

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

FORM 10-K

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

For the fiscal year ended June 30, 2020

OR

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

For the transition period from _____ to _____

Commission File No. 1-4982

PARKER-HANNIFIN CORPORATION

(Exact name of registrant as specified in its charter)

Ohio (State or other jurisdiction of Incorporation or Organization)	34-0451060 (I.R.S. Employer Identification No.)
6035 Parkland Boulevard, Cleveland, Ohio (Address of Principal Executive Offices)	44124-4141 (Zip Code)
Registrant's telephone number, including area code (216) 896-3000	
Securities registered pursuant to Section 12(b) of the Act:	

Title of Each Class	Trading Symbol	Name of Each Exchange on which Registered
Common Shares, \$.50 par value	PH	New York Stock Exchange

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

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

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

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

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). Yes No

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

Large Accelerated Filer	<input checked="" type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>
Non-Accelerated Filer	<input type="checkbox"/>	Smaller Reporting Company	<input type="checkbox"/>
Emerging Growth Company	<input type="checkbox"/>		

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

Indicate by check mark whether the Registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

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

The aggregate market value of the outstanding common stock held by non-affiliates of the Registrant as of December 31, 2019: \$26,292,325,769.

The number of Common Shares outstanding on July 31, 2020 was 128,561,616.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Definitive Proxy Statement for the Company's 2020 Annual Meeting of Shareholders, to be held on October 28, 2020, are incorporated by reference into Part III of this Annual Report on Form 10-K.

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PARKER-HANNIFIN CORPORATION

FORM 10-K

Fiscal Year Ended June 30, 2020

PART I

ITEM 1. Business. Parker-Hannifin Corporation is a leading worldwide diversified manufacturer of motion and control technologies and systems, providing precision engineered solutions for a wide variety of mobile, industrial and aerospace markets. The Company was incorporated in Ohio in 1938. Our principal executive offices are located at 6035 Parkland Boulevard, Cleveland, Ohio 44124-4141, telephone (216) 896-3000. As used in this Annual Report on Form 10-K, unless the context otherwise requires, the terms "Company", "Parker", "we" or "us" refer to Parker-Hannifin Corporation and its subsidiaries, and the term "year" and references to specific years refer to the applicable fiscal year.

Our investor relations website address is www.phstock.com. We make available free of charge on or through our website our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as soon as reasonably practicable after filing or furnishing those reports electronically with the Securities and Exchange Commission. The information contained on or accessible through our website is not part of this Annual Report on Form 10-K.

The Board of Directors has adopted a written charter for each of its committees. These charters, as well as our Global Code of Business Conduct, Corporate Governance Guidelines and Independence Standards for Directors, are posted and available on our investor relations website under the Corporate Governance page. Shareholders may request copies of these corporate governance documents, free of charge, by writing to Parker-Hannifin Corporation, 6035 Parkland Boulevard, Cleveland, Ohio 44124-4141, Attention: Secretary, or by calling (216) 896-3000.

Our manufacturing, service, sales, distribution and administrative facilities are located in 38 states within the United States and in 48 other countries. We sell our products as original and replacement equipment through sales and distribution centers worldwide. We market our products through direct-sales employees, independent distributors and sales representatives. We supply products to approximately 464,000 customers in virtually every significant manufacturing, transportation and processing industry.

We have two reporting segments: Diversified Industrial and Aerospace Systems. During 2020, our technologies and systems were used in the products of these two reporting segments. For 2020, the Company's net sales were \$13.7 billion. Diversified Industrial Segment products accounted for 80 percent and Aerospace Systems Segment products accounted for 20 percent of those net sales.

Markets

Our technologies and systems are used throughout various industries and in various applications. The approximately 464,000 customers who purchase Parker products are found in almost every significant manufacturing, transportation and processing industry. No single customer accounted for more than three percent of our total net sales for the year ended June 30, 2020.

Diversified Industrial Segment. Our Diversified Industrial Segment sells products to both original equipment manufacturers ("OEMs") and distributors who serve the replacement markets in manufacturing, packaging, processing, transportation, mobile construction, refrigeration and air conditioning, agricultural and military machinery and equipment industries. The major markets served by our Diversified Industrial Segment are listed below by group:

- | | | |
|------------------------------------|--|--|
| Engineered Materials Group: | <ul style="list-style-type: none">• Aerospace• Agriculture• Chemical processing• Construction• Defense• Information technology• Life sciences | <ul style="list-style-type: none">• Microelectronics• Oil & gas• Power generation• Renewable energy• Telecommunications• Transportation• Truck & bus |
| Filtration Group: | <ul style="list-style-type: none">• Agriculture• Aerospace & defense• Construction• Food & beverage• Heating, ventilation & air conditioning (HVAC)• Industrial machinery• Life sciences | <ul style="list-style-type: none">• Marine• Mining• Oil & gas• Power generation• Renewable energy• Transportation• Water purification |
| Fluid Connectors Group: | <ul style="list-style-type: none">• Aerial lift• Agriculture• Bulk chemical handling• Construction• Food & beverage• Fuel & gas delivery• Industrial machinery | <ul style="list-style-type: none">• Life sciences• Marine• Mining• Mobile• Refrigeration and air conditioning• Renewable energy• Transportation |
| Instrumentation Group: | <ul style="list-style-type: none">• Air conditioning• Alternative fuels• Analytical• Chemical• Diesel engine• Food & beverage | <ul style="list-style-type: none">• Life sciences• Microelectronics• Oil & gas• Refining• Refrigeration• Transportation |
| Motion Systems Group: | Mobile: <ul style="list-style-type: none">• Agriculture• Construction• Marine• Material handling• Military• Transportation• Truck & bus• Turf | Industrial: <ul style="list-style-type: none">• Distribution• General machinery• Machine tool• Mining• Oil & gas• Power generation• Semiconductor |

Aerospace Systems Segment. Our Aerospace Systems Segment sells products primarily in the commercial and military aerospace markets to both OEMs and to end users for spares, maintenance, repair and overhaul. The major markets for products of the Aerospace Systems Segment are listed below:

- Aftermarket services
- Commercial transport aircraft
- Engines
- General & business aviation
- Helicopters
- Military aircraft
- Missiles
- Power generation (industrial gas turbines)
- Regional transport aircraft
- Unmanned aerial vehicles

Principal Products and Methods of Distribution

We offer hundreds of thousands of individual products, and no single product contributed more than one percent to our total net sales for the year ended June 30, 2020. Listed below are some of our principal products.

Diversified Industrial Segment. Our Diversified Industrial Segment products consist of a broad range of motion-control and fluid systems and components, which are described below by group:

Engineered Materials Group: sealing, shielding, thermal products and systems, adhesives, coatings and noise vibration and harshness solutions, including:

- Active vibration control systems
- Bearings & dampers
- Coatings
- Dynamic seals
- Elastomeric mounts & isolators
- Elastomeric o-rings
- Electromagnetic interference shielding
- Extrusion & fabricated seals
- High-temperature metal seals
- Homogeneous & inserted elastomeric shapes
- Medical products fabrication & assembly
- Metal & plastic composite bonded seals
- Precision-cut seals
- Rubber-to-substrate adhesives
- Specialty chemicals
- Structural adhesives
- Thermal management
- Wireless sensing systems

Filtration Group: filters, systems and diagnostics solutions to monitor and remove contaminants from fuel, air, oil, water and other liquids and gases, including:

- Aerospace filters & systems
- Air pollution control & dust collection systems & filters
- Compressed air & gas treatment solutions
- Engine fuel, oil, air & closed crankcase ventilation filtration systems
- Filtration & purification systems
- Fluid condition monitoring systems
- Gas turbine air inlet filters
- Heating, ventilation & air conditioning filters
- Hydraulic & lubrication filters & systems
- Industrial & analytical gas generators
- Instrumentation filters
- Membrane, fiber, & sintered metal filters
- Natural gas filters
- Process liquid, air & gas filters
- Sterile air filters
- Water purification filters & systems

Fluid Connectors Group: connectors, which control, transmit and contain fluid, including:

- Check valves
- Diagnostic and IoT sensors
- Hose couplings
- Hose crimpers
- Industrial hose
- Low pressure fittings & adapters
- Polytetrafluoroethylene (PTFE) hose & tubing
- Quick couplings
- Rubber & thermoplastic hose
- Tube fittings & adapters
- Tubing & plastic fittings

Instrumentation Group: high quality flow control solutions that are critical to a wide range of applications involving extreme corrosion resistance, temperatures, pressures and precise flow, including:

- Accumulators
- Analytical instruments & sample conditioning systems
- Compressed natural gas dispensers
- Cryogenic valves
- Electronic valves
- Emissions
- Filter driers
- Fluid system & control fittings, meters, valves, regulators, & manifold valves
- Fluoropolymer chemical delivery fittings, valves & pumps
- High pressure fittings, valves, pumps & systems
- High-purity gas delivery fittings, valves & regulators
- Miniature valves & pumps
- Natural gas on-board fuel systems
- Pressure regulating valves
- Refrigeration & air conditioning electronic controls & monitoring
- Solenoid valves

Motion Systems Group: hydraulic, pneumatic, and electromechanical components and systems for builders and users of mobile and industrial machinery and equipment, including:

Hydraulic Actuation:

- Accumulators
- Coolers
- Cylinders
- Electrohydraulic actuators
- Helical actuators
- Rotary actuators

Hydraulic Pumps & Motors:

- Drive controlled pumps
- Electrohydraulic pumps
- Fan drives
- Gerotor pumps & motors
- Integrated hydrostatic transmissions
- Piston pumps & motors
- Power take-offs
- Screw pumps
- Vane pumps & motors

Hydraulic and Electro Hydraulic Systems:

- Cartridge valves
- Hydraulic valves
- Industrial valves
- Mobile valves

Pneumatics:

- Air preparation (FRL) & dryers
- Grippers
- IO link controllers
- Pneumatic cylinders
- Pneumatic valves

Electronics:

- Clusters
- Controllers & human machine interfaces (HMI)
- Drives (AC/DC Servo)
- Electric actuators & positioners
- Electric motors & gearheads
- Electronic displays & HMI
- IoT
- Joysticks
- Sensors
- Software

Diversified Industrial Segment products include standard products, as well as custom products which are engineered and produced to OEM specifications for application to particular end products. Standard and custom products are also used in the replacement of original products. We market our Diversified Industrial Segment products primarily through field sales employees and approximately 16,400 independent distributor locations throughout the world.

