoption of a new accounting standard.

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 November 19, 2019

OSHKOSH CORPORATION CONSOLIDATED STATEMENTS OF INCOME

(In millions, except per share amounts)

Fiscal Year Ended September 30, As adjusted 2019 2018 2017 Net sales 8,382.0 7,705.5 \$ 6,829.6 Cost of sales 6,864.6 6,346.9 5,648.8 Gross income 1,517.4 1,358.6 1,180.8 Operating expenses: Selling, general and administrative 683.5 664.3 664.7 Amortization of purchased intangibles 36.9 45.8 38.3 Total operating expenses 720.4 702.6 710.5 797.0 470.3 Operating income 656.0 Other income (expense): Interest expense (54.4)(70.9)(59.8)Interest income 6.8 15.3 4.9 Miscellaneous, net 1.3 (5.8)(4.1)Income before income taxes and earnings of unconsolidated affiliates 750.7 594.6 411.3 127.2 Provision for income taxes 171.3 123.8 Income before earnings of unconsolidated affiliates 579.4 470.8 284.1 Equity in earnings of unconsolidated affiliates 1.1 1.5 \$ Net income 579.4 \$ 471.9 \$ 285.6 Earnings per share: \$ \$ \$ 3.82 Basic 8.30 6.38 Diluted 8.21 6.29 3.77

OSHKOSH CORPORATION CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In millions)

Fiscal Year Ended September 30, 2019 2018 2017 471.9 \$ 579.4 \$ 285.6 Net income Other comprehensive income (loss), net of tax: Employee pension and postretirement benefits (49.4)35.3 27.7 Currency translation adjustments (36.3)(17.6)22.5 Change in fair value of derivative instruments 0.5 (0.2)Total other comprehensive income (loss), net of tax (85.7) 18.2 50.0 Comprehensive income 493.7 490.1 335.6

OSHKOSH CORPORATION CONSOLIDATED BALANCE SHEETS

(In millions, except share and per share amounts)

		Septem	ber 30,	,
		2019		2018
Assets				
Current assets:				
Cash and cash equivalents	\$	448.4	\$	454.6
Receivables, net		1,082.3		1,286.2
Unbilled receivables, net		549.5		235.4
Inventories, net		1,249.2		1,227.7
Other current assets		78.9		66.0
Total current assets		3,408.3		3,269.9
Property, plant and equipment, net		573.6		481.1
Goodwill		995.7		1,007.9
Purchased intangible assets, net		432.3		469.4
Other long-term assets		156.4		65.9
Total assets	\$	5,566.3	\$	5,294.2
Liabilities and Shareholders' Equity				
Current liabilities:				
Revolving credit facility and current maturities of long-term debt	\$	_	\$	_
Accounts payable		795.5		776.9
Customer advances		382.0		444.9
Payroll-related obligations		183.6		192.5
Income taxes payable		73.5		23.8
Other current liabilities		307.3		252.0
Total current liabilities		1,741.9		1,690.1
Long-term debt, less current maturities		819.0		818.0
Other long-term liabilities		405.6		272.6
Commitments and contingencies				
Shareholders' equity:				
Preferred Stock (\$.01 par value; 2,000,000 shares authorized;				
none issued and outstanding)		_		_
Common Stock (\$.01 par value; 300,000,000 shares authorized; 75,101,465 shares issued)		0.7		0.7
Additional paid-in capital		808.5		814.8
Retained earnings		2,505.0		2,007.9
Accumulated other comprehensive loss		(201.6)		(106.8)
·				
Common Stock in treasury, at cost (7,114,349 and 2,730,707 shares, respectively)		(512.8) 2,599.8		(203.1)
Total shareholders' equity	Ċ		ċ	2,513.5
Total liabilities and shareholders' equity	\$	5,566.3	\$	5,294.2

OSHKOSH CORPORATION CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(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, 2016	\$ 0.9	\$ 782.3	\$ 2,177.0	\$ (175.0)	\$ (808.7)	\$ 1,976.5
Net income	_	_	285.6	_	_	285.6
Employee pension and postretirement benefits, net of tax of \$15.2	_	_	_	27.7	_	27.7
Currency translation adjustments	_	_	_	22.5	_	22.5
Cash dividends (\$0.84 per share)	_	_	(62.8)	_	_	(62.8)
Exercise of stock options	_	4.3	_	_	35.6	39.9
Stock-based compensation expense	_	22.4	_	_	_	22.4
Payment of stock-based restricted and performance shares	_	(7.0)	_	_	7.0	_
Shares tendered for taxes on stock-based compensation	_	_	_	_	(4.8)	(4.8)
Other	_	0.2	_	(0.2)	0.4	0.4
Balance at September 30, 2017	0.9	802.2	2,399.8	(125.0)	(770.5)	2,307.4
Net income	_	_	471.9			471.9
Employee pension and postretirement benefits, net of tax of \$10.6	_	_	_	35.3	_	35.3
Currency translation adjustments	_	_	_	(17.6)	_	(17.6)
Cash dividends (\$0.96 per share)	_	_	(71.2)		_	(71.2)
Repurchases of Common Stock	_	_		_	(249.3)	(249.3)
Exercise of stock options	_	(5.1)	_	_	21.7	16.6
Stock-based compensation expense	_	26.7	_	_	_	26.7
Payment of stock-based restricted and performance shares	_	(9.4)	_	_	9.4	_
Shares tendered for taxes on stock-based compensation	_	`-	_	_	(7.7)	(7.7)
Retirement of treasury stock	(0.2)	_	(792.6)	_	792.8	_
Other	` _	0.4	` _ `	0.5	0.5	1.4
Balance at September 30, 2018	0.7	814.8	2,007.9	(106.8)	(203.1)	2,513.5
Effect of adopting new Accounting Standards Updates (ASU):				, ,	, ,	
Revenue recognition (ASU 2014-09)	_	_	(60.4)	_	_	(60.4)
Tax accounting for intra-entity asset transfers (ASU 2016-16)	_	_	44.5	_	_	44.5
Tax impact of U.S. tax reform on Accumulated Other						
Comprehensive Income (ASU 2018-02)	_	_	9.1	(9.1)	_	_
Balance at October 1, 2018	0.7	814.8	2,001.1	(115.9)	(203.1)	2,497.6
Net income	_	_	579.4	_	_	579.4
Employee pension and postretirement benefits, net of tax of \$14.9	_	_	_	(49.4)	_	(49.4)
Currency translation adjustments	_	_	_	(36.3)	_	(36.3)
Cash dividends (\$1.08 per share)	_	_	(75.5)		_	(75.5)
Repurchases of Common Stock	_	_		_	(350.1)	(350.1)
Exercise of stock options	_	(10.4)	_	_	21.7	11.3
Stock-based compensation expense	_	29.0	_	_	_	29.0
Payment of stock-based restricted and performance shares	_	(24.6)	_	_	24.6	_
Shares tendered for taxes on stock-based compensation	_		_	_	(7.3)	(7.3)
Other	_	(0.3)	_	_	1.4	1.1
Balance at September 30, 2019	\$ 0.7	\$ 808.5	\$ 2,505.0	\$ (201.6)	\$ (512.8)	\$ 2,599.8

OSHKOSH CORPORATION CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions)

	Fiscal Year Ended Septembe					per 30,		
		2019		2018		2017		
Operating activities:								
Net income	\$	579.4	\$	471.9	\$	285.6		
Depreciation and amortization		115.2		120.5		130.3		
Stock-based compensation expense		29.0		26.7		22.4		
Deferred income taxes		10.4		(3.1)		7.8		
Loss (gain) on sale of assets		(3.3)		1.1		(6.6)		
Foreign currency transaction (gains) losses		0.8		1.4		1.6		
Debt extinguishment		_		10.3		_		
Other non-cash adjustments		0.3		2.3		0.1		
Changes in operating assets and liabilities:								
Receivables, net		173.2		(129.5)		(213.3)		
Unbilled receivables, net		(239.8)		(97.5)		(82.6)		
Inventories, net		(111.0)		(38.6)		(202.3)		
Other current assets		(5.8)		11.2		14.6		
Accounts payable		12.8		124.3		177.2		
Customer advances		(90.2)		(68.4)		41.5		
Payroll-related obligations		(7.6)		1.7		43.5		
Income taxes payable		36.2		26.2		(14.8)		
Other current liabilities		45.6		(33.9)		43.7		
Other long-term assets and liabilities		23.1		9.7		(2.2)		
Total changes in operating assets and liabilities		(163.5)		(194.8)		(194.7)		
Net cash provided by operating activities		568.3		436.3		246.5		
Investing activities:								
Additions to property, plant and equipment		(147.6)		(95.3)		(85.8)		
Additions to equipment held for rental		(26.6)		(4.8)		(27.4)		
Proceeds from sale of property, plant and equipment		3.1		5.7		0.8		
Proceeds from sale of equipment held for rental		12.0		5.8		49.5		
Other investing activities		6.1		(1.8)		(2.3)		
Net cash used by investing activities		(153.0)	'	(90.4)		(65.2)		
Financing activities:								
Proceeds from issuance of debt (original maturities greater than three months)		_		639.4		5.9		
Repayments of debt (original maturities greater than three months)		_		(653.8)		(23.0)		
Debt issuance costs		_		(12.9)		_		
Repurchases of Common Stock		(357.4)		(257.0)		(4.8)		
Dividends paid		(75.5)		(71.2)		(62.8)		
Proceeds from exercise of stock options		11.3		16.6		39.9		
Net cash used by financing activities	·	(421.6)		(338.9)		(44.8)		
Effect of exchange rate changes on cash		0.1		0.6		(11.4)		
Increase (decrease) in cash and cash equivalents		(6.2)		7.6		125.1		
Cash and cash equivalents at beginning of year		454.6		447.0		321.9		
Cash and cash equivalents at end of year	\$	448.4	\$		\$	447.0		
Supplemental disclosures:	<u> </u>		T		_			
Cash paid for interest	\$	53.6	\$	55.7	\$	57.1		
Cash paid for income taxes	Ş	117.6	Ų	100.3	ب	129.9		
Cash paid for income taxes		117.0		100.3		129.9		

1. Nature of Operations

Oshkosh Corporation and its subsidiaries (the "Company") are leading designers and manufacturers of a wide variety of specialty vehicles and vehicle bodies for the Americas and global markets. "Oshkosh" refers to Oshkosh Corporation, not including its subsidiaries. The Company sells its products into four principal vehicle markets — access equipment, defense, fire & emergency and commercial. The access equipment business is conducted through its wholly-owned subsidiary, JLG Industries, Inc. and its wholly-owned subsidiaries (JLG) and JerrDan Corporation (JerrDan). The Company's defense business is conducted principally through its wholly-owned subsidiary, Oshkosh Defense, LLC and its wholly-owned subsidiary (Oshkosh Defense). The Company's fire & emergency business is principally conducted through its wholly-owned subsidiaries Pierce Manufacturing Inc. (Pierce), Oshkosh Airport Products, LLC (Airport Products) and Kewaunee Fabrications, LLC (Kewaunee). The Company's commercial business is principally conducted through its wholly-owned subsidiaries, McNeilus Companies, Inc. (McNeilus), Concrete Equipment Company, Inc. and its wholly-owned subsidiary (CON-E-CO), London Machinery Inc. and its wholly-owned subsidiary (London), Iowa Mold Tooling Co., Inc. (IMT) and Oshkosh Commercial Products, LLC (Oshkosh Commercial).

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. 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 in exchange for the goods or services. See Note 3 of the Notes to Consolidated Financial Statements for information regarding the Company's revenue recognition practices

Shipping and Handling Fees and Costs — Revenue received from shipping and handling fees is reflected in net sales. Shipping and handling fee revenue was not significant for any period presented. Shipping and handling costs are included in cost of sales as incurred or at the time revenue is recognized for the related goods, whichever comes first.

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 \$99.0 million, \$99.3 million and \$98.0 million during fiscal 2019, 2018 and 2017, respectively. 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 \$24.9 million, \$21.1 million and \$23.0 million in fiscal 2019, 2018 and 2017, respectively.

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, \$5.6 million (including \$3.2 million of amortization related to early debt retirement) and \$3.0 million in fiscal 2019, 2018 and 2017, respectively.

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 or all 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 in the first step, 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 September 30, 2019 and 2018. See Notes 5, 14, 20 and 21 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 September 30, 2019 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 estimated losses is based on the Company's historical experience, existing economic conditions 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.

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.

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 and lease receivables 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 — Inventories are stated at the lower of cost or market. Cost has been determined using the last-in, first-out (LIFO) method for 84% and 82% of the Company's inventories at September 30, 2019 and 2018, respectively. For the remaining inventories, cost has been determined using the first-in, first-out (FIFO) method.

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 accelerated and straight-line 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 as of July 1 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 further analysis is performed to measure and recognize the amount of the impairment loss, if any. 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.

Impairment of Long-Lived Assets — Property, plant and equipment 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 further analysis is performed to measure and recognize the amount of the impairment loss, if any. 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 fire & emergency and commercial vehicles. Most of these advances bear interest at fixed rates that approximate the prime rate at the time of the advance. Advances also include any performance-based payments received from the DoD in excess of the value of related inventory.

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 and accrued product liability 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 gain of \$2.1 million in fiscal 2019, a net foreign currency transaction loss of \$3.8 million in fiscal 2018 and a net foreign currency transaction gain of \$0.2 million in fiscal 2017.

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 recorded in other comprehensive income, net of deferred income taxes. Changes in fair value of derivatives not qualifying as hedges are reported in income. 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 fiscal 2018 and 2017 financial statements to conform with the fiscal 2019 presentation. "Cost and profits not billed", which were previously presented in "Receivables, net", are now presented as "Unbilled receivables, net" within the Company's September 30, 2018 balance sheet to improve the comparability between the periods. Changes in "Unbilled receivables, net", which were previously presented within changes in "Receivables, net" within the Company's statements of cash flows for fiscal 2018 and 2017, are now presented as a separate line item to be consistent with the balance sheet presentation.

Recent Accounting Pronouncements — In May 2014, the Financial Accounting Standards Board (FASB) issued new revenue recognition guidance (Accounting Standards Codification (ASC) 606) to provide a single, comprehensive revenue recognition model for all contracts with customers, Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606). This guidance requires an entity to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard supersedes all existing U.S. GAAP guidance on revenue recognition and is expected to require the use of more judgment.