Aerospace Systems Segment. Our Aerospace Systems Segment products are used in commercial and military airframe and engine programs and include:

- Control actuation systems & components
- Engine build-up ducting
- Engine exhaust nozzles & assemblies
- Engine systems & components
- Fluid conveyance systems & components
- Fluid metering, delivery & atomization devices
- Fuel systems & components
- Fuel tank inerting systems
- Hydraulic systems & components
- Lubrication components
- Pilot controls
- Pneumatic control components
- Thermal management
- Wheels & brakes

We market our Aerospace Systems Segment products through our regional sales organizations, which sell directly to OEMs and end users throughout the world.

Competition

Parker operates in highly competitive markets and industries. We offer our products over numerous, varied markets through our divisions operating in 49 countries. Our global scope means that we have hundreds of competitors across our various markets and product offerings. Our competitors include U.S. and non-U.S. companies. These competitors and the degree of competition vary widely by product lines, end markets, geographic scope and/or geographic locations. Although each of our segments has numerous competitors, given our market and product breadth, no single competitor competes with the Company with respect to all the products we manufacture and sell.

In the Diversified Industrial Segment, Parker competes on the basis of product quality and innovation, customer service, manufacturing and distribution capability, and price competitiveness. We believe that we are one of the market leaders in most of the major markets for our most significant Diversified Industrial Segment products. We have comprehensive motion and control packages for the broadest systems capabilities. While our primary global competitors include Bosch Rexroth AG, Danaher Corporation, Danfoss A/S, Donaldson Company, Inc., Eaton Corporation plc, Emerson Climate Technologies, Inc., Emerson/ASCO, Festo AG & Co., Freudenberg-NOK, Gates Corporation, IMI/Norgren, SMC Corporation, Swagelok Company, and Trelleborg AB, none of these businesses compete with every group or product in our Diversified Industrial Segment.

In the Aerospace Systems Segment, we have developed relationships with key customers based on our advanced technological and engineering capabilities, superior performance in quality, delivery, service, and price competitiveness. This has enabled us to obtain significant original equipment business on new aircraft programs for our systems and components, as well as the follow-on repair and replacement business for these programs. Further, the Aerospace Systems Segment utilizes low-cost manufacturing techniques and best cost region strategies to achieve a lower cost producer status. Although we believe that we are one of the market leaders in most of the major markets for our most significant Aerospace Systems Segment products, primary global competitors for these products include Eaton Corporation plc, Honeywell International, Inc., Moog Inc., Triumph Group, Inc., Senior plc., Raytheon Collins Aerospace, Woodward, Inc. and Safran S.A.

We believe that our platform utilizing eight core technologies, which consist of electromechanical, filtration, fluid handling, hydraulics, pneumatics, process control, refrigeration, and sealing and shielding, is a positive factor in our ability to compete effectively with both large and small competitors. For both of our segments, we believe that the following factors also contribute to our ability to compete effectively:

- decentralized business model;
- technology breadth and interconnectivity;
- engineered products with intellectual property;
- long product life cycles;
- balanced OEM vs. aftermarket;
- low capital investment requirements; and
- great generators and deployers of cash over the cycle.

Patents, Trademarks, Licenses

We own a number of patents, trademarks, copyrights and licenses related to our products. We also have exclusive and non-exclusive rights to use patents, trademarks and copyrights owned by others. In addition, patent and trademark applications are pending, although there can be no assurance that further patents and trademarks will be issued. We do not depend on any single patent, trademark, copyright or license or group of patents, trademarks, copyrights or licenses to any material extent.

Backlog and Seasonal Nature of Business

Backlog consists of written firm orders from a customer to deliver products and, in the case of blanket purchase orders, only includes the portion of the order for which a schedule or release date has been agreed to with the customer. The dollar value of backlog is equal to the amount that is expected to be billed to the customer and reported as a sale. Our backlog by business segment for the past two years is included in Part II, Item 7 of this Annual Report on Form 10-K and is incorporated herein by reference. Our backlog was \$5.1 billion at June 30, 2020 and \$4.2 billion at June 30, 2019. Approximately 85 percent of our backlog at June 30, 2020 is scheduled for delivery in the succeeding twelve months. Because of the breadth and global scope of our business, our overall business is generally not seasonal in nature.

Environmental Regulation

Certain of our operations require the use and handling of hazardous materials and, as a result, the Company is subject to United States federal, state, and local laws and regulations as well as non-U.S. laws and regulations designed to protect the environment and regulate the discharge of materials into the environment. These laws impose penalties, fines and other sanctions for non-compliance and liability for response costs, property damage and personal injury resulting from past and current spills, disposals or other releases of, or exposures to, hazardous materials. Among other environmental laws, we are subject to the United States federal "Superfund" law, under which we have been designated as a "potentially responsible party" and may be liable for cleanup costs associated with various waste sites, some of which are on the United States Environmental Protection Agency's Superfund priority list.

As of June 30, 2020, Parker was involved in environmental remediation at various U.S. and non-U.S. manufacturing facilities presently or formerly operated by us and as a "potentially responsible party," along with other companies, at off-site waste disposal facilities and regional sites.

We believe that our policies, practices and procedures are properly designed to prevent unreasonable risk of environmental damage and the consequent financial liability to the Company. Compliance with environmental laws and regulations requires continuing management efforts and expenditures by the Company. Compliance with environmental laws and regulations has not had in the past, and, we believe, will not have in the future, a material adverse effect on our capital expenditures, earnings, or competitive position.

Our reserve for environmental matters is discussed in Note 17 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K and is incorporated herein by reference.

Energy Matters and Sources and Availability of Raw Materials

Our primary energy source for both of our business segments is electric power. While we cannot predict future costs of electric power, the primary source for production of the required electric power is expected to be coal and natural gas from coal and natural gas reserves available to electric utilities. We are subject to governmental regulations in regard to energy supplies in the United States and elsewhere. To date, we have not experienced any significant disruptions of our operations due to energy curtailments.

We primarily use steel, brass, copper, aluminum, nickel, rubber and thermoplastic materials and chemicals as the principal raw materials in our products. We expect these materials to be available from numerous sources in quantities sufficient to meet our requirements.

Employees

We employ approximately 50,520 persons as of June 30, 2020, of whom approximately 25,430 were employed by foreign subsidiaries.

Acquisitions

The Company completed two acquisitions in 2020, which are discussed in Note 3 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K and are incorporated herein by reference.

ITEM 1A. Risk Factors.

The following "risk factors" identify what we believe to be the risks that could materially adversely affect our financial and/or operational performance. These risk factors should be considered and evaluated together with information incorporated by reference or otherwise included elsewhere in this Annual Report on Form 10-K. Additional risks not currently known to the Company or that the Company currently believes are immaterial also may impair the Company's business, financial condition, results of operations and cash flows.

The novel coronavirus ("COVID-19") pandemic has disrupted our operations and could have a material adverse effect on our business and financial condition.

The COVID-19 pandemic, along with the response to the pandemic by governmental and other actors, has disrupted our operations and is expected to continue to negatively impact our operations in the future, which impact may be material. We have experienced, and may continue to experience, mandatory and voluntary facility closures in certain jurisdictions in which we operate. Furthermore, several of our customers temporarily suspended their operations and we have experienced less demand for our products. Disruptions to our customers in the aerospace industry, which is facing the consequences of travel

restrictions and severely diminished demand, have been and are expected to continue to be especially challenging. Additionally, the COVID-19 outbreak has, and could further, disrupt our supply chain. Facility closures or other restrictions, as well as supply chain disruptions, could materially adversely affect our ability to adequately staff, supply or otherwise maintain our operations. Moreover, because certain of our employees have transitioned to working from home, we may be subject to increased vulnerability to cyber and other information technology risks. We have modified, and may further modify, our business practices in response to the risks and negative impacts associated with the COVID-19 pandemic. However, there can be no assurance that these measures will be temporary or successful.

The impact of the COVID-19 pandemic continues to evolve and its ultimate duration, severity and disruption to our business, customers and supply chain, and the related financial impact to us, cannot be accurately forecasted at this time. Should such disruption continue for an extended period, the adverse effect on our business, results of operations and financial condition could be more severe than previously anticipated. Additionally, continued weak economic conditions generally could result in impairment in value of our tangible or intangible assets. Furthermore, future public health crises are possible and could involve some or all of the risks discussed above.

Risks arising from uncertainty in worldwide and regional economic conditions may harm our business and make it difficult to project long-term performance.

Our business is sensitive to global macro-economic conditions. Future macroeconomic downturns may have an adverse effect on our business, results of operations and financial condition, as well as our distributors, customers and suppliers, and on activity in many of the industries and markets we serve. Among the economic factors which may have such an effect are manufacturing and other end-market activity, global pandemics, currency exchange rates, air travel trends, difficulties entering new markets, tariffs and governmental trade and monetary policies, and general economic conditions such as inflation, deflation, interest rates and credit availability. These factors may, among other things, negatively impact our level of purchases, capital expenditures, and creditworthiness, as well as our distributors, customers and suppliers, and, therefore, the Company's revenues, operating profits, margins, and order rates.

We cannot predict changes in worldwide or regional economic conditions and government policies, as such conditions are highly volatile and beyond our control. If these conditions deteriorate or remain at depressed levels for extended periods, however, our business, results of operations and financial condition could be materially adversely affected.

As a global business, we are exposed to economic, political and other risks in different countries in which we operate, which could materially reduce our sales, profitability or cash flows, or materially increase our liabilities.

Our net sales derived from customers outside the United States were approximately 37 percent in 2020, 39 percent in 2019 and 41 percent in 2018. In addition, many of our manufacturing operations and suppliers are located outside the United States. The Company expects net sales from non-U.S. markets to continue to represent a significant portion of its total net sales. Our non-U.S. operations are subject to risks in addition to those facing our domestic operations, including:

- fluctuations in currency exchange rates and/or changes in monetary policy;
- public health crises, including pandemics;
- limitations on ownership and on repatriation of earnings;
- transportation delays and interruptions;
- political, social and economic instability and disruptions;
- government embargoes or trade restrictions;
- the imposition of duties and tariffs and other trade barriers;
- import and export controls;
- labor unrest and current and changing regulatory environments;
- the potential for nationalization of enterprises;
- difficulties in staffing and managing multi-national operations;
- limitations on our ability to enforce legal rights and remedies;
- potentially adverse tax consequences; and
- difficulties in implementing restructuring actions on a timely basis.

If we are unable to successfully manage the risks associated with expanding our global business or adequately manage operational fluctuations internationally, the risks could have a material adverse effect on our business, results of operations or financial condition.

We are subject to risks relating to acquisitions and joint ventures, and risks relating to the integration of acquired companies, including risks related to the integration of CLARCOR Inc. ("Clarcor"), Lord Corporation ("Lord") and Exotic Metals Forming Company ("Exotic").

We expect to continue our strategy of identifying and acquiring businesses with complementary products and services, and entering into joint ventures, which we believe will enhance our operations and profitability. However, there can be no assurance that we will be able to continue to find suitable businesses to purchase or joint venture opportunities, or that we will be able to acquire such businesses or enter into such joint ventures on acceptable terms. Furthermore, there are no assurances that we will be able to avoid acquiring or assuming unexpected liabilities. If we are unable to avoid these risks, our results of operations and financial condition could be materially adversely affected.

In addition, we may not be able to integrate successfully any businesses that we purchase into our existing business and it is possible that any acquired businesses or joint ventures may not be profitable. For example, we have devoted significant management attention and resources to integrating the business and operations of Clarcor, Lord and Exotic. We may encounter, or have encountered, the following difficulties during the integration process:

- the consequences of a change in tax treatment, including the cost of integration and compliance and the possibility that the full benefits anticipated to result from the acquisitions may not be realized;
- delays in the integration of management teams, strategies, operations, products, and services;
- differences in business backgrounds, corporate cultures, and management philosophies that may delay successful integration;
- the ability to retain key employees;
- the ability to create and enforce uniform standards, controls, procedures, policies, and information systems;
- challenges of integrating complex systems, technologies, networks, and other assets of the acquired companies in a manner that minimizes any adverse impact or disruptions to customers, suppliers, employees, and other constituencies; and
- unknown liabilities and unforeseen increased expenses or delays associated with the integration beyond current estimates.

The successful integration of new businesses and the success of joint ventures also depend on our ability to manage these new businesses and cut excess costs. If we are unable to avoid these risks, our results of operations and financial condition could be materially adversely affected.

Our results may be adversely affected if expanded operations from the acquisition of Clarcor, Lord and Exotic are not effectively managed.

Our recent acquisitions have greatly expanded the size and complexity of our business. Our future success depends, in part, on the ability to manage this expanded business, which may pose or has posed substantial challenges for management, including challenges related to the management and monitoring of the expanded global operations and new manufacturing processes and products, and the associated costs and complexity. There can be no assurance of successful management of these matters or that we will realize the expected benefits of the acquisitions.

The Company may be subject to risks relating to organizational changes.

We regularly execute organizational changes such as acquisitions, divestitures and realignments to support our growth and cost management strategies. We also engage in initiatives aimed to increase productivity, efficiencies and cash flow and to reduce costs. The Company commits significant resources to identify, develop and retain key employees to ensure uninterrupted leadership and direction. If we are unable to successfully manage these and other organizational changes, the ability to complete such activities and realize anticipated synergies or cost savings as well as our results of operations and financial condition could be materially adversely affected. We cannot offer assurances that any of these initiatives will be beneficial to the extent anticipated, or that the estimated efficiency improvements, incremental cost savings or cash flow improvements will be realized as anticipated or at all.

Increased cybersecurity threats and more sophisticated and targeted computer crime could pose a risk to our information technology systems.

We rely extensively on information technology systems to manage and operate our business, some of which are managed by third parties. The security and functionality of these information technology systems, and the processing of data by these systems, are critical to our business operations. If these systems, or any part of the systems, are damaged, intruded upon, attacked, shutdown or cease to function properly (whether by planned upgrades, force majeure, telecommunications failures, hardware or software break-ins or viruses, or other cybersecurity incidents) and we suffer any resulting interruption in our ability to manage and operate our business or if our products are affected, our results of operations and financial condition

could be materially adversely affected. As a result of the COVID-19 pandemic, certain of our employees have transitioned to working from home, which may increase our vulnerability to cyber and other information technology risks. In addition to existing risks, any adoption or deployment of new technologies via acquisitions or internal initiatives may increase our exposure to risks, breaches, or failures, which could materially adversely affect our results of operations or financial condition. Furthermore, the Company may have access to sensitive, confidential, or personal data or information that may be subject to privacy and security laws, regulations, or other contractually-imposed controls. Despite our use of reasonable and appropriate controls, material security breaches, theft, misplaced, lost or corrupted data, programming, or employee errors and/or malfeasance could lead to the compromise or improper use of such sensitive, confidential, or personal data or information, resulting in possible negative consequences, such as fines, penalties, loss of reputation, competitiveness or customers, or other negative consequences resulting in adverse impacts to our results of operations or financial condition.

Changes in the demand for and supply of our products may adversely affect our financial results, financial condition and cash flow.

Demand for and supply of our products has been and may be adversely affected by numerous factors, some of which we cannot predict or control. Such factors include:

- changes in business relationships with and purchases by or from major customers, suppliers or distributors, including delays or cancellations in shipments, disputes regarding contract terms or significant changes in financial condition, and changes in contract cost and revenue estimates for new development programs, including changes as a result of the COVID-19 pandemic;
- changes in product mix;
- changes in the market acceptance of our products;
- increased competition in the markets we serve;
- declines in the general level of industrial production, including as a result of the COVID-19 pandemic;
- weakness in the end-markets we serve, including as a result of the COVID-19 pandemic;
- fluctuations in the availability or the prices of raw materials; and
- fluctuations in currency exchange rates.

If any of these factors occur, the demand for and supply of our products could suffer, which could materially adversely affect the Company's results of operations.

The development of new products and technologies requires substantial investment and is required to remain competitive in the markets we serve. If we are unable to successfully introduce new commercial products, our profitability could be adversely affected.

The markets we serve are characterized by rapidly changing technologies and frequent introductions of new products and services. Our ability to develop new products based on technological innovation can affect our competitive position and often requires the investment of significant resources. If we cannot develop, or have difficulties or delays developing new and enhanced products and services, or if we fail to gain market or regulatory acceptance of new products and technologies, our revenues may be materially reduced and our competitive position could be materially adversely affected. In addition, we may invest in research and development of products and services, or in acquisitions or other investments, that do not lead to significant revenue, which could adversely affect our profitability.

Price and supply fluctuations of the raw materials used in our production processes and by our suppliers of component parts could negatively impact our financial results.

Our supply of raw materials could be interrupted for a variety of reasons, including availability and pricing. Furthermore, changes to United States and other countries' tariff and import/export regulations have in the past and may in the future have a negative impact on the availability and pricing of raw materials. Prices for raw materials necessary for production have fluctuated significantly in the past and significant increases could adversely affect our results of operations and profit margins. Our efforts to manage these fluctuations by, among other things, passing along price increases to our customers, may be subject to a time delay between the increased raw material prices and our ability to increase the price of our products, or we may be unable to increase the prices of our products due to pricing pressure, contract terms or other factors. Any such inability to manage fluctuations could adversely impact our results of operations and cash flows.

Our suppliers of component parts may significantly and quickly increase their prices in response to increases in costs of raw materials that they use to manufacture the component parts. As a result, we may not be able to increase our prices commensurately with our increased costs. Consequently, our results of operations or financial condition could be materially adversely affected.

Changes in the competitive environment in which we operate may eliminate any competitive advantages that we currently have, which could adversely impact our business.

Our operations are subject to competition from a wide variety of global, regional and local competitors, which could adversely affect our results of operations by creating downward pricing pressure and/or a decline in our margins or market shares. To compete successfully, we must excel in terms of product quality and innovation, technological and engineering capability, manufacturing and distribution capability, delivery, price competitiveness, and customer experience.

Litigation and legal and regulatory proceedings against the Company could decrease our liquidity, impair our financial condition and adversely affect our results of operations.