The Company adopted the new guidance on October 1, 2018 following the modified retrospective method of transition. The Company applied the new guidance to contracts that were not completed at the date of initial adoption, resulting in a reduction of retained earnings by \$60.4 million, after-tax, at that date. For contracts that were modified prior to October 1, 2018, the Company considered the aggregate impact of all modifications that occurred prior to the effective date of the standard for purposes of identifying performance obligations, determining transaction price and allocating transaction price to performance obligations. Prior period comparative information was not recast to reflect the impact of the new guidance and therefore continues to be reported under the accounting guidance in effect during those periods.

Under the new guidance, the majority of the Company's contracts with the U.S. government follow an over time model that uses the cost-to-cost method to measure performance. Previously the Company had recognized revenue from these contracts on the percentage-of-completion method using either the cost-to-cost or the units-complete method. In addition, the new guidance changes the definition of a contract, resulting in the Company no longer considering unexercised government options in the measurement of completion and profitability. The new guidance is expected to result in additional volatility in the Company's earnings based upon the date of receipt of contract orders.

In the fire & emergency segment, the point in time at which "control transfers" to the customer differs from when the Company no longer maintains "risk of loss", which under the new guidance delays the point in time at which the Company will recognize revenue on contracts for which the end user, rather than the Company's dealer, is the Company's customer. In the commercial segment, the Company builds certain units on chassis owned by the end customer. Revenue related to these arrangements moved from a "point in time" revenue recognition model to an "over time" model that is measured using the cost-to-cost method of percentage-of-completion as the Company is enhancing a customer asset. In addition, under the new guidance, the Company defers revenue, including the estimated profit, for service warranties instead of recording a liability for estimated costs.

See Note 3 of the Notes to Consolidated Financial Statements for additional information regarding the Company's revenue recognition method under the new revenue guidance.

The cumulative effect of initially applying the new revenue recognition guidance to the Company's Consolidated Financial Statements as of October 1, 2018 was as follows (in millions):

	ance as of tember 30, 2018	Ir Ad	Cumulative npact from lopting New Revenue Standard	salance as of October 1, 2018
Assets				
Receivables, net	\$ 1,286.2	\$	(13.5)	\$ 1,272.7
Unbilled receivables, net	235.4		74.3	309.7
Inventories, net	1,227.7		(75.9)	1,151.8
Other current assets	66.0		0.3	66.3
Total current assets	3,269.9		(14.8)	3,255.1
Other long-term assets	65.9		18.7	84.6
Total assets	5,294.2		3.9	5,298.1
Liabilities and Shareholders' Equity				
Customer advances	\$ 444.9	\$	27.2	\$ 472.1
Other current liabilities	252.0		6.4	258.4
Total current liabilities	1,690.1		33.6	1,723.7
Other long-term liabilities	272.6		30.7	303.3
Retained earnings	2,007.9		(60.4)	1,947.5
Total shareholders' equity	2,513.5		(60.4)	2,453.1
Total liabilities and shareholders' equity	5,294.2		3.9	5,298.1

The impact from adopting the new revenue recognition guidance on the Company's Consolidated Financial Statements as of and for the year ended September 30, 2019 was as follows (in millions):

Fiscal Year Ended September 30, 2019

		FISCAL I	ear ciiu	eu september	30, ZUJ	. J
	As	Reported	Ac	Previous counting cuidance		pact of New Revenue Recognition Standard
Consolidated Statement of Income						
Net sales	\$	8,382.0	\$	8,302.3	\$	79.7
Cost of sales		6,864.6		6,805.5		59.1
Gross income	\$	1,517.4	\$	1,496.8	\$	20.6
Operating income	\$	797.0	\$	776.4	\$	20.6
Income before income taxes and earnings of unconsolidated affiliates	\$	750.7	\$	730.1	\$	20.6
Provision for income taxes		171.3		166.5		4.8
Income before earnings of unconsolidated affiliates		579.4		563.6	-	15.8
Equity in earnings of unconsolidated affiliates		_		_		_
Net income	\$	579.4	\$	563.6	\$	15.8
Earnings per share:						
Basic Diluted	\$	8.30 8.21	\$	8.07 7.99	\$	0.23 0.22
	As	Reported	I Ad	mber 30, 2019 Previous ccounting Guidance		pact of New Revenue Recognition Standard
Consolidated Balance Sheet						
Assets						
						(0.1)
Receivables, net	\$	1,082.3	\$	1,088.4	\$	•
Unbilled receivables, net	\$	549.5	\$	457.1	\$	92.4
Unbilled receivables, net Inventories, net	\$	549.5 1,249.2	\$	457.1 1,336.0	\$	92.4 (86.8)
Unbilled receivables, net Inventories, net Other current assets	\$	549.5 1,249.2 78.9	\$	457.1 1,336.0 79.0	\$	92.4 (86.8) (0.1)
Unbilled receivables, net Inventories, net Other current assets Total current assets	\$	549.5 1,249.2 78.9 3,408.3	\$	457.1 1,336.0 79.0 3,408.9	\$	92.4 (86.8) (0.1) (0.6)
Unbilled receivables, net Inventories, net Other current assets Total current assets Other long-term assets	\$	549.5 1,249.2 78.9 3,408.3 156.4	\$	457.1 1,336.0 79.0 3,408.9 142.5	\$	92.4 (86.8) (0.1) (0.6)
Unbilled receivables, net Inventories, net Other current assets Total current assets	\$	549.5 1,249.2 78.9 3,408.3	\$	457.1 1,336.0 79.0 3,408.9	\$	92.4 (86.8) (0.1) (0.6)
Unbilled receivables, net Inventories, net Other current assets Total current assets Other long-term assets		549.5 1,249.2 78.9 3,408.3 156.4	\$	457.1 1,336.0 79.0 3,408.9 142.5	\$	92.4 (86.8) (0.1) (0.6)
Unbilled receivables, net Inventories, net Other current assets Total current assets Other long-term assets Total assets	\$	549.5 1,249.2 78.9 3,408.3 156.4	\$	457.1 1,336.0 79.0 3,408.9 142.5	\$	92.4 (86.8) (0.1) (0.6) 13.9 13.3
Unbilled receivables, net Inventories, net Other current assets Total current assets Other long-term assets Total assets Total assets Liabilities and Shareholders' Equity		549.5 1,249.2 78.9 3,408.3 156.4 5,566.3		457.1 1,336.0 79.0 3,408.9 142.5 5,553.0		92.4 (86.8) (0.1) (0.6) 13.9 13.3
Unbilled receivables, net Inventories, net Other current assets Total current assets Other long-term assets Total assets Liabilities and Shareholders' Equity Customer advances		549.5 1,249.2 78.9 3,408.3 156.4 5,566.3		457.1 1,336.0 79.0 3,408.9 142.5 5,553.0		92.4 (86.8) (0.1) (0.6) 13.9 13.3
Unbilled receivables, net Inventories, net Other current assets Total current assets Other long-term assets Total assets Liabilities and Shareholders' Equity Customer advances Other current liabilities		549.5 1,249.2 78.9 3,408.3 156.4 5,566.3 382.0 307.3		457.1 1,336.0 79.0 3,408.9 142.5 5,553.0 385.4 290.4		92.4 (86.8) (0.1) (0.6) 13.9 13.3 (3.4)
Unbilled receivables, net Inventories, net Other current assets Total current assets Other long-term assets Total assets Liabilities and Shareholders' Equity Customer advances Other current liabilities Total current liabilities Other long-term liabilities Retained earnings		549.5 1,249.2 78.9 3,408.3 156.4 5,566.3 382.0 307.3 1,741.9 405.6 2,505.0		457.1 1,336.0 79.0 3,408.9 142.5 5,553.0 385.4 290.4 1,728.4		92.4 (86.8) (0.1) (0.6) 13.9 13.3 (3.4) 16.9 13.5 44.4 (44.6)
Unbilled receivables, net Inventories, net Other current assets Total current assets Other long-term assets Total assets Liabilities and Shareholders' Equity Customer advances Other current liabilities Total current liabilities Other long-term liabilities Other long-term liabilities		549.5 1,249.2 78.9 3,408.3 156.4 5,566.3 382.0 307.3 1,741.9 405.6		457.1 1,336.0 79.0 3,408.9 142.5 5,553.0 385.4 290.4 1,728.4 361.2		(86.8) (0.1) (0.6) 13.9 13.3 (3.4) 16.9 13.5

In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740), Intra-Entity Transfers of Assets Other Than Inventory.* The standard requires that an entity recognize the income tax consequences of an intra-entity transfer of an asset when the transfer occurs as opposed to when the asset is transferred to an outside party. The standard does not apply to intra-entity transfers of inventory. The Company adopted ASU 2016-16 on October 1, 2018 following the modified retrospective approach through a cumulative effect adjustment, which resulted in an increase to retained earnings of \$44.5 million.

In March 2017, the FASB issued ASU 2017-07, Compensation - Retirement Benefits (Topic 715), Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. The standard requires that an entity report the service cost component of net periodic pension and postretirement cost in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The remaining components of net benefit costs are required to be presented in the income statement separately from the service component and outside a subtotal of income from operations. The amendment further allows only the service cost component of net periodic pension and postretirement costs to be eligible for capitalization, when applicable. The Company adopted ASU 2017-07 on October 1, 2018. The impact of this standard was a reclassification of \$2.5 million and \$7.3 million of other components of net periodic pension cost to "Miscellaneous, net" on the Consolidated Statement of Income for the years ended September 30, 2018 and 2017, respectively. The Company utilized a practical expedient included in the ASU which allowed the Company to use amounts previously disclosed in its Employee Benefit Plans footnote for the prior period as the estimation basis for applying the required retrospective presentation requirements.

In February 2018, the FASB issued ASU 2018-02, *Income Statement—Reporting Comprehensive Income (Topic 220), Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income.* The standard allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the U.S. Tax Cuts and Jobs Act enacted in the United States in December 2017 (the "Tax Reform Act"), thereby eliminating the resulting stranded tax effect. The Company adopted ASU 2018-02 on October 1, 2018. The Company increased retained earnings by \$9.1 million upon adoption of ASU 2018-02 to eliminate the tax effects stranded in accumulated other comprehensive income resulting from the Tax Reform Act.

Standards not yet adopted

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, and has since issued amendments to this standard, which requires lessees to reflect most leases on their balance sheet as lease liabilities with corresponding right-of-use assets, while leaving presentation of lease expense in the statement of income largely unchanged. The standard also eliminates the real-estate specific provisions that exist under current U.S. GAAP and modifies the classification criteria and accounting lessors must apply to sales-type and direct financing leases. Entities have the option to adopt the new guidance using a modified retrospective approach through a cumulative effect adjustment to retained earnings applied either to the beginning of the earliest period presented or the beginning of the period of adoption. In addition, the new guidance provides for certain practical expedients. The Company will adopt ASU 2016-02 and related amendments to the standard as of October 1, 2019 using a modified retrospective approach through a cumulative effect adjustment to retained earnings as of the beginning of the period of adoption.

The most significant effects of adoption relate to the recognition of right-of-use assets and lease liabilities for operating leases on the Company's balance sheet and providing new disclosures about the Company's leasing activities. The Company expects to record a right-of-use asset and lease liability of approximately \$200 million upon the initial adoption of the new leasing standard. The adoption of the new leasing standard will also impact the Company's processes and controls around leases, including an information system solution to support the Company's implementation and compliance with the requirements of the new standard.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments - Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments. The standard requires a change in the measurement approach for credit losses on financial assets measured on an amortized cost basis from an incurred loss method to an expected loss method, thereby eliminating the requirement that a credit loss be considered probable to impact the valuation of a financial asset measured on an amortized cost basis. The standard requires the measurement of expected credit losses to be based on relevant information about past events, including historical experience, current conditions, and a reasonable and supportable forecast that affects the collectability of the related financial asset. The Company will be required to adopt ASU 2016-13 as of October 1, 2020. Early

adoption is permitted. The Company is currently evaluating the impact of ASU 2016-13 on the Company's Consolidated Financial Statements.

In January 2017, the FASB issued ASU 2017-04, Intangibles - Goodwill and Other (Topic 350), Simplifying the Test for Goodwill Impairment. The standard simplifies the measurement of goodwill impairment by eliminating the requirement that an entity compute the implied fair value of goodwill based on the fair values of its assets and liabilities to measure impairment. Instead, goodwill impairment will be measured as the difference between the fair value of the reporting unit and the carrying value of the reporting unit. The standard also clarifies the treatment of the income tax effect of tax deductible goodwill when measuring goodwill impairment loss. The Company will be required to adopt ASU 2017-04 as of October 1, 2020. Early adoption is permitted. The Company is currently evaluating the impact of ASU 2017-04 on the Company's Consolidated Financial Statements.

3. Revenue Recognition

Through September 30, 2018, the Company recognized revenue in accordance with ASC 605, *Revenue Recognition*. Accordingly, revenue was recognized on equipment and parts sales when contract terms were met, collectability was reasonably assured and a product was shipped or risk of ownership had been transferred to and accepted by the customer. Revenue from service agreements was recognized as earned, when services had been rendered. Appropriate provisions were made for discounts, returns and sales allowances. Sales were recorded net of amounts invoiced for taxes imposed on the customer such as excise or value-added taxes.

Sales to the U.S. government of non-commercial products manufactured to the government's specifications were recognized under percentage-of-completion accounting using either the units-of-delivery method or cost-to-cost method to measure contract performance. Under the units-of-delivery method, the Company recorded sales as units were accepted by the DoD, generally based on unit sales values stated in the respective contracts. Costs of sales were based on actual costs incurred to produce the units delivered under the contract. Under the cost-to-cost method, sales and estimated margins were recognized as contract costs are incurred. The measurement method selected was generally determined based on the nature of the contract. The Company included amounts representing contract change orders, claims or other items in sales only when they were reliably estimated and realization was probable. Bid and proposal costs were expensed as incurred. The Company charged anticipated losses on contracts or programs in progress to earnings when identified.

Beginning October 1, 2018, the Company recognizes revenue in accordance with ASC 606. 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.

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, vehicle and after-market 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 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 15 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 net sales are derived through long-term contracts with the U.S. government to design, develop, manufacture or modify defense products. These contracts, which also include those under the U.S. Government-sponsored Foreign Military Sales (FMS) program, accounted for approximately 97% of defense segment revenue in fiscal 2019. 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. See Note 15 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 effect 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 to the customer continuously during the contract term and therefore revenue is recognized 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 continuous transfer of control determination as a result of the customized nature of its goods and services and contractual rights.