From time to time, we are subject to litigation or other commercial disputes and other legal and regulatory proceedings relating to our business. Due to the inherent uncertainties of any litigation, commercial disputes or other legal or regulatory proceedings, we cannot accurately predict their ultimate outcome, including the outcome of any related appeals. An unfavorable outcome could materially adversely impact our business, financial condition and results of operations. Furthermore, as required by U.S. generally accepted accounting principles, we establish reserves based on our assessment of contingencies, including contingencies related to legal claims asserted against us. Subsequent developments in legal proceedings may affect our assessment and estimates of the loss contingency recorded as a reserve and require us to make payments in excess of our reserves, which could have an adverse effect on our results of operations.

We are subject to national and international laws and regulations, such as the anti-corruption laws of the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, relating to our business and our employees. Despite our policies, procedures and compliance programs, our internal controls and compliance systems may not be able to protect the Company from prohibited acts willfully committed by our employees, agents or business partners that would violate such applicable laws and regulations. Any such improper acts could damage the Company's reputation, subject us to civil or criminal judgments, fines or penalties, and could otherwise disrupt the Company's business, and as a result, could materially adversely impact our business, financial condition and results of operations.

Further, our operations are subject to certain antitrust and competition laws in the jurisdictions in which we conduct our business, in particular the United States and Europe. These laws prohibit, among other things, anticompetitive agreements and practices. If any of our commercial agreements or practices are found to violate or infringe such laws, we may be subject to civil and other penalties. We may also be subject to third-party claims for damages. Further, agreements that infringe antitrust and competition laws may be void and unenforceable, in whole or in part, or require modification in order to be lawful and enforceable. Accordingly, any violation of these laws could harm our reputation and could have a material adverse effect on our earnings, cash flows and financial condition.

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

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

Due to the nature of our business and products, we may be liable for damages based on product liability claims.

Our businesses expose us to potential product liability risks that are inherent in the design, manufacture and sale of our products and the products of third-party vendors that we use or resell. Significant product liability claims could have a material adverse effect on the Company's financial condition, liquidity and results of operations. Although we currently maintain what we believe to be suitable and adequate product liability insurance, there can be no assurance that we will be able to maintain our insurance on acceptable terms or that our insurance will provide adequate protection against all potential significant liabilities.

Failure to protect our intellectual property and know-how could reduce or eliminate any competitive advantage and reduce our sales and profitability, and the cost of protecting our intellectual property may be significant.

Protecting our intellectual property is critical to our innovation efforts. We own a number of patents, trade secrets, copyrights, trademarks, trade names and other forms of intellectual property related to our products and services throughout the world and the operation of our business. We also have exclusive and non-exclusive rights to intellectual property owned by others. Our intellectual property may be challenged, stolen or otherwise infringed upon by third parties or we may be unable to maintain, renew or enter into new license agreements with third-party owners of intellectual property on reasonable terms. In addition, the global nature of our business increases the risk that our intellectual property may be subject to infringement, theft or other unauthorized use or disclosure by others. In some cases, our ability to protect our intellectual property rights by legal recourse or otherwise may be limited, particularly in countries where laws or enforcement practices are inadequate or undeveloped. Unauthorized use or disclosure of our intellectual property rights or our inability to protect intellectual property and preserve associated intellectual property rights could lead to reputational harm and/or adversely impact our competitive position and results of operations.

Our indebtedness and restrictive covenants under our credit facilities could limit our operational and financial flexibility.

We have incurred significant indebtedness, and may incur additional debt for acquisitions, operations, research and development and capital expenditures, or for other reasons related to our overall capital deployment strategy. Our ability to make interest and scheduled principal payments and meet restrictive covenants could be adversely impacted by changes in the availability, terms and cost of capital, changes in interest rates or changes in our credit ratings or our outlook. These changes could increase our cost of financing and limit our debt capacity, thereby limiting our ability to pursue acquisition opportunities, react to market conditions and meet operational and capital needs, which may place us at a competitive disadvantage.

We carry goodwill on our balance sheet, which is subject to impairment testing and could subject us to significant non-cash charges to earnings in the future if impairment occurs.

We have goodwill recorded on our balance sheet. Goodwill is not amortized, but is tested for impairment annually in the second quarter or more often if events or changes in circumstances indicate a potential impairment may exist. Factors that could indicate that our goodwill is impaired include a decline in our stock price and market capitalization, lower than projected operating results and cash flows, and slower growth rates in our industry. Declines in our stock price, lower operating results and any decline in industry conditions in the future could increase the risk of impairment. Impairment testing incorporates our estimates of future operating results and cash flows, estimates of allocations of certain assets and cash flows among reporting units, estimates of future growth rates, and our judgment regarding the applicable discount rates used on estimated operating results and cash flows. If we determine at a future time that further impairment exists, it may result in a significant non-cash charge to earnings and lower stockholders' equity.

We may be required to make material expenditures in order to comply with environmental laws and climate change regulations, or incur additional liabilities under these laws and regulations.

Our operations necessitate the use and handling of hazardous materials and, as a result, subject us to various U.S. federal, state and local laws and regulations, as well as non-U.S. laws, designed to protect the environment and to regulate the discharge of materials into the environment. These laws impose penalties, fines and other sanctions for non-compliance and liability for response costs, property damages and personal injury resulting from past and current spills, disposals or other releases of, or the exposure to, hazardous materials. Among other laws, we are subject to the U.S. federal "Superfund" law, under which we have been designated as a "potentially responsible party" and may be liable for clean-up costs associated with various waste sites, some of which are on the United States Environmental Protection Agency's Superfund priority list. We could incur substantial costs as a result of non-compliance with or liability for cleanup or other costs or damages under environmental laws, including the "Superfund" law.

In addition, increased worldwide focus on climate change issues has led to legislative and regulatory efforts to limit greenhouse gas emissions, including regulation of such emissions through a "cap-and-trade" system globally. Increased regulation of greenhouse gas emissions and other climate change concerns could subject us to additional costs and restrictions, including increased energy and raw material costs. Until definitive regulations are adopted, we are not able to predict how such regulations would affect our business, operations or financial results.

We may be subject to other more stringent environmental laws in the future. If more stringent environmental laws are enacted in the future, these laws could have a material adverse effect on our business, results of operations and financial condition.

Increasing costs of certain employee and retiree benefits could adversely affect our liability for such benefits.

The funding requirements and the amount of expenses recorded for our defined benefit pension plans are dependent on changes in market interest rates and the value of plan assets, which are dependent on actual plan asset returns. Significant changes in market interest rates and decreases in the fair value of plan assets and investment losses on plan assets would increase funding requirements and expenses and may adversely impact our results of operations.

The Company absorbs a portion of healthcare costs for its employees. If healthcare costs rise significantly and we continue to absorb the majority of these costs, these increasing costs may adversely impact our future results of operations.

As a provider of products to the U.S. government, we are subject to additional risks related to future government spending as well as unusual performance conditions and enhanced compliance risks.

In addition to the risks identified herein, doing business with the U.S. government subjects us to unusual risks, including dependence on the level of government spending and compliance with and changes in governmental acquisition regulations. Agreements relating to the sale of products to government entities may be subject to termination, reduction or modification, either at the convenience of the government or for our failure to perform, or other unsatisfactory performance under the applicable contract. We are subject to government investigations of our business practices and compliance with government acquisition regulations. If the Company were charged with wrongdoing as a result of any such investigation, it could be suspended from bidding on or receiving awards of new government contracts, and we could be subject to fines or penalties associated with contract non-compliance or resulting from such investigations, which could have a material adverse effect on our results of operations.

ITEM 1B. Unresolved Staff Comments. None.**ITEM 1C. Information about our Executive Officers.**

Our executive officers as of August 15, 2020, were as follows:

Name	Position	Officer Since ⁽¹⁾	Age as of 8/15/2020
Thomas L. Williams	Chairman of the Board, Chief Executive Officer and Director	2005	61
Lee C. Banks	President, Chief Operating Officer and Director	2001	57
Catherine A. Suever	Executive Vice President – Finance & Administration and Chief Financial Officer	2010	61
Mark J. Hart	Executive Vice President – Human Resources & External Affairs	2016	55
William R. "Skip" Bowman	Vice President and President - Instrumentation Group	2016	62
Thomas C. Gentile	Vice President – Global Supply Chain	2017	48
Todd M. Leombruno	Vice President and Controller	2017	50
Joseph R. Leonti	Vice President, General Counsel and Secretary	2014	48
Robert W. Malone	Vice President and President – Filtration Group	2014	56
M. Craig Maxwell	Vice President – Chief Technology and Innovation Officer	2003	62
Dinu J. Parel	Vice President and Chief Information Officer	2018	40
Jennifer A. Parmentier	Vice President and President – Motion Systems Group	2015	53
Andrew D. Ross	Vice President and President – Fluid Connectors Group	2012	53
Roger S. Sherrard	Vice President and President – Aerospace Group	2003	54
Andrew M. Weeks	Vice President and President – Engineered Materials Group	2015	57

⁽¹⁾Executive officers are elected by the Board of Directors to serve for a term of one year or until their respective successors are elected, except in the case of death, resignation or removal. Messrs. Williams, Banks, Leonti, Malone, Maxwell and Sherrard have served in the executive capacities indicated above during each of the past five years.

Mr. Williams has been a Director since January 2015; Chief Executive Officer since February 2015; and Chairman of the Board since January 2016. He was an Executive Vice President from August 2008 to February 2015 and an Operating Officer from November 2006 to February 2015. He is also a Director of The Goodyear Tire & Rubber Company.

Mr. Banks has been a Director since January 2015 and President and Chief Operating Officer since February 2015. He was an Executive Vice President from August 2008 to February 2015 and an Operating Officer from November 2006 to February 2015. He is also a Director of Nordson Corporation.

Ms. Suever has been Executive Vice President - Finance & Administration and Chief Financial Officer since April 2017. She was Vice President and Controller from December 2010 to April 2017. She is also a director of Hexcel Corporation.

Mr. Hart has been Executive Vice President - Human Resources & External Affairs since January 2016. He was Vice President - Total Rewards from August 2013 to January 2016.

Mr. Bowman has been Vice President and President - Instrumentation Group since September 2016. He was Vice President, Operations - Filtration Group from March 2015 to August 2016; and Vice President, Operations - Fluid Connectors Group from November 2007 to February 2015.

Mr. Gentile has been Vice President - Global Supply Chain since July 2017. He was General Manager of the Company's domnick hunter Process Filtration Division from December 2013 to July 2017.

Mr. Leombruno has been Vice President and Controller since July 2017. He was Vice President and Controller - Engineered Materials Group from January 2015 to June 2017; and Director of Investor Relations from June 2012 to December 2014.

Mr. Leonti has been Vice President, General Counsel and Secretary since July 2014. He was Assistant Secretary from April 2011 to July 2014; and Associate General Counsel from January 2008 to July 2014.

Mr. Maxwell has been Vice President - Chief Technology and Innovation Officer since July 2003.

Mr. Malone has been Vice President and President of the Filtration Group since December 2014. He was Vice President - Operations of the Filtration Group from January 2013 to December 2014.

Mr. Parel has been Vice President and Chief Information Officer since October 2018. He was Vice President and Chief Information Officer at Dover Corporation from May 2016 through October 2018. Prior to Dover, he held several IT leadership roles at Baker Hughes from March 2010 to May 2016, including IT Integration Leader and Senior Director, IT North America.

Ms. Parmentier has been Vice President and President of the Motion Systems Group since February 2019. She was Vice President and President of the Engineered Materials Group from September 2015 to February 2019. She was General Manager of the Hose Products Division from May 2014 to September 2015; and General Manager of the Sporlan Division from May 2012 to May 2014.

Mr. Ross has been Vice President since July 2012 and President of the Fluid Connectors Group since September 2015. He was President of the Engineered Materials Group from July 2012 to September 2015.

Mr. Sherrard has been Vice President and President of the Aerospace Group since July 2012. He was President of the Automation Group from March 2005 to July 2012. Prior to that he was President of the Instrumentation Group and has been a Corporate Vice President since November 2003.

Mr. Weeks has been Vice President and President of the Engineered Materials Group since February 2019. He was Vice President and President of the Motion Systems Group from September 2015 to February 2019. He was Vice President - Operations of the Aerospace Group from April 2013 to September 2015.

ITEM 2. Properties. Our corporate headquarters is located in Cleveland, Ohio, and, at June 30, 2020, the Company maintained approximately 320 manufacturing plants. We also maintain various sales and administrative offices and distribution centers throughout the world. None of these manufacturing plants, administrative offices or distribution centers are individually material to our operations. The facilities are situated in 38 states within the United States and in 48 other countries. We own the majority of our manufacturing plants, and our leased properties primarily consist of sales and administrative offices and distribution centers.

We believe that our properties have been adequately maintained, are in good condition generally and are suitable and adequate for our business as presently conducted. The extent to which we utilize our properties varies by property and from time to time. We believe that our restructuring efforts have brought capacity levels closer to present and anticipated needs. Most of our manufacturing facilities remain capable of handling volume increases.

ITEM 3. Legal Proceedings. None.

ITEM 4. Mine Safety Disclosures. Not applicable.

PART II

ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

- (a) **Market for the Registrant's Common Equity.** The Company's common stock is listed for trading on the New York Stock Exchange ("NYSE") under the symbol "PH". As of July 31, 2020, the number of shareholders of record of the Company was 3,383.
- (b) **Use of Proceeds.** Not Applicable.
- (c) **Purchases of Equity Securities by the Issuer and Affiliated Purchasers.**

ISSUER PURCHASES OF EQUITY SECURITIES

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid Per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽¹⁾	(d) Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
April 1, 2020 through April 30, 2020	—	\$ —	—	10,028,239
May 1, 2020 through May 31, 2020	—	\$ —	—	10,028,239
June 1, 2020 through June 30, 2020	—	\$ —	—	10,028,239
Total	—	—	—	—

⁽¹⁾ On October 22, 2014, the Company publicly announced that the Board of Directors increased the overall maximum number of shares authorized for repurchase under this program so that, beginning on such date, the aggregate number of shares authorized for repurchase was 35 million shares. There is no limitation on the amount of shares that can be repurchased in a year. There is no expiration date for this program. In March 2020, the Company suspended the share repurchase program in response to business uncertainty resulting from the COVID-19 pandemic.

ITEM 6. Selected Financial Data. This selected financial data should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our Consolidated Financial Statements and accompanying notes included in Part II, Item 7 and Part II, Item 8, respectively, of this Annual Report on Form 10-K.

(Amounts in thousands, except per share information)	2020	2019	2018	2017	2016
Net sales	\$ 13,695,520	\$ 14,320,324	\$ 14,302,392	\$ 12,029,312	\$ 11,360,753
Net income attributable to common shareholders	1,206,341	1,512,364	1,060,801	983,412	806,840
Basic earnings per share	9.39	11.63	7.98	7.37	5.96
Diluted earnings per share	9.29	11.48	7.83	7.25	5.89
Cash dividends per share	3.52	3.16	2.74	2.58	2.52
Total assets	19,738,189	17,576,690	15,320,087	15,489,904	12,034,142
Long-term debt	7,652,256	6,520,831	4,318,559	4,861,895	2,652,457

ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Forward-Looking Statements

Forward-looking statements contained in this and other written and oral reports are made based on known events and circumstances at the time of release, and as such, are subject in the future to unforeseen uncertainties and risks. All statements regarding future performance, earnings projections, events or developments are forward-looking statements. It is possible that the future performance and earnings projections of the Company, including its individual segments, may differ materially from current expectations, depending on economic conditions within its mobile, industrial and aerospace markets, and the Company's ability to maintain and achieve anticipated benefits associated with announced realignment activities, strategic initiatives to improve operating margins, actions taken to combat the effects of the current economic environment, and growth, innovation and global diversification initiatives. Additionally, the actual impact of changes in tax laws in the United States and foreign jurisdictions and any judicial or regulatory interpretations thereof on future performance and earnings projections may impact the Company's tax calculations. A change in the economic conditions in individual markets may have a particularly volatile effect on segment performance.

Among other factors which may affect future performance are:

- global economic and political factors, including the impact of the global outbreak of COVID-19 and governmental and other actions taken in response, manufacturing activity, air travel trends, currency exchange rates and monetary policy, trade policy and tariffs, difficulties entering new markets and general economic conditions such as inflation, deflation, interest rates and credit availability, as well as uncertainties associated with the timing and conditions surrounding the return to service of the Boeing 737 MAX;
- our ability to identify acceptable strategic acquisition targets; uncertainties surrounding timing, successful completion or integration of acquisitions and similar transactions, including the integrations of Clarcor, Lord and EMFCO Holdings Incorporated, parent company of Exotic; and our ability to successfully divest businesses planned for divestiture and realize the anticipated benefits of such divestitures;
- our ability to effectively manage expanded operations from the acquisitions of Clarcor, Lord and Exotic;
- the determination to undertake business realignment activities and the expected costs thereof and, if undertaken, the ability to complete such activities and realize the anticipated cost savings from such activities;
- increased cybersecurity threats and sophisticated computer crime;
- business relationships with and purchases by or from major customers, suppliers or distributors, including delays or cancellations in shipments;
- the development of new products and technologies requiring substantial investment;
- availability, limitations or cost increases of raw materials, component products and/or commodities that cannot be recovered in product pricing;
- disputes regarding contract terms or significant changes in financial condition, changes in contract cost and revenue estimates for new development programs, and changes in product mix;
- uncertainties surrounding the ultimate resolution of outstanding legal and regulatory proceedings, including the outcome of any appeals;
- additional liabilities relating to changes in tax rates or exposure to additional income tax liabilities;
- potential product liability risks;
- our ability to enter into, own, renew and maintain intellectual property and know-how;
- our leverage and future debt service obligations;
- potential impairment of goodwill;
- compliance costs associated with environmental laws and climate change regulations;
- our ability to manage costs related to insurance and employee retirement and health care benefits;
- compliance with federal rules, regulations, audits and investigations associated with being a provider of products to the United States government; and
- our ability to implement successfully the Company's capital allocation initiatives, including timing, price and execution of share repurchases.

The Company makes these statements as of the date of the filing of its Annual Report on Form 10-K for the year ended June 30, 2020, and undertakes no obligation to update them unless otherwise required by law.

Overview

The Company is a leading worldwide diversified manufacturer of motion and control technologies and systems, providing precision engineered solutions for a wide variety of mobile, industrial and aerospace markets.

Our order rates provide a near-term perspective of the Company's outlook particularly when viewed in the context of prior and future order rates. The Company publishes its order rates on a quarterly basis. The lead time between the time an order is received and revenue is realized generally ranges from one day to 12 weeks for mobile and industrial orders and from one day to 18 months for aerospace orders. We believe the leading economic indicators of these markets that have a correlation to the Company's future order rates are as follows:

- Purchasing Managers Index ("PMI") on manufacturing activity specific to regions around the world with respect to most mobile and industrial markets;
- Global aircraft miles flown and global revenue passenger miles for commercial aerospace markets and Department of Defense spending for military aerospace markets; and
- Housing starts with respect to the North American residential air conditioning market and certain mobile construction markets.