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 obligation. The Company recognizes changes in estimated sales or costs and the resulting profit or loss on a cumulative basis. Cumulative estimate-at-completion (EAC) 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. For contracts with only aftermarket parts performance obligations, revenue is recognized at the time the parts are physically committed to the order or based on shipping terms depending on whether the contracts contain a termination for convenience clause. For performance obligations consisting solely of services, revenue is recognized either by using the cost-to-cost method of percentage-of-completion method or as the Company has the right to bill the customer in instances that billing rights approximates timing of transfer of control to the customer.

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. Contract adjustments in the defense segment increased net sales, operating income, net income and diluted earnings per share by \$63.9 million, \$44.7 million, \$34.5 million

and \$0.49 per share, respectively, during fiscal 2019. Contract adjustments in the defense segment increased net sales, operating income, net income and diluted earnings per share by \$2.2 million, \$2.2 million, \$1.7 million and \$0.02 per share during fiscal 2018. Contract adjustments in the defense segment increased net sales, operating income, net income and diluted earnings per share by \$6.3 million, \$6.3 million, \$3.9 million and \$0.05 per share during fiscal 2017.

Disaggregation of Revenue

The table below presents consolidated net sales disaggregated by segment and timing of revenue recognition (in millions):

				- 1	Fiscal Year Ended	Sep	tember 30, 2019		
	Access Fire &							Corporate and intersegment	
	equipment		Defense		emergency		Commercial	eliminations	Total
Point in time	\$ 4,001.6	\$	7.4	\$	1,220.5	\$	591.7	\$ (20.1)	\$ 5,801.1
Over time	78.1		2,024.7		45.6		430.5	2.0	2,580.9
	\$ 4,079.7	\$	2,032.1	\$	1,266.1	\$	1,022.2	\$ (18.1)	\$ 8,382.0

See Note 22 of the Notes to Consolidated Financial Statements for further disaggregated sales information.

Contract Assets and Contract Liabilities

The Company is generally entitled to bill its customers upon satisfaction of its performance obligations, with the exception of its long-term contracts in the defense segment which typically allow for billing upon acceptance of the finished good, advance payments from customers primarily within the fire & emergency segment and extended warranties that are usually 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. 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 due on customer advances of \$14.5 million, \$18.1 million and \$18.8 million was recorded in "Interest expense" in the Consolidated Statements of Income for fiscal 2019, 2018 and 2017, respectively.

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 within "Customer advances", "Other current liabilities" or "Other long-term liabilities" in the Consolidated Balance Sheet. Total contract liabilities were \$512.5 million as of September 30, 2019, of which \$382.0 million, \$78.2 million and \$52.3 million was included in "Customer advances", "Other current liabilities" and "Other long-term liabilities", respectively. Total contract liabilities were \$594.4 million as of October 1, 2018, of which \$472.1 million, \$75.0 million and \$47.3 million was included in "Customer advances", "Other current liabilities" and "Other long-term liabilities", respectively. The Company reduces contract liabilities when revenue is recognized. The Company recognized \$530.9 million of revenue during fiscal 2019 that was recorded as a contract liability as of October 1, 2018.

In instances where the Company recognizes revenue prior to having an unconditional right to payment, the Company records a contract asset within "Unbilled receivables, net" in the Consolidated Balance Sheet. 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 contracts from customers during fiscal 2019. See Note 9 of the Notes to Consolidated Financial Statements for additional information on the Company's receivable balances.

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 disclosed above. 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):

	F	Fiscal Year Ended September 3				
		2019		2018		
Balance at beginning of period	\$	30.7	\$	30.8		
Adoption of ASC 606		35.7		_		
Deferred revenue for new service-type warranties		27.5		12.7		
Amortization of deferred revenue		(25.2)		(14.2)		
Changes in liability for pre-existing warranties, net		_		1.8		
Foreign currency translation		(0.5)		(0.4)		
Balance at end of period	\$	68.2	\$	30.7		

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

	September 30,						
	 2019		2018				
Other current liabilities	\$ 27.8	\$	12.4				
Other long-term liabilities	40.4		18.3				
	\$ 68.2	\$	30.7				

Remaining Performance Obligations

As of September 30, 2019, the Company had unsatisfied performance obligations for contracts with an original duration greater than one year totaling \$3.5 billion, of which \$2.9 billion is expected to be satisfied and revenue recognized in fiscal 2020, \$514.0 million is expected to be satisfied and revenue recognized in fiscal 2021 and \$69.7 million is expected to be satisfied and revenue recognized beyond fiscal 2021. The Company has elected the practical expedient to not disclose unsatisfied performance obligations with an original contract duration of one year or less.

Practical Expedients and Policy Elections

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 Statement 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.

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 the 2009 Stock Plan plans 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 September 30, 2019, the Company had reserved 6,838,960 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 September 30, 2019 was as follows:

Plan Category	Options or Vesting of Ex		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	2,063,209	\$	62.62	4,775,751
Equity compensation plans not approved by security holders	_		_	_
	2,063,209	\$	62.62	4,775,751

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

	Fiscal Year Ended September 30,							
		019	2018			2017		
Stock options	\$	6.9	\$	6.6	\$	7.5		
Stock awards (shares and units)		15.0		13.7		11.6		
Performance share awards		7.1		6.4		3.3		
Cash-settled stock appreciation rights		0.4		(0.2)		3.3		
Cash-settled restricted stock unit awards		0.6		0.4		0.5		
Total stock-based compensation cost		30.0		26.9		26.2		
Income tax benefit recognized for stock-based compensation		(4.9)		(5.8)		(9.6)		
Stock-based compensation cost, net of tax	\$	25.1	\$	21.1	\$	16.6		

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

	Fiscal Year Ended September 30,									
	20:	19		20:	18			2017		
	Weighted- Average Exercise Options Price		Weighted- Average Exercise Options Price			Options		/eighted- Average Exercise Price		
Outstanding, beginning of year	1,268,984	\$	57.03	1,531,691	\$	45.14	2,104,929	\$	39.55	
Granted	372,450		66.09	261,900		86.59	393,975		66.89	
Forfeited	(24,175)		72.88	(43,270)		66.49	(11,145)		52.54	
Expired	(8,721)		76.92	(1)		41.52	_		_	
Exercised	(280,148)		40.62	(481,336)		34.41	(956,068)		41.70	
Outstanding, end of year	1,328,390		62.62	1,268,984		57.03	1,531,691		45.14	
Exercisable, end of year	709,826		55.11	650,143		45.92	819,906		36.47	

Stock options outstanding and exercisable as of September 30, 2019 were as follows (in millions, except share and per share amounts):

Outstanding								Exercisable						
	Weighted						Weighted							
	Average		J				Average		Ū					
	Remaining Contractual		Average Exercise		Aggregate Intrinsic		Remaining Contractual		Average Exercise		Aggregate Intrinsic			
Options	Life (in years)		Price		Value	Options	Life (in years)		Price		Value			
429,411	2.6	\$	43.52	\$	13.9	429,411	2.6	\$	43.52	\$	13.9			
898,979	7.2		71.73		6.2	280,415	5.4		72.85		1.7			
1,328,390	5.7		62.62	\$	20.1	709,826	3.7		55.11	\$	15.6			
	429,411 898,979	Weighted Average Remaining Contractual Life (in years) 429,411 2.6 898,979 7.2	Weighted Average Remaining Contractual Uptions Life (in years) 429,411 898,979 7.2	Weighted Average Remaining Contractual Life (in years) 429,411 2.6 \$ 43.52 898,979 7.2 71.73	Weighted Average Weighted Remaining Average Contractual Exercise Uffe (in years) Price 429,411 2.6 \$ 43.52 \$ 898,979 7.2 71.73	Weighted Average Remaining Contractual Life (in years) 429,411 898,979 Weighted Average Aggregate Exercise Intrinsic Value 43.52 43.52 71.73 6.2	Weighted	Weighted Average Remaining Contractual Options Life (in years) Life (in years) Average Exercise Intrinsic Value Options Options Life (in years) 429,411 2.6 \$ 43.52 \$ 13.9 429,411 2.6 \$ 9.71.73 3.6.2 280,415 428,415 429,411 429,411 420,411	Weighted Average Remaining Contractual Exercise Intrinsic Value Options 429,411 2.6 \$ 43.52 \$ 13.9 429,411 2.6 \$ \$ 898,979 7.2 71.73 6.2 280,415 Weighted Average Remaining Contractual Life (in years) 43.52 \$ 13.9 429,411 2.6 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Weighted Average Remaining Contractual Life (in years) Price 429,411 Pylice Average Price Aggregate Intrinsic Value Options Life (in years) Price Value Options 429,411 Price Aggregate Intrinsic Contractual Exercise Price Value Options Life (in years) Price Price 43.52 Price 43.52 Price 43.52 Price Price 43.52 Price Price	Weighted Average Remaining Contractual Life (in years) Price 429,411 Page 1 Price Average Price Average Price Value Options Life (in years) Price Value Options 429,411 Price Average Contractual Exercise Price Value Price Value Options Life (in years) Price Price Average Exercise Exercise Price Price Average Exercise Exercise Price Price Average Exercise Fortion Price			

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 2019 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 September 30, 2019. This amount changes based on the fair market value of the Company's Common Stock.

The total intrinsic value of options exercised for fiscal 2019, 2018 and 2017 was \$10.2 million, \$23.2 million and \$24.0 million, respectively. The actual income tax benefit realized totaled \$2.4 million, \$6.3 million and \$8.8 million for those same periods.

As of September 30, 2019, total unrecognized compensation cost related to outstanding stock options was \$2.5 million, net of estimated forfeitures, which the Company expects to be recognized over a weighted-average period of 1.9 years.

The Company uses the Black-Scholes valuation model to value stock options utilizing the following weighted-average assumptions:

	Fiscal Year Ended September 30,							
Options Granted During	2019	2018	2017					
Assumptions:								
Expected term (in years)	5.4	5.4	5.1					
Expected volatility	33.40%	34.50%	37.30%					
Risk-free interest rate	2.87%	2.09%	1.79%					
Expected dividend yield	1.50%	1.15%	1.52%					

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 for the calendar year ended December 31, 2018. The weighted-average per share grant date fair values for stock option grants during fiscal 2019, 2018 and 2017 were \$20.00, \$26.84 and \$20.43, respectively.

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

	Fiscal Year Ended September 30,									
	20	19		20	18		20	2017		
	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 year	332,473	\$	69.15	352,159	\$	55.22	313,806	\$	42.93	
Granted	278,175		69.98	163,225		86.07	214,325		66.84	
Forfeited	(13,610)		71.17	(26,915)		65.66	(16,381)		51.67	
Vested	(185,528)		62.47	(155,996)		56.02	(159,591)		47.01	
Nonvested, end of year	411,510		72.66	332,473		69.15	352,159		55.22	

The total fair value of shares vested during fiscal 2019, 2018 and 2017 was \$12.3 million, \$13.2 million and \$11.2 million, respectively. The actual income tax benefit realized totaled \$2.1 million, \$3.0 million and \$4.1 million for those same periods.

As of September 30, 2019, total unrecognized compensation cost related to stock awards was \$10.3 million, net of estimated forfeitures, which the Company expects to be recognized over a weighted-average period of 2.1 years.

Performance Share Awards — A summary of the Company's performance share awards activity is as follows:

		Fiscal Year Ended September 30,									
	20	19		20	2018						
	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 year	98,375	\$	89.11	116,600	\$	60.71	103,550	\$	49.83		
Granted	73,950		74.70	57,625		97.79	49,800		79.01		
Forfeited	(1,600)		93.92	(13,977)		71.75	_		_		
Performance adjustments	31,768		71.43	57,914		47.50	36,750		54.84		
Vested	(77,743)		76.12	(119,787)		47.55	(73,500)		54.84		
Nonvested, end of year	124,750		84.10	98,375		89.11	116,600		60.71		

Performance share awards generally vest over a three-year service period following the grant date. Performance shares vest under two separate 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. 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 fiscal 2019, 2018 and 2017 were 126%, 200% and 200% of target levels, respectively. Awards based on ROIC were not granted until fiscal 2016; therefore, September 2018 was the first time this type of award vested. Actual payout for the ROIC performance share award vesting in fiscal 2019, 2018 were 200% and 191% of target levels. In October 2019, 76,868 shares of Common Stock were issued from treasury for unpaid performance shares that vested in fiscal 2019.

The total fair value of performance shares vested during fiscal 2019, 2018 and 2017 was \$5.8 million, \$7.6 million and \$6.5 million, respectively. The actual income tax benefit realized totaled \$1.4 million, \$2.1 million and \$2.4 million for the same periods.

As of September 30, 2019, the Company had \$8.4 million of unrecognized compensation expense related to performance share awards, which will be recognized over a weighted-average period of 1.8 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:

	Fiscal Year Ended September 30,								
Total Shareholder Return Performance Shares Granted During	2019	2018	2017						
Assumptions:									
Expected term (in years)	2.86	2.86	2.86						
Expected volatility	32.72%	32.27%	34.09%						
Risk-free interest rate	2.80%	1.84%	1.32%						

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 fiscal 2019, 2018 and 2017 was \$85.89, \$112.30 and \$96.47 per award, respectively.

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.

Cash-Settled Stock Appreciation Rights — In fiscal 2019, 2018 and 2017, the Company granted employees 18,250, 11,650 and 11,750 cash-settled SARs, respectively. 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 during fiscal 2019, 2018 and 2017 was \$0.6 million, \$3.8 million and \$2.9 million, respectively.

As of September 30, 2019, the Company had \$0.1 million of unrecognized compensation expense related to SAR awards, which will be recognized over a weighted-average period of 1.2 years.

Cash-Settled Restricted Stock Units — In fiscal 2019, 2018 and 2017 the Company granted employees 8,350, 8,125 and 7,125 cash-settled RSUs, respectively. 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 during fiscal 2019, 2018 and 2017 was \$0.4 million, \$0.4 million and \$0.5 million, respectively.

As of September 30, 2019, the Company had \$0.5 million of unrecognized compensation expense related to RSUs, which will be recognized over a weighted-average period of 1.2 years.

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. Effective December 31, 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. Effective October 1, 2016, the Oshkosh Defense hourly defined benefit pension plan was closed to new production employees.

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.

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 certain executive officers 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 September 30, 2019, the Trust held assets of \$21.4 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 \$1.6 million, \$2.0 million and \$2.0 million of expense under the Oshkosh defined contribution SERP in fiscal 2019, 2018 and 2017, respectively.

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 and postretirement benefit plans as of and for the fiscal years ended September 30, 2019 and 2018, were as follows (in millions):

	Pension Benefits			Postretirement Health and Other				
		2019		2018		2019		2018
Accumulated benefit obligation at September 30	\$	542.8	\$	452.6	\$	51.4	\$	46.6
Change in projected benefit obligation	-				-			
Benefit obligation at October 1	\$	455.8	\$	473.7	\$	46.6	\$	50.0
Service cost		9.1		10.5		3.1		3.7
Interest cost		18.7		17.9		1.9		1.8
Actuarial loss (gain)		77.4		(32.3)		1.4		(6.5)
Participant contributions		0.1		0.1		_		_
Plan amendments		0.2		_		_		(0.6)
Curtailments		1.2		_		_		_
Benefits paid		(14.1)		(13.4)		(1.6)		(1.8)
Currency translation adjustments		(1.9)		(0.7)				_
Benefit obligation at September 30	\$	546.5	\$	455.8	\$	51.4	\$	46.6
Change in plan assets								
Fair value of plan assets at October 1	\$	384.2	\$	367.8	\$	_	\$	_
Actual return on plan assets		33.9		25.0		_		_
Company contributions		8.8		8.8		1.6		1.8
Participant contributions		0.1		0.1		_		_
Expenses paid		(2.2)		(3.2)		_		_
Benefits paid		(14.1)		(13.4)		(1.6)		(1.8)
Currency translation adjustments		(1.8)		(0.9)		_		_
Fair value of plan assets at September 30	\$	408.9	\$	384.2	\$	_	\$	_
Funded status of plan - underfunded at September 30	\$	(137.6)	\$	(71.6)	\$	(51.4)	\$	(46.6)
Recognized in consolidated balance sheet at September 30								
Prepaid benefit (long-term asset)	\$	_	\$	4.3	\$	_	\$	_
Accrued benefit liability (current liability)		(1.8)		(1.9)		(1.2)		(1.2)
Accrued benefit liability (long-term liability)		(135.8)		(74.0)		(50.2)		(45.4)
	\$	(137.6)	\$	(71.6)	\$	(51.4)	\$	(46.6)
Recognized in accumulated other comprehensive income (loss) as of September								
30 (net of taxes)		(60.0)	<u> </u>	(42.5)	.	(4.0)		0.4
Net actuarial (loss) gain	\$	(68.9)	\$	(12.6)	\$	(1.9)	\$	0.4
Prior service (cost) benefit	\$	(7.0) (75.9)	\$	(6.5)	\$	6.5	\$	7.8 8.2
Weighted-average assumptions as of September 30								
Discount rate		3.17%		4.18%		3.10%		4.20%
Expected return on plan assets		5.49%		5.50%		n/a		n/a

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

		September 30,				
	2	019		2018		
Projected benefit obligation	\$	546.5	\$	430.3		
Accumulated benefit obligation		542.8		425.5		
Fair value of plan assets		408.9		354.4		

The components of net periodic benefit cost for fiscal years ended September 30 were as follows (in millions):

		_							tretirement		
	Pension Benefits						 Health and Other				
		2019		2018		2017	 2019		2018		2017
Components of net periodic benefit cost											
Service cost	\$	9.1	\$	10.5	\$	10.7	\$ 3.1	\$	3.7	\$	2.5
Interest cost		18.7		17.9		17.8	1.9		1.8		1.6
Expected return on plan assets		(19.9)		(20.1)		(18.2)	_		_		_
Amortization of prior service cost (benefit)		1.7		1.8		1.8	(1.5)		(0.9)		(0.9)
Curtailment/settlement		1.2		_		0.5	_		_		_
Amortization of net actuarial loss (gain)		0.2		1.9		4.5	(0.2)		0.1		0.2
Expenses paid		2.5		1.9		2.2	_		_		_
Net periodic benefit cost	\$	13.5	\$	13.9	\$	19.3	\$ 3.3	\$	4.7	\$	3.4
Other changes in plan assets and benefit obligations											
recognized in other comprehensive income											
Net actuarial loss (gain)	\$	63.3	\$	(35.9)	\$	(37.8)	\$ 1.4	\$	(6.5)	\$	0.5
Prior service cost (benefit)		0.2		_		_	_		(0.6)		_
Amortization of prior service benefit (cost)		(1.7)		(1.8)		(1.8)	1.5		0.9		0.9
Amortization of net actuarial (loss) gain		(0.2)		(1.9)		(4.5)	0.2		(0.1)		(0.2)
	\$	61.6	\$	(39.6)	\$	(44.1)	\$ 3.1	\$	(6.3)	\$	1.2
Weighted-average assumptions				-		•					
Discount rate		4.18%		3.85%		3.70%	4.20%		3.71%		3.47%
Expected return on plan assets		5.50%		5.93%		5.78%	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. Net investment fees in fiscal 2018 and 2017 of \$1.3 million and \$0.3 million, respectively, which were previously included in "Expenses paid", are now reported net within "Expected return on plan assets" to better reflect the costs of achieving those returns.

Amounts expected to be recognized in pension and supplemental employee retirement plan net periodic benefit costs during fiscal 2020 included in "Accumulated other comprehensive loss" in the Consolidated Balance Sheet at September 30, 2019 are prior service costs of \$1.6 million (\$1.2 million net of tax) and unrecognized net actuarial losses of \$3.3 million (\$2.5 million net of tax).

The assumed health care cost trend rate used in measuring the accumulated postretirement benefit obligation for the Company was 6.5% in fiscal 2019, declining to 5.0% in fiscal 2025. If the health care cost trend rate was increased by 100 basis points, the accumulated postretirement benefit obligation at September 30, 2019 would increase by \$13.2 million and the net periodic postretirement benefit cost for fiscal 2020 would increase by \$1.9 million. A corresponding decrease of 100 basis points would decrease the accumulated postretirement benefit obligation at September 30, 2019 by \$9.2 million and the net periodic postretirement benefit cost for fiscal 2020 would decrease by \$1.3 million.

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 September 30, 2019 by asset category, were as follows:

	Target %	Actual
Asset Category		
Fixed income	40% - 50%	48%
Large-cap equity	20% - 30%	24%
Mid-cap equity	5% - 15%	10%
Small-cap equity	5% - 10%	8%
Global equity	5% - 10%	6%
Other	0% - 10%	4%
		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 a number of different investment managers. Beginning in fiscal 2016, the Company implemented a dynamic liability driven investment strategy for those pension plans with frozen benefits. The objective of this strategy is to more closely align the pension plan assets with the pension plan liabilities in terms of how both respond to changes in interest rates. Plan assets will be allocated to two investment categories, including a category containing high quality fixed income securities and another category comprised of traditional securities and alternative asset classes. Assets are managed externally according to guidelines approved by the Company. Over time, the Company intends to reduce assets allocated to the return seeking category and correspondingly increase assets allocated to the high quality fixed income category to align assets more closely with the pension plan obligations.

The plans' expected return on assets is based on management's and the Committee's expectations of long-term average rates of return to be achieved by the plans' investments. These expectations are based on the plans' historical returns and expected returns for the asset classes in which the plans are invested.

Cianificant

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

	fo	oted Prices r Identical Assets (Level 1)	Other Observable Inputs (Level 2)	ı	Significant Jnobservable Inputs (Level 3)		Total
September 30, 2019							
Common stocks							
U.S. companies (a)	\$	75.9	\$ 6.9	\$	_	\$	82.8
International companies (b)		_	13.3		_		13.3
Mutual funds (a)		72.7	_		_		72.7
Government and agency bonds (c)		_	7.0		_		7.0
Corporate bonds and notes (d)		_	7.5		_		7.5
Money market funds (e)		11.7	_		_		11.7
Other		_	 _		0.7		0.7
	\$	160.3	\$ 34.7	\$	0.7	_	195.7
Investments measured at net asset value (NAV) (f)						•	213.2
						\$	408.9
September 30, 2018							
Common stocks							
U.S. companies (a)	\$	77.0	\$ 6.6	\$	_	\$	83.6
International companies (b)		_	13.1		_		13.1
Mutual funds (a)		76.6	_		_		76.6
Government and agency bonds (c)		_	6.1		_		6.1
Corporate bonds and notes (d)		_	6.9		_		6.9
Money market funds (e)		7.9	_		_		7.9
	\$	161.5	\$ 32.7	\$	_		194.2
Investments measured at net asset value (NAV) (f)			 				190.0
						\$	384.2
						_	

- (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 funds 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 calculate fair value based on NAV per share practical expedient as of September 30, 2019 (in millions):

	_		Unfunded		Redemption Frequency	Redemption Notice
	Fa	ir Value		Commitments	(if Currently Eligible)	Period (1)
Common collective trust	\$	213.2	\$		N/A	15 days

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

The following table sets forth additional disclosures for the fair value measurement of the fair value of pension plans assets that calculate fair value based on NAV per share practical expedient as of September 30, 2018 (in millions):

	 Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period (1)
Common collective trust	\$ 190.0	\$ _	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 policy is to fund the pension plans in amounts that comply with contribution limits imposed by law. The Company expects to make contributions of approximately \$10.0 million to its pension plans in fiscal 2020.

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

Fiscal Year Ending		Pension	Benefi	Postretirement Health		
September 30,	Qualified		Non-Qualified			and Other
2020	\$	14.3	\$	1.8	\$	1.2
2021		15.8		1.8		1.8
2022		17.3		1.8		2.5
2023		18.9		1.9		2.8
2024		20.3		1.9		3.4
2025-2029		119.9		10.1		20.4

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, 2022. 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 December 31, 2018, the plan-certified zone status as defined by the Pension Protection Act of 2006 was Red and accordingly the plan has implemented a financial improvement plan or a rehabilitation plan. The Company's contributions to the multi-employer plan did not exceed 5% of the total plan contributions for fiscal 2019, 2018 or 2017. The Company made contributions to the plan of \$1.4 million, \$1.3 million and \$1.2 million in fiscal 2019, 2018 and 2017, respectively.

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 \$43.3 million, \$42.9 million and \$37.6 million in fiscal 2019, 2018 and 2017, respectively.

6. Leases

Certain administrative and production facilities and equipment are leased under long-term agreements. Most leases contain renewal options for varying periods, and certain leases include options to purchase the leased property during or at the end of the lease term. Leases generally require the Company to pay for insurance, taxes and maintenance of the property. Leased capital assets included in net property, plant and equipment were immaterial at September 30, 2019 and 2018.

Other facilities and equipment are leased under arrangements that are accounted for as noncancelable operating leases. Total rental expense for property, plant and equipment under noncancelable operating leases was \$51.2 million, \$47.1 million and \$48.0 million in fiscal 2019, 2018 and 2017, respectively.

Future minimum lease payments due under operating leases at September 30, 2019 were as follows: 2020 - \$34.0 million; 2021 - \$26.7 million; 2022 - \$15.9 million; 2023 - \$11.3 million; 2024 - \$7.1 million; and thereafter - \$11.7 million.

7. Income Taxes

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

	-	2	019		2018		2017
Domestic		\$	697.9	\$	514.9	\$	392.7
Foreign			52.8		79.7		18.6
		\$	750.7	\$	594.6	\$	411.3

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

		Fiscal Year Ended September 30,						
	_	2019		2018		2017		
Allocated to Income Before Earnings of Unconsolidated Affiliates					_			
Current:								
Federal	\$	140.9	\$	92.0	\$	104.9		
Foreign		(0.2)		22.0		13.5		
State		20.2		12.9		1.0		
Total current		160.9		126.9		119.4		
Deferred:	_							
Federal		2.1		5.4		6.6		
Foreign		7.3		(5.5)		4.2		
State		1.0		(3.0)		(3.0)		
Total deferred	_	10.4		(3.1)		7.8		
	\$	171.3	\$	123.8	\$	127.2		
Allocated to Other Comprehensive Income (Loss)	_							
Deferred federal, state and foreign	<u>\$</u>	(14.9)	\$	11.0	\$	15.1		

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

	Fiscal Ye	Fiscal Year Ended September 30,				
	2019	2018	2017			
Effective Rate Reconciliation						
U.S. federal tax rate	21.0%	24.5%	35.0%			
State income taxes, net	2.5%	2.1%	1.3%			
Foreign taxes	-0.2%	1.0%	0.6%			
Valuation allowance	-0.1%	-1.4%	0.5%			
Domestic tax credits	-1.0%	-2.1%	-4.2%			
Manufacturing deduction	-0.1%	-1.6%	-2.8%			
Foreign-derived intangible income deduction	-1.0%	-%	-%			
Global intangible low-taxed income, net	0.1%	-%	-%			
Share-based compensation	0.1%	-0.7%	-1.3%			
Remeasurement of deferred taxes - U.S. Tax Reform	- %	-5.1%	-%			
Mandatory repatriation tax - U.S. Tax Reform	0.7%	3.3%	-%			
Other, net	0.8%	0.8%	1.8%			
	22.8%	20.8%	30.9%			

During fiscal 2019, the Company recorded net discrete tax charges of \$1.9 million (0.3% of pre-tax income), which included charges related to new tax legislation in the United States, offset in part by benefits related to excess tax deductions from share-based compensation, provision to return adjustments for federal, state, and foreign jurisdictions and tax reserve releases due to expiration of statutes of limitations and other resolutions. During fiscal 2018, the Company recorded discrete tax benefits of \$21.7 million (3.6% of pre-tax income), which included benefits related to excess tax deductions from share-based compensation, provision to return adjustments for federal, state, and foreign jurisdictions, tax reserve releases due to expiration of statutes of limitations and other resolutions, and new tax legislations in the United States. During fiscal 2017, the Company recorded discrete tax benefits of \$20.1 million (4.9% of pre-tax income), which included benefits related to excess tax deductions from share-based compensation, provision to return adjustments for federal, state, and foreign jurisdictions, tax reserve releases due to expiration of statutes of limitations and other resolutions, and releases of valuation allowances on deferred tax assets for federal capital loss and state net operating loss carryforwards.

On December 22, 2017, the Tax Reform Act was signed into law. The Tax Reform Act significantly revised the U.S. corporate income tax regime by, among other things, lowering the U.S. corporate tax rate from 35% to 21% effective January 1, 2018, while also repealing the deduction for domestic production activities, implementing a territorial tax system, imposing a repatriation tax on deemed repatriated earnings of foreign subsidiaries (the "Transition Tax"), and creating new taxes on certain foreign-sourced earnings.