A PMI above 50 indicates that the manufacturing activity specific to a region of the world in the mobile and industrial markets is expanding. A PMI below 50 indicates the opposite. Recent PMI levels for some regions around the world were as follows:

	June 30, 2020	March 31, 2020	June 30, 2019
United States	52.6	49.1	50.6
Eurozone countries	47.4	44.5	47.6
China	51.2	50.1	49.4
Brazil	51.6	48.4	51.0

Global aircraft miles flown decreased by approximately 45 percent and global revenue passenger miles decreased by approximately 52 percent from their comparable 2019 levels. The Company anticipates that U.S. Department of Defense spending with regard to appropriations and operations and maintenance for the U.S. Government's fiscal year 2020 will increase by approximately two percent from its fiscal 2019 level.

Housing starts in June 2020 were approximately two percent lower than housing starts in March 2020 and approximately four percent lower than housing starts in June 2019.

During 2020, the World Health Organization declared the recent outbreak COVID-19 a pandemic. Given the unpredictable nature of COVID-19's impact on the global economy, the statistics included above may not be reflective of recent or future activity.

We are actively monitoring the impact of the COVID-19 outbreak, which has negatively impacted, and we expect will continue to negatively impact, our business and results of operations. Disruption within the aerospace industry, which is facing the consequences of travel restrictions and considerably lower demand, was significant and is expected to continue. The ultimate extent to which our business and results of operations will be impacted by the outbreak will depend largely on future developments, which are highly uncertain and cannot be accurately predicted at this time, including new information which may emerge concerning the severity of the outbreak and actions by government authorities to contain the outbreak or mitigate its economic, public health and other impacts.

We took immediate and aggressive action to minimize the spread of COVID-19 in our workplaces and are taking measures to preserve cash and reduce costs, including but not limited to, global salary reductions, reduced work schedules, elimination of discretionary spending, targeted restructuring and limiting capital expenditures to safety-related issues and strategic investments. At the same time, we are appropriately addressing the ongoing needs of our business so that we may continue to serve our customers.

In the long-term, we believe many opportunities for profitable growth are available. The Company intends to focus primarily on business opportunities in the areas of energy, water, food, environment, defense, life sciences, infrastructure and transportation.

We believe we can meet our strategic objectives by:

- Serving the customer and continuously enhancing its experience with the Company;
- Successfully executing The Win Strategy initiatives relating to engaged people, premier customer experience, profitable growth and financial performance;
- Maintaining a decentralized division and sales company structure;
- Fostering a safety first and entrepreneurial culture;
- Engineering innovative systems and products to provide superior customer value through improved service, efficiency and productivity;
- Delivering products, systems and services that have demonstrable savings to customers and are priced by the value they deliver;
- Acquiring strategic businesses;
- Organizing around targeted regions, technologies and markets;
- Driving efficiency by implementing lean enterprise principles; and
- Creating a culture of empowerment through our values, inclusion and diversity, accountability and teamwork.

Acquisitions will be considered from time to time to the extent there is a strong strategic fit, while at the same time maintaining the Company's strong financial position. During 2020, the Company completed the Lord and Exotic acquisitions, which are further discussed in Note 3 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

We continue to assess our existing businesses and may initiate efforts to divest businesses that are not considered to be a good long-term strategic fit for the Company. Future business divestitures could have a negative effect on the Company's results of operations.

The discussion below is structured to separately discuss the financial statements presented in Part II, Item 8 of this Annual Report on Form 10-K. The term "year" and references to specific years refer to the applicable fiscal year. Discussion of the 2018 financial statements is included in Part II, Item 7 of the Company's 2019 Annual Report on Form 10-K.

CONSOLIDATED STATEMENT OF INCOME

The Consolidated Statement of Income summarizes the Company's operating performance. The discussion below compares the operating performance in 2020 and 2019.

(dollars in millions)	2020	2019
Net sales	\$ 13,696	\$ 14,320
Gross profit margin	24.9%	25.3%
Selling, general and administrative expenses	\$ 1,657	\$ 1,544
Selling, general and administrative expenses, as a percent of sales	12.1%	10.8%
Interest expense	\$ 308	\$ 190
Other (income) expense, net	(67)	(61)
(Gain) loss on disposal of assets	(1)	11
Effective tax rate	20.2%	21.7%
Net income attributable to common shareholders	\$ 1,206	\$ 1,512

Net sales in 2020 decreased from the 2019 amount due to lower volume in all segments, partially offset by an increase in sales from acquisitions made within the last 12 months of \$949 million. The effect of currency rate changes decreased net sales in 2020 by approximately \$167 million, of which \$152 million was attributable to the Diversified Industrial International operations.

Gross profit margin (calculated as net sales less cost of sales, divided by net sales) decreased slightly in 2020. Lower volume and current-year acquisition-related expenses of \$69 million were partially offset by lower operating costs resulting from current and prior-year business realignment, acquisition integration and simplification activities, lower raw material costs and favorable product mix. Additionally, cost of sales included business realignment and acquisition integration charges of \$60 million in 2020 compared to \$15 million in 2019. Gross profit margin in 2020 benefited from a foreign currency transaction gain of \$10 million compared to a loss of \$6 million in 2019.

Selling, general and administrative expenses ("SG&A") increased seven percent in 2020 primarily due to acquisition-related transaction costs of \$119 million in the current year compared to \$17 million in 2019 and higher intangible asset amortization expense related to the Lord and Exotic acquisitions. SG&A also included business realignment and acquisition integration charges of \$38 million and \$13 million in 2020 and 2019, respectively. These expenses were partially offset by a net benefit associated with the Company's deferred compensation plan and related investments. Additionally, SG&A benefited from lower discretionary spending and wage and salary expense as a result of actions taken in response to the current business conditions resulting from the COVID-19 outbreak.

Interest expense in 2020 increased due to a higher average interest rate and higher average debt outstanding.

Other (income) expense, net included the following:

(dollars in millions)	2020	2019
Expense (income)		
Income related to equity method investments	\$ (75)	\$ (93)
Non-service components of retirement benefit cost	49	40
Interest income	(31)	(18)
Other items, net	(10)	10
	<u>\$ (67)</u>	<u>\$ (61)</u>

(Gain) loss on disposal of assets in 2020 and 2019 includes gains on the sale of real estate of \$12 million and \$11 million, respectively, with the remainder relating to net losses on divestitures and asset sales and writedowns.

Effective tax rate in 2020 was lower than 2019 primarily due to favorable one-time adjustments that were recorded in the current year as a result of a favorable foreign audit settlement.

BUSINESS SEGMENT INFORMATION

The Business Segment information presents sales and operating income on a basis that is consistent with the manner in which the Company's various businesses are managed for internal review and decision-making.

Diversified Industrial Segment

(dollars in millions)	2020	2019
Sales		
North America	\$ 6,456	\$ 6,809
International	4,505	5,001
Operating income		
North America	986	1,139
International	675	805
Operating income as a percent of sales		
North America	15.3%	16.7%
International	15.0%	16.1%
Backlog	\$ 2,117	\$ 2,011

The Diversified Industrial Segment operations experienced the following percentage changes in net sales:

	2020
Diversified Industrial North America – as reported	(5.2)%
Acquisitions	6.0 %
Currency	(0.2)%
Diversified Industrial North America – without acquisitions and currency	(11.0)%
Diversified Industrial International – as reported	(9.9)%
Acquisitions	4.1 %
Currency	(3.1)%
Diversified Industrial International – without acquisitions and currency	(10.9)%
Total Diversified Industrial Segment – as reported	(7.2)%
Acquisitions	5.2 %
Currency	(1.4)%
Total Diversified Industrial Segment – without acquisitions and currency	(11.0)%

The above presentation reconciles the percentage changes in net sales of the Diversified Industrial Segment reported in accordance with U.S. GAAP to percentage changes in net sales adjusted to remove the effects of acquisitions made within the prior four fiscal quarters as well as the effects of currency exchange rates (a non-GAAP measure). The effects of acquisitions and currency exchange rates are removed to allow investors and the Company to meaningfully evaluate the percentage changes in net sales on a comparable basis from period to period.

Sales in 2020 for the Diversified Industrial North American operations decreased 5.2 percent from 2019. Acquisitions increased sales by \$408 million, and the effect of currency exchange rates decreased sales by approximately \$13 million. Excluding acquisitions and the effect of currency rate changes, sales in 2020 for the Diversified Industrial North American operations decreased 11.0 percent from prior-year levels reflecting lower demand from distributors and end users in virtually all markets, including the construction equipment, cars and light truck, heavy-duty truck, engines, refrigeration and general industrial machinery markets. This decrease was partially offset by an increase in end-user demand in the life sciences market.

Sales in the Diversified Industrial International operations decreased 9.9 percent in 2020. Acquisitions increased sales by approximately \$203 million in 2020. The effect of currency rate changes decreased sales by \$152 million, reflecting the strengthening of the U.S. dollar primarily against currencies in the Eurozone countries, China, Brazil, and South Korea. Excluding acquisitions and the effect of currency rate changes, sales in 2020 for the Diversified Industrial International operations decreased 10.9 percent from 2019 levels primarily due to lower demand from distributors and end users in both the mobile and industrial markets. During 2020, Europe, the Asia Pacific region, and Latin America accounted for approximately 68 percent, 28 percent, and four percent, respectively, of the decrease in sales.

Within Europe, the decrease in sales was primarily due to lower demand from distributors and end users in the construction equipment, general industrial machinery, machine tool, heavy-duty truck and cars and light truck markets.

Within the Asia Pacific region, the decrease in sales was primarily due to lower demand from distributors as well as end users in the construction equipment, railroad equipment, telecommunications and machine tool markets. This decrease was partially offset by an increase in end-user demand in the semiconductor, mining and engine markets.