The Company recorded a tax benefit of \$30.2 million during fiscal 2018 as a result of the remeasurement of deferred tax assets and liabilities required as a result of the Tax Reform Act. During fiscal 2018, the Company also recorded net tax expense of \$19.5 million with respect to the Transition Tax. During the first quarter of fiscal 2019, the Company finalized the amounts due under the Transition Tax and recorded an additional tax expense of \$7.0 million with respect to the Transition Tax.

The Tax Reform Act also contained a provision that tied revenue recognition under U.S. GAAP to income reporting for tax purposes. Although the new provision accelerated the recognition of realized revenue, it did not change the definition of when revenue is realized for federal tax purposes. The Company has analyzed the new provision and concluded that revenue on U.S. defense contracts is not realized for federal tax purposes until customer acceptance. While the Company is expected to file its fiscal 2019 federal tax return on this basis, the sustainment of this position is uncertain. If not sustained the recognition of revenue for federal tax purposes would be accelerated. The legislation provided no such acceleration of the related cost of sales, and accordingly the Company would temporarily be taxed on the revenue and not the gross income of the contract. The Company has recognized a deferred tax asset and income tax payable of \$61.0 million related to this matter.

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

	 September 30,				
	 2019	2018			
Deferred tax assets:					
Other long-term liabilities	\$ 126.0 \$	20.5			
Losses and credits	27.9	33.5			
Accrued warranty	14.5	22.1			
Other current liabilities	15.0	17.0			
Payroll-related obligations	23.4	22.7			
Other	 9.4	7.9			
Gross deferred tax assets	 216.2	123.7			
Less valuation allowance	(1.1)	(2.1)			
Deferred tax assets, net	215.1	121.6			
Deferred tax liabilities:					
Intangible assets	(40.0)	(89.1)			
Property, plant and equipment	(50.5)	(41.4)			
Inventories	(14.1)	(12.5)			
Other	(2.6)	(2.4)			
Deferred tax liabilities	(107.2)	(145.4)			
Deferred tax assets, net of deferred tax liabilities	\$ 107.9 \$	(23.8)			

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

	 September 30,				
	2019	2018			
Long-term net deferred tax asset	\$ 107.9	\$	9.7		
Long-term net deferred tax liability	_		(33.5)		
Net deferred tax asset (liability)	\$ 107.9	\$	(23.8)		

The increase in deferred income tax assets related to "Other long-term liabilities" was due to the acceleration of revenue, but not costs of sales, under the Tax Reform Act, the deferral of defense service revenue over four years for tax purposes, and increases in the Company defined benefit pension and postretirement liabilities. The decrease in deferred income tax liabilities related to "Intangible assets" related to the adoption of ASU 2016-16 on October 1, 2018. See Note 2 of the Notes to Consolidated Financial Statements for more information on recently adopted accounting pronouncements.

As of September 30, 2019, the Company had \$17.4 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 seven years to an unlimited period. In addition, the Company had \$184.2 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 \$23.9 million, which are subject to expiration in 2026 to 2034. Deferred tax assets for foreign net operating loss carryforwards, state net operating loss carryforwards and state credit carryforwards were \$4.7 million, \$6.9 million and \$15.9 million, respectively. 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 state deferred tax assets of \$1.1 million as of September 30, 2019.

At September 30, 2019, the Company had undistributed earnings of \$380.5 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 \$25.1 million, including the impact of the temporary regulations discussed below.

On June 18, 2019, the U.S. Treasury Department and the U.S. Internal Revenue Service released temporary regulations related to the Tax Reform Act (the "temporary tax regulations") related to the foreign dividends received deduction and global intangible low-taxed income. The temporary 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 temporary 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 which is included in the \$25.1 million disclosed withholding tax above.

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

	Fiscal Year Ended September 30,							
		2019		2018		2017		
Balance at beginning of year	\$	33.7	\$	37.2	\$	37.4		
Additions for tax positions related to current year		63.3		4.2		1.2		
Additions for tax positions related to prior years		5.4		5.4		6.0		
Reductions for tax positions related to prior years		(8.0)		(7.1)		(5.5)		
Settlements		(0.9)		(4.1)		_		
Lapse of statutes of limitations		(3.4)		(1.9)		(1.9)		
Balance at end of year	\$	97.3	\$	33.7	\$	37.2		

As of September 30, 2019, net unrecognized tax benefits of \$22.0 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. During fiscal 2019, 2018 and 2017, the Company recognized expense of \$0.1 million, income of \$3.7 million and income of \$0.4 million related to interest and penalties, respectively. At September 30, 2019 and 2018, the Company had accruals for the payment of interest and penalties of \$4.4 million and \$5.0 million, respectively. During fiscal 2020, it is reasonably possible that federal, state and foreign tax audit resolutions could reduce unrecognized tax benefits by approximately \$8.1 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. During fiscal 2016, the U.S. Internal Revenue Service completed its audit of the Company for the taxable years ended September 30, 2012 and 2013. As of September 30, 2019, tax years open for examination under applicable statutes were as follows:

Tax Jurisdiction	Open Tax Years
Australia	2013 - 2019
Belgium	2017 - 2019
Brazil	2014 - 2019
Canada	2015 - 2019
China	2014 - 2019
Mexico	2015 - 2019
Romania	2013 - 2019
Netherlands	2014 - 2019
United Kingdom	2017 - 2019
United States (federal general)	2016 - 2019
United States (federal limited scope)	2010 - 2016
United States (state and local)	2006 - 2019

8. Earnings Per Share

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

	Fiscal	Fiscal Year Ended September 30,						
	2019	2019 2018						
Basic weighted-average common shares outstanding	69,819,980	74,001,582	74,674,115					
Dilutive stock options and other equity-based compensation awards	738,255	980,417	1,115,930					
Diluted weighted-average common shares outstanding	70,558,235	74,981,999	75,790,045					

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:

2019 2018 2017
506,207 253,238 381,350

9. Receivables

Receivables consisted of the following (in millions):

	Sept	September 30,				
	2019		2018			
Trade receivables - U.S. government	\$ 61.	\$ \$	156.3			
Trade receivables - other	997.	7	1,089.4			
Finance receivables	13.	L	11.7			
Notes receivable	0.	1	1.4			
Other receivables	32.)	48.6			
	1,105.)	1,307.4			
Less allowance for doubtful accounts	(11.	3)	(9.9)			
	\$ 1,093.	7 \$	1,297.5			

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

	 September 30,				
	2019		2018		
Current receivables	\$ 1,082.3	\$	1,286.2		
Long-term receivables	11.4		11.3		
	\$ 1,093.7	\$	1,297.5		

Finance and notes receivable accrual status consisted of the following (in millions):

	September 30,									
		Finance Receivables					Notes Receivable			
		2019		2018		2019		2018		
Receivables on nonaccrual status	\$	2.3	\$	10.2	\$	_	\$	_		
Receivables past due 90 days or more and still accruing		_		_		_		_		
Receivables subject to general reserves		10.8		1.5		_		_		
Allowance for doubtful accounts		(0.2)		_		_		_		
Receivables subject to specific reserves		2.3		10.2		0.4		1.4		
Allowance for doubtful accounts		(2.0)		(2.8)		(0.4)		_		

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 historical experience. 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 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.

Notes Receivable: Notes receivable include amounts related to refinancing of trade accounts and finance receivables. The Company continually evaluates the creditworthiness of its customers and establishes reserves where the Company believes collectability is no longer reasonably assured. Notes receivable are written down if management determines that the specific borrower does not have the ability to repay the loan in full. Certain notes receivable are collateralized by a security interest in the underlying assets and/or other assets owned by the debtor. 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.

During the second quarter of fiscal 2018, the Company received \$19.6 million from a customer that had previously been accounted for under the cost recovery method of accounting and on non-accrual status. The payment resulted in the recognition of \$11.5 million of margin, the reversal of \$2.4 million of bad debt expense and the recognition of \$6.6 million of interest income in fiscal 2018.

Quality of Finance and Notes Receivable: The Company does not accrue interest income on finance and notes receivable in circumstances where the Company believes collectability is no longer reasonably assured. Any cash payments received on nonaccrual finance and notes receivable 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.

Receivables subject to specific reserves also include loans that the Company has modified in troubled debt restructurings as a concession to customers experiencing financial difficulty. To minimize the economic loss, the Company may modify certain finance and notes receivable. Modifications generally consist of restructured payment terms and time-frames in which no payments are required. Losses on troubled debt restructurings were not significant during fiscal 2019, 2018 or 2017, respectively.

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

	Fiscal Year Ended September 30, 2019							
		Finance Notes Receivables Receivable			0	de and ther eivables		Total
Allowance for doubtful accounts at beginning of year	\$	2.8	\$	_	\$	7.1	\$	9.9
Provision for doubtful accounts, net of recoveries		(0.6)		0.4		2.0		1.8
Charge-off of accounts		_		_		(0.4)		(0.4)
Foreign currency translation		_		_		_		_
Allowance for doubtful accounts at end of year	\$	2.2	\$	0.4	\$	8.7	\$	11.3

Fiscal Year Ended September 30, 2018							
		-		C	ther		Total
\$	1.5	\$	10.0	\$	6.8	\$	18.3
	1.3		(8.2)		0.9		(6.0)
	_		(1.7)		(0.5)		(2.2)
	_		(0.1)		(0.1)		(0.2)
\$	2.8	\$	_	\$	7.1	\$	9.9
		Finance Receivables \$ 1.5 1.3	Finance Receivables Receivables 1.5 \$ 1.3	Finance Receivables Notes Receivable \$ 1.5 \$ 10.0 1.3 (8.2) — (1.7) — (0.1)	Finance Notes Receivables Receivable \$ 1.5 \$ 10.0 \$ 1.3 (8.2) - (1.7) - (0.1)	Finance Receivables Notes Receivable Trade and Other Receivables \$ 1.5 \$ 10.0 \$ 6.8 1.3 (8.2) 0.9 — (1.7) (0.5) — (0.1) (0.1)	Finance Receivables Notes Receivable Trade and Other Receivables \$ 1.5 \$ 10.0 \$ 6.8 \$ 1.3 (8.2) 0.9 0.9 — (1.7) (0.5) (0.1)

10. Inventories

Inventories consisted of the following (in millions):

	September 30,				
	2019			2018	
Raw materials	\$	676.0	\$	639.2	
Partially finished products		244.2		354.3	
Finished products		433.0		330.2	
Inventories at FIFO cost		1,353.2		1,323.7	
Excess of FIFO cost over LIFO cost		(104.0)		(96.0)	
	\$	1,249.2	\$	1,227.7	

Due to the adoption of ASC 606, certain contracts in the defense and commercial segments are now recognized on the cost-to-cost method of percentage-of-completion. "Partially finished products" under these contracts are now recognized as "Unbilled receivables, net" on the Company's Consolidated Balance Sheets.

11. Property, Plant and Equipment

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

		September 30,				
	2019			2018		
Land and land improvements	\$	55.8	\$	54.2		
Buildings		325.8		297.6		
Machinery and equipment		701.0		673.0		
Software and related costs		181.2		164.4		
Equipment on operating lease to others		39.5		22.1		
Construction in progress		57.6		11.4		
		1,360.9		1,222.7		
Less accumulated depreciation		(787.3)		(741.6)		
	\$	573.6	\$	481.1		

Depreciation expense was \$76.7 million, \$79.8 million and \$81.5 million in fiscal 2019, 2018 and 2017, respectively. 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 at September 30, 2019 and 2018 was \$31.3 million and \$17.2 million, respectively.

12. Goodwill and Purchased Intangible Assets

As of July 1, 2019, 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 in the fourth quarter of fiscal 2019, the Company used a weighted-average cost of capital, depending on the reporting unit, of 9.5% to 13.0% (10.5% to 13.5% at July 1, 2018) and a terminal growth rate of 3.0% (3.0% at July 1, 2018). 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.

At July 1, 2019, approximately 89% 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 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. Based on the Company's annual impairment review, the Company concluded that there was no impairment of goodwill or indefinite-lived intangible assets. Changes in estimates or the application of alternative assumptions could have produced significantly different results.

The following table presents changes in goodwill during fiscal 2019 and 2018 (in millions):

	ccess ipment	е	Fire & mergency	Coi	mmercial	Total
Net goodwill at September 30, 2017	\$ 885.9	\$	106.1	\$	21.0	\$ 1,013.0
Foreign currency translation	(5.0)		_		(0.1)	(5.1)
Net goodwill at September 30, 2018	 880.9		106.1		20.9	 1,007.9
Foreign currency translation	(12.1)		_		(0.1)	(12.2)
Net goodwill at September 30, 2019	\$ 868.8	\$	106.1	\$	20.8	\$ 995.7

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

	September 30, 2019					September 30, 2018					
		Ac	cumulated						Accumulated		
	Gross	In	npairment		Net		Gross		Impairment		Net
Access equipment	\$ 1,800.9	\$	(932.1)	\$	868.8	\$	1,813.0	\$	(932.1)	\$	880.9
Fire & emergency	108.1		(2.0)		106.1		108.1		(2.0)		106.1
Commercial	196.7		(175.9)		20.8		196.8		(175.9)		20.9
	\$ 2,105.7	\$	(1,110.0)	\$	995.7	\$	2,117.9	\$	(1,110.0)	\$	1,007.9

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

	September 30, 2019									
	Weighted- Average Life		Gross		cumulated nortization		Net			
Amortizable intangible assets:										
Distribution network	39.1	\$	55.4	\$	(32.3)	\$	23.1			
Technology-related	11.9		104.7		(102.6)		2.1			
Customer relationships	12.8		554.8		(536.8)		18.0			
Other	16.1		16.3		(14.9)		1.4			
	14.7		731.2		(686.6)		44.6			
Non-amortizable trade names			387.7		_		387.7			
		\$	1,118.9	\$	(686.6)	\$	432.3			

September 30, 2018 Weighted-**Average** Accumulated Life **Amortization** Gross Net Amortizable intangible assets: Distribution network 39.1 \$ 55.4 \$ (30.9)\$ 24.5 Technology-related 11.9 104.7 (101.8)2.9 Customer relationships 555.0 12.8 (502.3)52.7 Other 16.2 16.4 (14.8)1.6 14.7 731.5 (649.8)81.7 Non-amortizable trade names 387.7 387.7 1,119.2 (649.8)469.4

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 \$22.5 million at September 30, 2019). 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 September 30, 2019 are as follows: 2020 - \$11.0 million; 2021 - \$5.3 million; 2022 - \$4.9 million; 2023 - \$3.5 million and 2024 - \$1.7 million.

13. Other Long-Term Assets

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

	Septem	ber 30,			
	 2019		2018		
Rabbi trust, less current portion	\$ 20.0	\$	20.9		
Customer finance receivables	7.2		7.6		
Deferred income taxes, net (See Note 7 of Notes to Consolidated Financial Statements)	107.9		9.7		
Investments in unconsolidated affiliates	11.0		12.9		
Other	10.7		16.5		
	 156.8	'	67.6		
Less allowance for doubtful receivables	(0.4)		(1.7)		
	\$ 156.4	\$	65.9		

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.

14. Credit Agreements

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

	 September 30, 2019						
	Principal	Debt Issuance Costs			Debt, Net		
Senior Term Loan	\$ 275.0	\$	(0.6)	\$	274.4		
5.375% Senior notes due March 2025	250.0		(2.0)		248.0		
4.600% Senior notes due May 2028	 300.0		(3.4)		296.6		
	\$ 825.0	\$	(6.0)	\$	819.0		

	September 30, 2018								
		Principal	Debt Issuance Costs			Debt, Net			
Senior Term Loan	\$	275.0	\$	(0.8)	\$	274.2			
5.375% Senior notes due March 2025		250.0		(2.4)		247.6			
4.600% Senior notes due May 2028		300.0		(3.8)		296.2			
	\$	825.0	\$	(7.0)	\$	818.0			

On April 3, 2018, the Company entered into a Second Amended and Restated Credit Agreement with various lenders (the "Credit Agreement"). The Credit Agreement provides for (i) an unsecured revolving credit facility (the "Revolving Credit Facility") that matures in April 2023 with an initial maximum aggregate amount of availability of \$850 million and (ii) an unsecured \$325 million term loan (the "Term Loan") due in quarterly principal installments of \$4.1 million commencing September 30, 2019 with a balloon payment of \$264.1 million due at maturity in April 2023. During fiscal 2018, the Company prepaid all required quarterly principal installments on the Term Loan through June 2022. The Company recognized \$0.6 million of debt extinguishment expense in fiscal 2018 as a result of the amendment, including acceleration of \$0.2 million of debt issuance costs previously capitalized and \$0.4 million of third-party fees. In addition, \$2.9 million of new debt issuance costs were capitalized and are being amortized over the term of the Credit Agreement.

At September 30, 2019, outstanding letters of credit of \$63.7 million reduced the available capacity under the Revolving Credit Facility to \$786.3 million.

Under the Credit Agreement, the Company is obligated to pay (i) an unused commitment fee ranging from 0.125% to 0.275% per annum of the average daily unused portion of the aggregate revolving credit commitments under the Credit Agreement and (ii) a fee ranging from 0.563% to 1.75% 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 at a variable rate equal to (i) LIBOR plus a specified margin, which may be adjusted upward or downward depending on whether certain criteria are satisfied, or (ii) for dollar-denominated loans only, the base rate (which is the highest of (a) the administrative agent's prime rate, (b) the federal funds rate plus 0.50% or (c) the sum of 1% plus one-month LIBOR) plus a specified margin, which may be adjusted upward or downward depending on whether certain criteria are satisfied. At September 30, 2019, the interest spread on the Revolving Credit Facility and Term Loan was 125 basis points. The weighted-average interest rate on borrowings outstanding under the Term Loan at September 30, 2019 was 3.51%.

The Credit Agreement contains various restrictions and covenants, including requirements that the Company maintain certain financial ratios at prescribed levels and restrictions, subject to certain exceptions, on the ability of the Company and certain of its subsidiaries to consolidate or merge, create liens, incur additional indebtedness, dispose of assets, consummate acquisitions and make investments in joint ventures and foreign subsidiaries.

The Credit Agreement contains the following financial covenants:

- Leverage Ratio: A maximum leverage ratio (defined as, with certain adjustments, the ratio of the Company's consolidated indebtedness to consolidated net income 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.
- Interest Coverage Ratio: A minimum interest coverage ratio (defined as, with certain adjustments, the ratio of the Company's consolidated EBITDA to the Company's consolidated cash interest expense) as of the last day of any fiscal quarter of 2.50 to 1.00.

With certain exceptions, the Credit Agreement limits the ability of the Company to pay dividends and other distributions, including repurchases of shares of its Common Stock. However, so long as no event of default exists under the Credit Agreement or would result from such payment, the Company may pay dividends and other distributions after April 3, 2018 in an aggregate amount not exceeding the sum of:

- i. \$1.46 billion;
- ii. 50% of the consolidated net income of the Company and its subsidiaries (or if such consolidated net income is a deficit, minus 100% of such deficit), accrued on a cumulative basis during the period beginning on April 3, 2018 and ending on the last day of the fiscal quarter immediately preceding the date of the applicable proposed dividend or distribution; and
- iii. 100% of the aggregate net proceeds received by the Company subsequent to April 3, 2018 either as a contribution to its common equity capital or from the issuance and sale of its Common Stock.

The Company was in compliance with the financial covenants contained in the Credit Agreement as of September 30, 2019.

In March 2015, the Company issued \$250.0 million of 5.375% unsecured senior notes due March 1, 2025 (the "2025 Senior Notes"). The proceeds of the note issuance were used to repay existing outstanding notes of the Company. On May 17, 2018, the Company issued \$300.0 million of 4.600% unsecured senior notes due May 15, 2028 (the "2028 Senior Notes"). The Company used the net proceeds from the sale of the 2028 Senior Notes to repay certain outstanding notes of the Company and to pre-pay \$49.2 million of quarterly principal installment payments under the Term Loan. The Company recognized \$9.7 million of debt extinguishment expense, included in "Interest Expense," associated with the 2028 Senior Notes transaction in fiscal 2018, comprised of unamortized debt issuance costs of \$3.0 million and the call premium on the 2022 Senior Notes of \$6.7 million. In addition, \$2.9 million of debt issuance costs were capitalized and are being amortized over the term of the 2028 Senior Notes. The 2025 Senior Notes and the 2028 Senior Notes were issued pursuant to separate indentures (the "Indentures") between the Company and a trustee. The Indentures contain customary affirmative and negative covenants. The Company has the option to redeem the 2025 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 market rate of the Company's debt. At September 30, 2019, the fair value of the 2025 Senior Notes and the 2028 Senior Notes was estimated to be \$259 million (\$257 million at September 30, 2018) and \$322 million (\$299 million at September 30, 2018), respectively. The fair value of the Term Loan approximated book value at both September 30, 2019 and 2018. See Note 21 of the Notes to Consolidated Financial Statements for the definition of a Level 2 input.

15. 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 recorded were \$54.9 million, \$57.0 million and \$60.4 million in fiscal 2019, 2018 and 2017, respectively.

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):

	Fi	iscal Year Ende	d Septemb	eptember 30,	
		2019		2018	
Balance at beginning of year	\$	75.3	\$	68.0	
Adoption of ASC 606		(14.4)		_	
Warranty provisions		55.5		56.6	
Settlements made		(50.2)		(49.8)	
Changes in liability for pre-existing warranties, net		(0.8)		0.6	
Foreign currency translation		(0.3)		(0.1)	
Balance at end of year	\$	65.1	\$	75.3	

Due to the adoption of ASC 606, the Company determined that certain warranties previously classified as assurance-type warranties are service-type warranties. The liabilities associated with service-type warranties are disclosed in Note 3 of the Notes to Consolidated Financial Statements.

16. 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 September 30, 2019 the Company guaranteed an aggregate of \$748.9 million in indebtedness of customers. The Company estimated that its maximum loss exposure under these contracts at September 30, 2019 was \$136.4 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 September 30, 2019 the Company guaranteed to support an aggregate of \$101.9 million of customer equipment value. The Company estimated that its maximum loss exposure under these contracts at September 30, 2019 was \$10.3 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 guarantee liability were as follows (in millions):

	Fi	iscal Year Ende	d Septembe	eptember 30,		
	- 2	2019	2	018		
Balance at beginning of year	\$	10.4	\$	9.1		
Provision for new credit guarantees		9.9		5.1		
Changes for pre-existing guarantees, net		(0.5)		(0.9)		
Amortization of previous guarantees		(3.8)		(2.7)		
Foreign currency translation		(0.2)		(0.2)		
Balance at end of year	\$	15.8	\$	10.4		

17. 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. At September 30, 2019 and 2018, the estimated net liabilities for product and general liability claims totaled \$36.2 million and \$36.0 million, respectively. 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 \$552.2 million and \$599.2 million at September 30, 2019 and 2018, respectively. Open standby letters of credit issued by the Company's banks in favor of third parties totaled \$63.7 million and \$91.1 million at September 30, 2019 and 2018, respectively.

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 September 30, 2019, approximately 25% 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):

	Fisca	l Year	Ended September	er 30,		
	2019			2017		
DoD	\$ 2,006.9	\$	1,648.4	\$	1,314.6	
Foreign military sales	27.7		28.0		32.1	
Total DoD sales	\$ 2,034.6	\$	1,676.4	\$	1,346.7	

No other customer represented more than 10% of sales for fiscal 2019, 2018 or 2017.

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.

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 was one of several bidders on a large, multi-year military truck solicitation for the Canadian government. The Company's bid was not selected, and the Company subsequently submitted a legal challenge of that conclusion. In May 2016, the Canadian International Trade Tribunal (the "Tribunal") ruled in the Company's favor in connection with that challenge. In December 2017, the Tribunal issued its Order and Reasons (the "Order") outlining the compensation to which the Company is entitled as a result of the challenge. Under the Order, the Tribunal recommended that the Company be awarded a fixed payment for lost profits of approximately \$25.3 million Canadian dollars plus additional compensation on any potential future option exercises if and when exercised by Canada. In August 2018, the Company reached a settlement with the Canadian government. The Company recorded a \$19.0 million U.S. dollar reduction of selling, general and administrative expenses in fiscal 2018 in connection with the settlement.

The Company recognized a \$6.6 million gain during fiscal 2018 upon receipt of proceeds for a claim under its business interruption insurance. The claim was primarily for loss profits due to an accident that occurred at one of the commercial segment's facilities in January 2017. The gain has been recognized as a reduction of cost of sales.

18. Shareholders' Equity

In August 2015, the Company's Board of Directors approved a stock repurchase authorization for which there was as of May 7, 2019 a remaining authority to repurchase 1,362,821 shares of Common Stock. On May 7, 2019, the Company's Board of Directors increased the Company's Common Stock repurchase authorization by 8,637,179 shares to 10,000,000 shares as of that date. The Company repurchased 4,866,532 shares of its Common Stock under this authorization during the fiscal year ended September 30, 2019 at a cost of \$350.1 million. The Company repurchased 3.3 million shares of Common Stock under this authorization during the fiscal year ended September 30, 2018 at a cost of \$249.3 million. The Company did not repurchase any shares under this authorization during the fiscal year ended September 30, 2017. The Company has remaining authority to repurchase 8,010,181 shares of Common Stock as of September 30, 2019. The Company is restricted by its Credit Agreement from repurchasing shares in certain situations. See Note 14 of the Notes to Consolidated Financial Statements for information regarding these restrictions.

19. Accumulated Other Comprehensive Income (Loss)

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

	Employee Pension			
	and	Cumulative	Derivative	Accumulated Other
	Postretirement	Translation	Instruments,	Comprehensive
	Benefits, Net of Tax	Adjustments	Net of Tax	Income (Loss)
Balance at September 30, 2016	\$ (73.9)	\$ (101.1)	\$ -	\$ (175.0)
Other comprehensive income (loss) before reclassifications	23.7	22.5	(0.2)	46.0
Amounts reclassified from accumulated other				
comprehensive income (loss)	4.0			4.0
Net current period other comprehensive income (loss)	27.7	22.5	(0.2)	50.0
Balance at September 30, 2017	(46.2)	(78.6)	(0.2)	(125.0)
Other comprehensive income (loss) before reclassifications	33.1	(17.6)	0.6	16.1
Amounts reclassified from accumulated other				
comprehensive income (loss)	2.2		(0.1)	2.1
Net current period other comprehensive income (loss)	35.3	(17.6)	0.5	18.2
Balance at September 30, 2018	(10.9)	(96.2)	0.3	(106.8)
Tax impact of U.S. tax reform on Accumulated Other				
Comprehensive Income (ASU 2018-02)	(9.1)	_		(9.1)
Balance at October 1, 2018	(20.0)	(96.2)	0.3	(115.9)
Other comprehensive income (loss) before reclassifications	(49.5)	(36.3)	_	(85.8)
Amounts reclassified from accumulated other				
comprehensive income (loss)	0.1			0.1
Net current period other comprehensive income (loss)	(49.4)	(36.3)		(85.7)
Balance at September 30, 2019	\$ (69.4)	\$ (132.5)	\$ 0.3	\$ (201.6)

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	Fiscal Year Ended September 30,								
	income (expense)		2019		2018		2017			
Amortization of employee pension and postretirement benefits items										
Prior service costs	Miscellaneous, net	\$	0.2	\$	0.9	\$	0.9			
Actuarial (gains) losses	Miscellaneous, net		_		2.0		4.7			
Curtailment/settlement	Miscellaneous, net		_		_		0.5			
Total before tax			0.2		2.9		6.1			
Tax benefit			(0.1)		(0.7)		(2.1)			
Net of tax		\$	0.1	\$	2.2	\$	4.0			

20. 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 certain 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 September 30, 2019, the total notional U.S. dollar equivalent of outstanding forward foreign exchange contracts designated as hedges in accordance with ASC Topic 815 was \$14.8 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 under twelve months.

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 September 30, 2019, the U.S. dollar equivalent of these outstanding forward foreign exchange contracts totaled \$59.0 million in notional amounts covering a variety of foreign currency exposures.