The decrease in sales in Latin America was primarily due to lower demand from distributors and end users in the construction equipment, farm and agricultural equipment and cars and light truck markets, partially offset by an increase in end-user demand in the oil and gas market.

Operating margins in 2020 decreased in both the Diversified Industrial North American and International operations primarily due to lower sales volume, acquisition-related expenses, higher intangible asset amortization expense, and higher business realignment and acquisition integration costs. These costs were partially offset by lower discretionary spending, lower wage and salary expense, favorable product mix, lower raw material costs, benefits from current-year and prior-year business realignment and simplification actions, and prior-year pricing actions.

The following business realignment and acquisition integration charges are included in Diversified Industrial North America and Diversified Industrial International operating income:

(dollars in millions)	2020	2019
Diversified Industrial North America	\$ 41	\$ 13
Diversified Industrial International	32	15

The business realignment charges consist primarily of severance and plant closure costs related to actions taken under the Company's simplification initiative aimed at reducing organizational and process complexity, which is being implemented by its operating units throughout the world. Current-year acquisition integration charges relate to the Lord acquisition. Prior-year acquisition integration charges relate to the 2017 acquisition of Clarcor. During 2020, business realignment charges also include permanent workforce reductions to address the impact of COVID-19 on our business. The majority of the Diversified Industrial International business realignment and acquisition integration charges were incurred in Europe. We anticipate that cost savings realized from the workforce reduction measures taken during 2020 will increase operating income for 2021 by approximately five percent in the Diversified Industrial North American operations and by approximately two percent in the Diversified Industrial International operations. In 2021, we expect to continue to take actions necessary to structure appropriately the operations of the Diversified Industrial Segment. These actions are expected to result in approximately \$53 million in business realignment charges in 2021. However, continually changing business conditions could impact the ultimate costs we incur.

The increase in Diversified Industrial Segment backlog in 2020 was primarily due to the current-year acquisition of Lord, partially offset by shipments exceeding orders in both the North American and International businesses. Within the International business, this decrease in backlog was primarily related to shipments exceeding orders in both Europe and Latin America, partially offset by orders exceeding shipments in the Asia Pacific region. Backlog consists of written firm orders from a customer to deliver products and, in the case of blanket purchase orders, only includes the portion of the order for which a schedule or release date has been agreed to with the customer. The dollar value of backlog is equal to the amount that is expected to be billed to the customer and reported as a sale.

Aerospace Systems Segment

(dollars in millions)	2020	2019
Sales	\$ 2,735	\$ 2,511
Operating income	477	488
Operating income as a percent of sales	17.4%	19.4%
Backlog	\$ 3,021	\$ 2,209

Sales in 2020 were higher than the 2019 level primarily due to \$338 million of sales from current-year acquisitions and higher volume in the military OEM and aftermarket businesses, partially offset by lower volume in the commercial OEM and aftermarket businesses.

Operating margin decreased in 2020 primarily due to lower sales volume in the commercial OEM and aftermarket businesses, unfavorable product mix, acquisition-related expenses, higher intangible asset amortization expense and current-year business realignment and acquisition integration charges of \$24 million. The halt in production of the Boeing 737 MAX also contributed to lower operating margin during 2020. These expenses were partially offset by lower engineering development expenses, lower discretionary spending and savings from the current-year business realignment and acquisition integration actions.

As a result of the disruption in the aerospace industry due to the COVID-19 pandemic, we expect to continue to take the actions necessary to structure appropriately the operations of the Aerospace Systems Segment. These actions are expected to result in approximately \$12 million of business realignment charges in 2021. However, continually changing business conditions could impact the ultimate costs we incur. We anticipate that cost savings realized from the workforce reduction measures taken during 2020 will increase operating income for 2021 by approximately 13 percent.

The increase in backlog in 2020 was primarily due to the addition of Exotic backlog in the current year and orders exceeding shipments in the military OEM and aftermarket businesses, partially offset by shipments exceeding orders in the commercial OEM and aftermarket businesses. Backlog consists of written firm orders from a customer to deliver products and, in the case of blanket purchase orders, only includes the portion of the order for which a schedule or release date has been agreed to with the customer. The dollar value of backlog is equal to the amount that is expected to be billed to the customer and reported as a sale.

Corporate general & administrative expenses

(dollars in millions)

Expense (income)	2020	2019
Corporate general and administrative expense	\$ 171	\$ 195
Corporate general and administrative expense, as a percent of sales	1.2%	1.4%

Corporate general and administrative expenses decreased in 2020 primarily due to a net benefit related to the Company's deferred compensation plan and related investments. Additionally, corporate general and administrative expenses benefited from lower discretionary spending and wage and salary expense as a result of actions taken in response to the current business conditions resulting from the COVID-19 outbreak.

Other expense (in the Business Segment Information)

(dollars in millions)

Expense (income)	2020	2019
Foreign currency transaction	\$ (10)	\$ 6
Stock-based compensation	52	52
Pensions	30	20
Acquisition expenses	119	17
Divestitures and asset sales and writedowns, net	(1)	11
Interest income	(31)	(18)
Other items, net	(13)	25
	<u>\$ 146</u>	<u>\$ 113</u>

Foreign currency transaction primarily relates to the impact of changes in foreign exchange rates on cash, marketable securities and other investments and intercompany transactions. Acquisition expenses relate to the acquisitions of Lord and Exotic.

CONSOLIDATED BALANCE SHEET

The Consolidated Balance Sheet shows the Company's financial position at year end, compared with the previous year end. This discussion provides information to assist in assessing factors such as the Company's liquidity and financial resources.

(dollars in millions)

	2020	2019
Cash	\$ 756	\$ 3,371
Trade accounts receivable, net	1,854	2,131
Inventories	1,815	1,678
Intangible assets, net	3,799	1,783
Goodwill	7,870	5,454
Notes payable and long-term debt payable within one year	810	587
Long-term debt	7,652	6,521
Shareholders' equity	6,114	5,962
Working capital	\$ 1,737	\$ 4,521
Current ratio	1.6	2.4

Cash (comprised of cash and cash equivalents and marketable securities and other investments) includes \$726 million and \$975 million held by the Company's foreign subsidiaries at June 30, 2020 and 2019, respectively. The Company has determined it will no longer permanently reinvest certain foreign earnings. The distribution of these earnings could result in non-federal U.S. or foreign taxes. All other undistributed foreign earnings remain permanently reinvested. Refer to Note 5 to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for further discussion.

Trade accounts receivable, net are receivables due from customers for sales of product. Days sales outstanding relating to trade receivables for the Company was 54 days in 2020 and 53 days in 2019. We believe that our receivables are collectible and appropriate allowances for doubtful accounts have been recorded.

Inventories as of June 30, 2020 increased by \$136 million (which includes an increase of \$363 million from acquisitions and a decrease of \$26 million from the effect of foreign currency translation). After consideration of the effects of acquisitions and foreign currency translation, inventories decreased primarily due to a decrease in the Diversified Industrial Segment, partially offset by an increase in the Aerospace Systems Segment. Days supply of inventory on hand was 89 days in 2020 and 69 days in 2019.

Intangible assets, net and Goodwill increased from 2019 primarily due to the current-year acquisitions of Lord and Exotic. Refer to Note 3 to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for further discussion.

Notes payable and long-term debt payable within one year increased from 2019 primarily due to higher commercial paper notes outstanding of which a portion was used to finance the purchase of the Lord and Exotic acquisitions. Refer to Note 9 to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for further discussion.

Long-term debt increased from 2019 primarily due to outstanding term loans related to the acquisition of Lord and Exotic. Refer to Note 10 to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for further discussion.

Shareholders' equity activity during 2020 included a decrease of \$147 million related to share repurchases, a decrease of \$318 million related to pensions and postretirement benefits resulting from net actuarial losses due to a decrease in discount rates and a decrease of \$182 million related to foreign currency translation adjustments.

CONSOLIDATED STATEMENT OF CASH FLOWS

The Consolidated Statement of Cash Flows reflects cash inflows and outflows from the Company's operating, investing and financing activities.

A summary of cash flows follows:

(dollars in millions)	2020	2019
Cash provided by (used in):		
Operating activities	\$ 2,071	\$ 1,730
Investing activities	(5,024)	(219)
Financing activities	449	902
Effect of exchange rates	(30)	(16)
Net (decrease) increase in cash and cash equivalents	<u>\$ (2,534)</u>	<u>\$ 2,397</u>

Cash flows from operating activities in 2020 reflects a decrease in net income of \$306 million and an increase of \$327 million from cash provided by working capital items. The Company also made a discretionary cash contribution to the Company's domestic qualified defined benefit plan of \$200 million in 2019.

Cash flows from investing activities in 2020 includes \$5,076 million of acquisition-related activity for Lord and Exotic. It also includes \$121 million of proceeds from the redemption of company-owned life insurance investments associated with the Company's deferred compensation programs as well proceeds of \$44 million related to the settlement of a cross currency swap.

Cash flows from financing activities includes proceeds from the \$925 million and \$800 million term loans related to the acquisition of Exotic and Lord, respectively. It also includes repayment of long-term debt of approximately \$740 million, of which approximately \$221 million relates to acquired Lord debt. Refer to Note 10 to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for further discussion. The Company repurchased 0.8 million common shares for \$147 million during 2020 compared to the repurchase of 4.8 million common shares for \$800 million in 2019.

Dividends have been paid for 280 consecutive quarters, including a yearly increase in dividends for the last 64 years. The current annual dividend rate is \$3.52 per common share.