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

		September 30, 2019				September 30, 2018					
	Other	Other		Other		r	Oth	er			
	Current	Assets	Current	Liabilities	Current	Assets	Current	Liabilities			
Cash flow hedges:											
Foreign exchange contracts	\$	0.4	\$	_	\$	0.4	\$	_			
Not designated as hedging instruments:											
Foreign exchange contracts		0.4		0.4		0.4		0.2			
	\$	0.8	\$	0.4	\$	0.8	\$	0.2			
			<u> </u>								
		90									

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

		Fiscal Year Ended September 30,											
	Classification of Gains (Losses)	2	2019		2018		2017						
Cash flow hedges:					_								
Foreign exchange contracts	Net Sales	\$	_	\$	_	\$	(0.1)						
Foreign exchange contracts	Cost of sales		1.3		(0.5)		(0.1)						
Foreign exchange contracts	Miscellaneous, net		_		_		(0.1)						
Not designated as hedging instruments:													
Foreign exchange contracts	Miscellaneous, net		(1.7)		(2.4)		3.5						
Interest rate contracts	Miscellaneous, net		_		(0.7)		0.2						
		\$	(0.4)	\$	(3.6)	\$	3.4						

21. 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.

There were no transfers of assets between levels during fiscal 2019 or 2018.

Loval 1

Lovel 2

Lovel 2

Total

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

	 revel 1	LEVEI 2	LEVEI 3	IOtal
September 30, 2019				
Assets:				
SERP plan assets (a)	\$ 21.4	\$ –	\$ _	\$ 21.4
Foreign currency exchange derivatives (b)	_	0.8	_	0.8
Liabilities:				
Foreign currency exchange derivatives (b)	\$ _	\$ 0.4	\$ —	\$ 0.4
	Level 1	Level 2	Level 3	Total
Sentember 30, 2018	 			

	Level 1	Level 2	Level 3	Total
September 30, 2018				
Assets:				
SERP plan assets (a) \$	22.1	\$ _	\$ _	\$ 22.1
Foreign currency exchange derivatives (b)	_	0.8	_	0.8
Liabilities:				
Foreign currency exchange derivatives (b) \$		\$ 0.2	\$ -	\$ 0.2

- (a) Represents investments in a rabbi trust for the Company's non-qualified 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) Based on observable market transactions of forward currency prices.

See Notes 5 and 14 of the Notes to Consolidated Financial Statements for fair value information related to pension assets 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 11 of the Notes to Consolidated Financial Statements for impairments of long-lived assets and Note 12 of the Notes to Consolidated Financial Statements for impairment valuation analysis of intangible 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.

22. Business Segment Information

The Company is organized into four reportable segments based on the internal organization used by the President and 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. Oshkosh Defense designs and manufactures tactical wheeled vehicles and supply parts and services for the U.S. military and for other militaries around the world. Sales to the DoD accounted for 97%, 90% and 71% of the segment's sales for fiscal 2019, 2018 and 2017, respectively.

Fire & emergency: This segment includes Pierce, Airport Products 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, CON-E-CO, London, IMT and Oshkosh Commercial. McNeilus, CON-E-CO, London and Oshkosh Commercial design, manufacture, market and distribute concrete mixers, portable concrete batch plants and vehicle and vehicle body components. McNeilus and London also design, manufacture, market and distribute refuse collection 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):

							Fiscal Yea	r Ende	d Septeml	oer 3	iO,					
		2	019			2018								2	017	
	cternal stomers		ter- ment	Net Sales		External Customers		Inter- segment		Net Sales		External Customers		Inter- segment		Net Sales
Access equipment																
Aerial work platforms	\$ 1,944.4	\$	_	\$	1,944.4	\$	2,017.2	\$	_	\$	2,017.2	\$	1,629.6	\$	_	\$ 1,629.6
Telehandlers	1,254.9		_		1,254.9		948.9		_		948.9		661.8		_	661.8
Other	880.4		_		880.4		810.7				810.7		735.0		_	735.0
Total access equipment	4,079.7		_		4,079.7		3,776.8		_		3,776.8		3,026.4		_	3,026.4
Defense	2,030.3		1.8		2,032.1		1,827.3		1.6		1,828.9		1,818.6		1.5	1,820.1
Fire & emergency	1,249.8		16.3		1,266.1		1,053.6		16.1		1,069.7		1,015.4		15.5	1,030.9
Commercial																
Concrete placement	439.9		_		439.9		491.8		_		491.8		474.0		_	474.0
Refuse collection	451.9		_		451.9		438.3		_		438.3		391.1		_	391.1
Other	128.3		2.1		130.4		116.7		7.9		124.6		99.3		5.9	105.2
Total commercial	1,020.1		2.1		1,022.2		1,046.8		7.9		1,054.7		964.4		5.9	970.3
Corporate and intersegment eliminations	2.1		(20.2)		(18.1)		1.0		(25.6)		(24.6)		4.8		(22.9)	(18.1)
Consolidated	\$ 8,382.0	\$	_	\$	8,382.0	\$	7,705.5	\$	_	\$	7,705.5	\$	6,829.6	\$	_	\$ 6,829.6

		Fiscal Year Ended September 30,									
		As adjusted									
		2019		2018		2017					
Operating income (loss):											
Access equipment (a)	\$	502.6	\$	387.5	\$	259.6					
Defense (b)		203.3		225.4		211.4					
Fire & emergency		176.5		137.6		107.2					
Commercial (c)		66.8		67.5		43.8					
Corporate		(152.2)		(162.0)		(151.7)					
Consolidated	_	797.0		656.0		470.3					
Interest expense, net of interest income (d)		(47.6)		(55.6)		(54.9)					
Miscellaneous other (expense) income		1.3		(5.8)		(4.1)					
Income before income taxes and earnings of unconsolidated affiliates	Ś	750.7	Ś	594.6	Ś	411.3					

⁽a) Fiscal 2018 results include \$4.7 million of restructuring costs and \$24.8 million of operating expenses related to restructuring plans. Fiscal 2017 results include \$35.8 million of restructuring costs and \$9.4 million of operating expenses related to restructuring plans.

(d) Fiscal 2018 results include \$9.9 million in debt extinguishment costs.

	Fiscal Year Ended September 30,							
		2019	2018			2017		
Depreciation and amortization:								
Access equipment	\$	58.2	\$	61.1	\$	72.1		
Defense		17.3		15.2		14.5		
Fire & emergency		9.5		9.5		9.4		
Commercial		12.4		12.9		12.7		
Corporate		17.8		21.8		21.6		
Consolidated	\$	115.2	\$	120.5	\$	130.3		
Capital expenditures:								
Access equipment (a)	\$	61.4	\$	34.2	\$	51.4		
Defense		31.4		29.1		31.9		
Fire & emergency		12.8		12.8		7.2		
Commercial (a)		18.1		12.0		10.9		
Corporate (b)		50.5		12.0		11.8		
Consolidated	\$	174.2	\$	100.1	\$	113.2		

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

⁽b) Fiscal 2018 results include a \$19.0 million gain for a litigation settlement. See Note 17 of the Notes to Consolidated Financial Statements for additional details regarding the settlement.

⁽c) Fiscal 2018 results include \$5.4 million of restructuring costs, a business interruption insurance gain of \$6.6 million and a loss on the sale of a small product line of \$1.4 million.

⁽b) Capital expenditures include capital spending for the construction of the Company's new global headquarters.

	Sep	ember 30,
	2019	2018
Identifiable assets:		
Access equipment:		
U.S.	\$ 2,317.	2 \$ 2,207.2
Europe, Africa and Middle East	403.	4 406.6
Rest of the world	252.	6 215.2
Total access equipment	2,973.	2,829.0
Defense:		
U.S.	883.	0 824.2
Rest of the world	6.	7 5.1
Total defense	889.	7 829.3
Fire & emergency - U.S.	587.	9 564.9
Commercial:		
U.S.	383.	6 364.3
Rest of the world	48.	9 45.4
Total commercial	432.	5 409.7
Corporate:		
U.S. (a)	597.	548.6
Rest of the world (b)	85.	4 112.7
Total corporate	683.	0 661.3
Consolidated	\$ 5,566.	3 \$ 5,294.2

⁽a) Primarily includes cash and short-term investments and the Company's new global headquarters.

⁽b) Primarily includes the corporate-led shared manufacturing facility in Mexico that supports multiple operating segments.

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

	Fiscal Year Ended September 30, 2019											
		Access equipment Defense				Fire & nergency	Coi	mmercial	Elim	ninations		Total
Net sales:												
North America	\$	3,147.9	\$	1,946.7	\$	1,142.3	\$	997.8	\$	(18.1)	\$	7,216.6
Europe, Africa and Middle East		548.6		84.0		27.7		3.9		_		664.2
Rest of the World		383.2		1.4		96.1		20.5		_		501.2
Consolidated	\$	4,079.7	\$	2,032.1	\$	1,266.1	\$	1,022.2	\$	(18.1)	\$	8,382.0

	 Fiscal Year Ended September 30, 2018										
	Access Juipment		Defense	е	Fire & mergency	Commercial		Eliminations			Total
Net sales:											
North America	\$ 2,849.9	\$	1,612.9	\$	1,006.8	\$	1,044.6	\$	(24.6)	\$	6,489.6
Europe, Africa and Middle East	630.2		215.0		4.7		1.9		_		851.8
Rest of the World	296.7		1.0		58.2		8.2		_		364.1
Consolidated	\$ 3,776.8	\$	1,828.9	\$	1,069.7	\$	1,054.7	\$	(24.6)	\$	7,705.5

	Fiscal Year Ended September 30, 2017											
		Access uipment		Defense	er	Fire & mergency	Cor	mmercial	Elin	ninations		Total
Net sales:											'	
North America	\$	2,238.3	\$	1,234.1	\$	883.9	\$	946.2	\$	(18.1)	\$	5,284.4
Europe, Africa and Middle East		539.1		582.8		23.2		1.8		_		1,146.9
Rest of the World		249.0		3.2		123.8		22.3		_		398.3
Consolidated	\$	3,026.4	\$	1,820.1	\$	1,030.9	\$	970.3	\$	(18.1)	\$	6,829.6

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

Common Stock per share dividends

		Fiscal Year Ended September 30, 2019											
		4th Quarter		3rd Quarter		2nd Quarter	1st Quarter (a)						
Net sales	·	\$ 2,195.7	\$	2,392.7	\$	1,990.2	\$	1,803.4					
Gross income		397.3		433.9		357.9		328.3					
Operating income		203.1		257.8		175.6		160.5					
Net income		150.0		191.9		128.5		109.0					
Earnings per share:													
Basic		\$ 2.20	\$	2.74	\$	1.84	\$	1.53					
Diluted		\$ 217	ς	2 72	ς	1 82	\$	1 51					

0.27

0.27

\$

⁽a) The first guarter of fiscal 2019 was impacted by tax expense related to tax reform in the U.S. of \$7.0 million.

	Fiscal Year Ended September 30, 2018 (as adjusted)											
	4th	Quarter (a)	arter (a) 3rd Quarter (b)			nd Quarter (c)	1	Lst Quarter (d)				
Net sales	\$	2,057.0	\$	2,175.8	\$	1,886.4	\$	1,586.3				
Gross income		375.9		403.7		336.0		243.0				
Operating income		201.9		223.2		156.4		74.5				
Net income		151.3		153.4		110.8		56.4				
Earnings per share:												
Basic	\$	2.08	\$	2.08	\$	1.49	\$	0.75				
Diluted	\$	2.05	\$	2.05	\$	1.47	\$	0.74				
Common Stock per share dividends	\$	0.24	\$	0.24	\$	0.24	\$	0.24				

⁽a) The fourth quarter of fiscal 2018 was impacted by restructuring-related charges of \$2.5 million (\$2.1 million after-tax) in the access equipment and commercial segments, a gain of \$19.0 million (\$15.4 million after-tax) for a litigation settlement in the defense segment, business interruption insurance proceeds of \$6.6 million (\$4.9 million after-tax) in the commercial segment, a loss on the sale of a small product line of \$1.4 million (\$1.0 million after-tax) in the commercial segment and a tax benefit related to tax reform in the U.S. of \$2.0 million.

⁽b) The third quarter of fiscal 2018 was impacted by restructuring-related charges of \$6.6 million (\$5.0 million after-tax) in the access equipment segment, debt extinguishment costs of \$9.9 million (\$7.7 million after-tax) and a tax benefit related to tax reform in the U.S. of \$2.2 million.

⁽c) The second quarter of fiscal 2018 was impacted by restructuring-related charges of \$7.0 million (\$5.8 million after-tax) in the access equipment and commercial segments.

⁽d) The first quarter of fiscal 2018 was impacted by restructuring-related charges of \$18.8 million (\$14.2 million after-tax) in the access equipment and commercial segments and a tax benefit related to tax reform in the U.S. of \$6.5 million.

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 September 30, 2019. 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 September 30, 2019 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 September 30, 2019, 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 September 30, 2019, 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 that occurred during the quarter ended September 30, 2019 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.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information to be included under the captions "Proposal 1: Elections of Directors Board of Director Nominees - Committees," "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 2020 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 2020 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 2020 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 September 30, 2019.

	Number of Securities to be Issued Upon Exercise of Outstanding Options or Vesting of Share	Exe	thted-Average rcise Price of	Number of Securities Remaining Available for Future Issuance Under Equity	
Plan Category	Awards(1)	Outstanding Options		Compensation Plans	
Equity compensation plans approved by security holders	2,063,209	\$	62.62	4,775,751	
Equity compensation plans not approved by security holders			_		
	2,063,209	\$	62.62	4,775,751	

⁽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 — Human Resources Committee" and "Governance of the Company — Policies and Procedures Regarding Related Person Transactions" in the Company's definitive proxy statement for the 2020 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 the Independent Registered Public Accounting Firm — Report of the Audit Committee" in the Company's definitive proxy statement for the 2020 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 SCHEDULE

(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 September 30, 2019, are contained in Item 8:

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

Consolidated Statements of Income for the years ended September 30, 2019, 2018 and 2017

Consolidated Statements of Comprehensive Income for the years ended September 30, 2019, 2018 and 2017

Consolidated Balance Sheets at September 30, 2019 and 2018

Consolidated Statements of Shareholders' Equity for the years ended September 30, 2019, 2018 and 2017

Consolidated Statements of Cash Flows for the years ended September 30, 2019, 2018 and 2017

Notes to Consolidated Financial Statements

Financial Statement Schedule:

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 September 13, 2016 (incorporated by reference to the Exhibit 3.1 to the Company's Current Report on Form 8-K dated September 13, 2016 (File No. 1-31371)).
- 4.1 Second Amended and Restated Credit Agreement, dated April 3, 2018, 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 April 9, 2018 (File No. 1-31371)).
- 4.2 Indenture, dated March 2, 2015, by and among Oshkosh Corporation, the Guarantors party thereto and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated March 2, 2015 (File No. 1-31371)).
- 4.3 First Supplemental Indenture, dated as of April 3, 2018, among Oshkosh Corporation and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.2 the Company's Current Report on Form 8-K dated April 9, 2018 (File No. 1-31371)).
- 4.4 Indenture, dated as of May 17, 2018, among Oshkosh Corporation, Oshkosh Corporation and Wells Fargo Bank, National Association, as trustee (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)).
- 4.6 Supplemental Indenture, dated May 17, 2018, by and among Oshkosh Corporation and Wells Fargo Bank, National Association, as trustee (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)).

- 4.7 Description of Registrants Securities.
- 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 David M. Sagehorn (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011 (File No. 1-31371)).*
- Form of Key Executive Employment and Severance Agreement between Oshkosh Corporation and each of John J. Bryant, Ignacio A. Cortina, James W. Johnson, Bradley M. Nelson, Frank R. Nerenhausen, Tina R. Schoner, Robert H. Sims, Anupam Khare and John C. Pfeifer (each of the persons identified has signed this form or a form substantially similar) (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the guarter ended March 31, 2011 (File No. 1-31371)).*
- 10.4 Summary of Cash Compensation for Non-Employee Directors (incorporated by reference to Exhibit 10.15 to the Company's Annual Report on Form 10-K for the year ended September 30, 2012 (File No. 1-31371)).*
- 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 guarter ended March 31, 2008 (File No. 1-31371)).*
- 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 guarter ended March 31, 2012 (File No. 1-31371)).*
- 10.7 Framework for Awards of Performance Shares based on Total Shareholder Return under the Oshkosh Corporation 2009 Incentive Stock and Awards Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, dated September 18, 2009 (File No. 1-31371)).*
- 10.8 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)).*
- 10.9 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)).*
- 10.10 Form of Oshkosh Corporation 2009 Incentive Stock and Awards Plan Restricted Stock Award for awards granted on or after September 19, 2011 (incorporated by reference to Exhibit 10.29 to the Company's Annual Report on Form 10-K for the year ended September 30, 2011 (File No. 1-31371)).*
- 10.11 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 guarter ended December 31, 2009 (File No. 1-31371)).*
- 10.12 Form of Oshkosh Corporation 2009 Incentive Stock and Awards Plan Restricted Stock Unit Award Agreement (Stock Settled on Retirement) (incorporated by reference to Exhibit 10.26 to the Company's Annual Report on Form 10-K for the year ended September 30, 2013 (File No. 1-31371)).*
- 10.13 Form of Oshkosh Corporation 2009 Incentive Stock and Awards Plan Restricted Stock Unit Award Agreement (Stock Settled on Vesting Retirement) (incorporated by reference to Exhibit 10.27 to the Company's Annual Report on Form 10-K for the year ended September 30, 2013 (File No. 1-31371)).*

- 10.14 Form of Oshkosh Corporation 2009 Incentive Stock and Awards Plan Restricted Stock Unit Award Agreement (Stock Settled on Vesting General) (incorporated by reference to Exhibit 10.28 to the Company's Annual Report on Form 10-K for the year ended September 30, 2013 (File No. 1-31371)).*
- 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)).*
- 10.16 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)).*
- 10.17 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 guarter ended June 30, 2014 (File No. 1-31371)).*
- 10.18 Form of Severance Agreement between Oshkosh Corporation and Wilson R. Jones (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the guarter ended March 31, 2016 (File No. 1-31371)).*
- 10.19 Form of Key Executive Employment Agreement between Oshkosh Corporation and Wilson R. Jones (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 (File No. 1-31371)).*
- 10.20 Framework for Awards of Performance Shares based on Return on Invested Capital under the Oshkosh Corporation 2009 Incentive Stock and Awards Plan (incorporated by reference to Exhibit 10.31 to the Company's Annual Report on Form 10-K for the year ended September 30, 2016 (File No. 1-31371)).*
- 10.21 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)).*
- 10.22 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)).*
- 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 10.28 to the Company's Annual Report on Form 10-K for the year ended September 30, 2017 (File No. 1-31371)).*
- 10.24 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)).*
- 10.25 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)).*
- 10.26 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)).*
- 10.27 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)).*

10.28	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)).*
11	Computation of per share earnings (contained in Note 8 of "Notes to Consolidated Financial Statements" of the Company's Annual Report on Form 10-K for the year ended September 30, 2019).
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 November 19, 2019.
31.2	Certification by the Executive Vice President and Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act, dated November 19, 2019.
32.1	Written Statement of the President and Chief Executive Officer, pursuant to 18 U.S.C. ss. 1350, dated November 19, 2019.
32.2	Written Statement of the Executive Vice President and Chief Financial Officer, pursuant to 18 U.S.C. ss. 1350, dated November 19, 2019.
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).

 $^{{\}color{red} *} \quad \text{Denotes a management contract or compensatory plan or arrangement.} \\$

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

November 19, 2019

y /s/ Wilson R. Jones

Wilson R. Jones, 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.

November 19, 2019	Ву	/s/ Wilson R. Jones Wilson R. Jones, President and Chief Executive Officer and Director (Principal Executive Officer)
November 19, 2019	Ву	/s/ David M. Sagehorn David M. Sagehorn, Executive Vice President and Chief Financial Officer (Principal Financial Officer)
November 19, 2019	Ву	/s/ James C. Freeders James C. Freeders, Senior Vice President Finance and Controller (Principal Accounting Officer)
November 19, 2019	Ву	/s/ Keith J. Allman Keith J. Allman, Director
November 19, 2019	Ву	/s/ Leslie F. Kenne Leslie F. Kenne, Director
November 19, 2019	Ву	/s/ Kimberley Metcalf-Kupres Kimberley Metcalf-Kupres, Director
November 19, 2019	Ву	/s/ Stephen D. Newlin Stephen D. Newlin, Director
November 19, 2019	Ву	/s/ Raymond T. Odierno Raymond T. Odierno, Director
November 19, 2019	Ву	/s/ Craig P. Omtvedt Craig P Omtvedt, Chairman of the Board
November 19, 2019	Ву	/s/ Duncan J. Palmer Duncan J. Palmer, Director
November 19, 2019	Ву	/s/ Sandra E. Rowland Sandra E. Rowland, Director
November 19, 2019	Ву	/s/ John S. Shiely John S. Shiely, Director

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock summarizes material terms and provisions that apply to our capital stock. The summary is subject to and qualified in its entirety by reference to our articles of incorporation and our by-laws, as amended, which are filed as exhibits to this Annual Report on Form 10-K.

General

We are authorized to issue up to 302,000,000 shares of capital stock, 300,000,000 of which are shares of common stock, \$.01 par value per share, and 2,000,000 shares of which are preferred stock, \$.01 par value per share.

Common Stock

Subject to the Wisconsin Business Corporation Law as described below under "Statutory and By-Law Provisions," holders of our common stock are entitled to one vote for each share of common stock held by them on all matters properly presented to shareholders. Subject to the prior rights of the holders of any shares of our preferred stock that are outstanding, our board of directors may at its discretion declare and pay dividends on our common stock out of our earnings or assets legally available for the payment of dividends. Subject to the prior rights of the holders of any shares of our preferred stock that are outstanding, if we are liquidated, any amounts remaining after the discharge of outstanding indebtedness will be paid pro rata to the holders of our common stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Preferred Stock

Our board of directors is authorized to issue our preferred stock in one or more series and to fix the dividend rate or rates and the preferences, if any over any other class or series with respect to dividends; the price and terms and conditions of redemption; the amounts payable in the event of voluntary or involuntary liquidation; sinking fund provisions for redemption or purchase of a series; the terms and conditions on which a series may be converted; and voting rights.

It is not possible to state the actual effects of the issuance of any shares of preferred stock upon the rights of holders of our common stock until our board of directors determines the specific rights of the holders of the preferred stock. However, these effects might include:

- restricting dividends on the common stock;
- diluting the voting power of the common stock;
- impairing the liquidation rights of the common stock; and
- delaying or preventing a change in control of our company.

Statutory and By-Law Provisions

Provisions of Wisconsin law and our by-laws might also discourage some types of transactions that involve an actual or threatened change of control of Oshkosh Corporation:

- Section 180.1150 of the Wisconsin Business Corporation Law provides that the voting power of shares of Wisconsin corporations, including Oshkosh Corporation, held by any person or persons acting as a group in excess of 20% of the voting power of the corporation is limited to 10% of the full voting power of those shares. This restriction does not apply to shares acquired directly from the corporation or in specified transactions or shares for which full voting power has been restored pursuant to a vote of shareholders.
- Sections 180.1140 through 180.1144 of the Wisconsin Business Corporation Law contain limitations and special voting provisions applicable to
 specified business combinations involving Wisconsin corporations, including Oshkosh Corporation, and a significant shareholder, unless the board of
 directors of the corporation approves the business combination or the shareholder's acquisition of shares before the shares are acquired.
- Similarly, Sections 180.1130 through 180.1133 of the Wisconsin Business Corporation Law contain special voting provisions applicable to specified business combinations unless minimum price and procedural requirements are met.
- Following the commencement of a takeover offer, Section 180.1134 of the Wisconsin Business Corporation Law imposes special voting requirements
 on specified share repurchases effected at a premium to the market and on specified asset sales by the corporation unless, as it relates to the
 potential sale of assets, the corporation has at least three independent directors and a majority of the independent directors vote not to have the
 provision apply to the corporation.

In addition, our by-laws establish a procedure which shareholders seeking to call a special meeting of shareholders must satisfy. This procedure involves notice to us, the receipt by us of written demands for a special meeting from holders of 10% or more of the issued and outstanding shares of common stock, a review of the validity of such demands by an independent inspector appointed by us and the fixing of the record and meeting dates by our board of directors. In addition, shareholders demanding such a special meeting must deliver to Oshkosh Corporation a written agreement to pay the costs incurred by us in holding a special meeting, including the costs of preparing and mailing the proxy materials for our solicitation of proxies for use at such meeting, in the event such shareholders are unsuccessful in their proxy solicitation.

Our by-laws also provide our board of directors with discretion in postponing shareholder meetings, including, within certain limits, special meetings of shareholders. Additionally, our chairman or board of directors (acting by resolution) may adjourn a shareholder meeting at any time prior to the transaction of business at such meeting, within certain limits. Our by-laws also contain strict time deadlines and procedures applicable to shareholders seeking to nominate a person for election as a director or to otherwise bring business before a meeting.

State or Other Jurisdiction

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 of Incorporation or Organization Kewaunee Fabrications, LLC Wisconsin McNeilus Companies, Inc. Minnesota Concrete Equipment Company, Inc. Nebraska **Audubon Manufacturing Corporation** Iowa Iowa Contract Fabrications, Inc. Iowa Iowa Mold Tooling Co., Inc. Delaware JLG Industries, Inc. Pennsylvania Fulton International, Inc. Delaware JLG Equipment Services, Inc. Pennsylvania Access Financial Solutions, Inc. Maryland JerrDan, LLC Delaware JLG New Zealand Access Equipment and Service **New Zealand** JLG Industries Japan Co., Limited Japan JLG Industries Korea, Limited South Korea JLG Pacific Holdings, Inc. Pennsylvania JLG Properties Australia Pty Limited Australia **OSK Industries LLC** Wisconsin JLG EMEA Holdings C.V. Netherlands JLG Equipment Services Limited Hong Kong Oshkosh JLG (Tianjin) Equipment Technology Co. Limited China 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 Central Europe S.R.L. Romania JLG Manufacturing Europe BVBA Belgium JLG Sverige AB Sweden LMI Finance L.P. Canada Oshkosh Italy B.V. **Netherlands** Oshkosh Rus, LLC Russia Platformas Elevadoras JLG Iberica S.L Spain **Power Towers Limited United Kingdom** Power Towers Deutschland GmbH Germany **Power Towers LLC United Arab Emirates**

State or Other Jurisdiction of Incorporation or Organization

Name	of incorporation of Organization
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 Latino Americana Holdings 1 B.V.	Netherlands
JLG Latino Americana Holdings 2 B.V.	Netherlands
JLG Latino Americana Cooperatief U.A.	Netherlands
JLG Latino Americana Ltda.	Brazil
OSK Company LLC	Wisconsin
Premco Products Inc.	California
JLG Maquinaria Mexico, S. de r.l. de C.U.	Mexico
London Machinery Inc.	Canada
London (Mtl) Inc.	Canada
McIntire Fabricators, Inc.	Iowa
McNeilus Financial Services, Inc.	Minnesota
McNeilus Truck and Manufacturing, Inc.	Minnesota
McNeilus Financial, Inc.	Texas
Viking Truck & Equipment Sales (MI), Inc.	Michigan
Viking Truck & Equipment Sales (OH), Inc.	Ohio
Oshkosh Airport Products, LLC	Wisconsin
Oshkosh Arabia FZE	Dubai
Oshkosh Asia Holdings Limited	Mauritius
Oshkosh Commercial (Beijing) Co., Limited	China
Oshkosh Commercial Products, LLC	Wisconsin
Oshkosh Defense, LLC	Wisconsin
Oshkosh Defense Canada Incorporated	Canada
Oshkosh HD, LLC	Wisconsin
ILG Industries India Private Limited	India
Oshkosh Logistics Corporation	Wisconsin
Oshkosh Manufacturing, LLC	Wisconsin
Pierce Manufacturing Inc.	Wisconsin
TN-GR Holdings, LLC	Delaware

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

Oshkosh Italy B.V. is a 50% joint partner in RiRent Europe B.V. (Netherlands)

Name

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 of our reports dated November 19, 2019, relating to the consolidated financial statements and financial statement schedule of Oshkosh Corporation and subsidiaries (the "Company"), and the effectiveness of the Company's internal control over financial reporting (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the Company's adoption of a new accounting standard), appearing in this Annual Report on Form 10-K of Oshkosh Corporation and subsidiaries for the year ended September 30, 2019.

/s/ Deloitte & Touche LLP
Milwaukee, Wisconsin
November 19, 2019

CERTIFICATIONS

I, Wilson R. Jones, 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.

November 19, 2019 /s/ Wilson R. Jones

Wilson R. Jones, President and Chief Executive Officer

CERTIFICATIONS

I, David M. Sagehorn, 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.

November 19, 2019 /s/ David M. Sagehorn

David M. Sagehorn, Executive Vice President and Chief Financial Officer

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 September 30, 2019 (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/ Wilson R. Jones

Wilson R. Jones November 19, 2019

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 September 30, 2019 (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/ David M. Sagehorn

David M. Sagehorn November 19, 2019