Our goal is to maintain a strong investment-grade credit profile. The rating agencies periodically update our credit ratings as events occur. At June 30, 2020, the long-term credit ratings assigned to the Company's senior debt securities by the credit rating agencies engaged by the Company were as follows:

Fitch Ratings	BBB+
Moody's Investor Services, Inc.	Baa1
Standard & Poor's	BBB+

During 2020, we have taken several meaningful measures to strengthen our liquidity position in light of the COVID-19 pandemic, including limiting capital expenditures to safety-related issues and strategic investments, the suspension of our share repurchase program and other cost reduction efforts. Although we cannot reasonably estimate the duration of the pandemic or its impact on our business, we believe these measures, as well as access to committed credit under our credit agreement, position the Company well to manage through the current economic uncertainty and capitalize on our position as the global leader in motion and control technologies as the economy recovers.

During 2020, the Company amended and extended its existing multi-currency credit agreement, increasing its capacity to \$2,500 million. As of June 30, 2020, the Company had \$1,777 million available for borrowing under the credit agreement. The credit agreement expires in September 2024; however, the Company has the right to request a one-year extension of the expiration date on an annual basis, which request may result in changes to the current terms and conditions of the credit agreement. Advances from the credit agreement can be used for general corporate purposes, including acquisitions, and for the refinancing of existing indebtedness. The credit agreement requires the payment of an annual facility fee, the amount of which is dependent upon the Company's credit ratings. Although a lowering of the Company's credit ratings would increase the cost of future debt, it would not limit the Company's ability to use the credit agreement nor would it accelerate the repayment of any outstanding borrowings. Refer to Note 9 to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for further discussion.

The Company is currently authorized to sell up to \$2,500 million of short-term commercial paper notes. There were \$724 million outstanding commercial paper notes as of June 30, 2020, and the largest amount of commercial paper notes outstanding during the last quarter of 2020 was \$1,089 million.

The Company's credit agreements and indentures governing certain debt securities contain various covenants, the violation of which would limit or preclude the use of the credit agreements for future borrowings, or might accelerate the maturity of the related outstanding borrowings covered by the indentures. Based on the Company's rating level at June 30, 2020, the most restrictive financial covenant provides that the ratio of debt to debt-shareholders' equity cannot exceed 0.65 to 1.0. At June 30, 2020, the Company's debt to debt-shareholders' equity ratio was 0.58 to 1.0. We are in compliance and expect to remain in compliance with all covenants set forth in the credit agreement and indentures.

Contractual Obligations - The total amount of gross unrecognized tax benefits, including interest, for uncertain tax positions was \$101 million at June 30, 2020. Payment of these obligations would result from settlements with worldwide taxing authorities. Due to the difficulty in determining the timing of the settlements, these obligations are not included in the following summary of the Company's fixed contractual obligations. References to Notes are to the Notes to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

(dollars in millions)	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Contractual obligations					
Transition tax payments related to U.S. Tax Cuts and Jobs Act ("TCJ Act") (Note 5)	\$ 176	\$ —	\$ 12	\$ 96	\$ 68
Long-term debt (Note 10)	7,814	87	675	2,615	4,437
Interest on long-term debt	3,527	258	498	411	2,360
Operating leases (Note 11)	149	46	55	24	24
Retirement benefits (Note 12)	118	77	11	10	20
Total	\$ 11,784	\$ 468	\$ 1,251	\$ 3,156	\$ 6,909

OFF-BALANCE SHEET ARRANGEMENTS

The Company does not have off-balance sheet arrangements.

CRITICAL ACCOUNTING POLICIES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The policies discussed below are considered by management to be more critical than other policies because their application places the most significant demands on management's judgment.

Revenue Recognition - Revenues are recognized when control of performance obligations, which are distinct goods or services within the contract, is transferred to the customer. Control is transferred when the customer has the ability to direct the use of and obtain the benefits from the goods or services. A majority of our revenues are recognized at a point in time when control is transferred to the customer, which is generally at the time of shipment. However, a portion of our revenues are recognized over time if the customer simultaneously receives control as we perform work under a contract, if the customer controls the asset as it is being produced, or if the product has no alternative use and we have a contractual right to payment.

For contracts where revenue is recognized over time, we use the cost-to-cost, efforts expended or units of delivery method depending on the nature of the contract, including length of production time. The estimation of these costs and efforts expended requires judgment on the part of management due to the duration of the contractual agreements as well as the technical nature of the products involved. Adjustments to these estimates are made on a consistent basis and a contract reserve is established when the estimated costs to complete a contract exceed the expected contract revenues.

When there are multiple performance obligations within a contract, the transaction price is allocated to each performance obligation based on its standalone selling price. The primary method used to estimate a standalone selling price is the price observed in standalone sales to customers for the same product or service. Revenue is recognized when control of the individual performance obligations is transferred to the customer.

We consider the contractual consideration payable by the customer and assesses variable consideration that may affect the total transaction price. Variable consideration is included in the estimated transaction price when there is a basis to reasonably estimate the amount, including whether the estimate should be constrained in order to avoid a significant reversal of revenue in a future period. These estimates are based on historical experience, anticipated performance under the terms of the contract and our best judgment at the time.

Impairment of Goodwill and Long-Lived Assets - We test goodwill for impairment at the reporting unit level on an annual basis and between annual tests whenever events or circumstances indicate the carrying value of a reporting unit may exceed its fair value. Our six reporting units are equivalent to our operating segments. As quoted market prices are not available for our reporting units, determining whether an impairment occurred requires the valuation of the respective reporting unit, which is

estimated using both income-based and market-based valuation methods. The income-based valuation method utilizes a discounted cash flow model which requires several assumptions, including future sales growth and operating margin levels as well as assumptions regarding future industry-specific market conditions. Each reporting unit regularly prepares discrete operating forecasts and uses these forecasts as the basis for the assumptions in the discounted cash flow analysis. Within the discounted cash flow models, the Company uses a discount rate, commensurate with its cost of capital but adjusted for inherent business risks, and an appropriate terminal growth factor. The market-based valuation performed for each reporting unit includes an analysis consisting of market-adjusted multiples based on key data points for guideline public companies. We also reconcile the estimated aggregate fair value of our reporting units resulting from these procedures to our overall market capitalization.

At December 31, 2019, the Company performed its annual goodwill impairment test for each of its six reporting units. The results of this test indicated the fair value substantially exceeded carrying value for all reporting units. We continually monitor our reporting units for impairment indicators and update assumptions used in the most recent calculation of the fair value of a reporting unit as appropriate. We did not identify any events or circumstances during 2020 that required performance of an interim impairment test. However, the effects of COVID-19 on the global economy, including further market disruption, lack of economic recovery or lower than anticipated customer demand, may require the performance of additional goodwill impairment tests, and the estimated fair value of certain reporting units could fall below their carrying value.

Long-lived assets held for use, which primarily includes finite-lived intangible assets and plant and equipment, are evaluated for impairment whenever events or circumstances indicate that the undiscounted net cash flows to be generated by their use over their expected useful lives and eventual disposition are less than their carrying value. The long-term nature of these assets requires the estimation of their cash inflows and outflows several years into the future and only takes into consideration technological advances known at the time of the impairment test. During 2020, the Company did not record any material impairment related to long-lived assets.

Pensions - The annual net periodic expense and benefit obligations related to the Company's defined benefit plans are determined on an actuarial basis. This determination requires critical assumptions regarding the discount rate, long-term rate of return on plan assets, increases in compensation levels and amortization periods for actuarial gains and losses. Assumptions are determined based on Company data and appropriate market indicators and are evaluated each year as of the plans' measurement date. Changes in the assumptions to reflect actual experience as well as the amortization of actuarial gains and losses could result in a material change in the annual net periodic expense and benefit obligations reported in the financial statements.

For the Company's domestic qualified defined benefit plan, a 50 basis point change in the assumed long-term rate of return on plan assets is estimated to have a \$17 million effect on annual pension expense and a 50 basis point decrease in the discount rate is estimated to increase annual pension expense by \$28 million. As of June 30, 2020, \$1,456 million of past years' net actuarial losses related to the Company's domestic qualified defined benefit plan are subject to amortization in the future. These losses will generally be amortized over approximately seven years and will negatively affect earnings in the future. Any actuarial gains experienced in future years will help reduce the effect of the net actuarial loss amortization. Further information on pensions is provided in Note 12 to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

Income Taxes - Significant judgment is required in determining the Company's income tax expense and in evaluating tax positions. Deferred income tax assets and liabilities have been recorded for the differences between the financial accounting and income tax basis of assets and liabilities. Factors considered by the Company in determining the probability of realizing deferred income tax assets include forecasted operating earnings, available tax planning strategies and the time period over which the temporary differences will reverse. The Company reviews its tax positions on a regular basis and adjusts the balances as new information becomes available. For those tax positions where it is more likely than not that a tax benefit will be sustained, the largest amount of tax benefit with a greater than 50 percent likelihood of being realized upon examination by a taxing authority that has full knowledge of all relevant information will be recorded. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit has been recognized in the Consolidated Financial Statements. Further information on income taxes is provided in Note 5 to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

Loss Contingencies - The Company has a number of loss exposures incurred in the ordinary course of business such as environmental claims, product liability and litigation reserves. Establishing loss accruals for these matters requires management's estimate and judgment with regards to risk exposure and ultimate liability or realization. We review these loss accruals periodically and make adjustments to reflect the most recent facts and circumstances.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

Recently issued accounting pronouncements are described in Note 1 to the Consolidated Financial Statements, included in Part II, Item 8 of this Annual Report on Form 10-K.

ITEM 7A. Quantitative and Qualitative Disclosures About Market Risk.

The Company manages foreign currency transaction and translation risk by utilizing derivative and non-derivative financial instruments, including forward exchange contracts, costless collar contracts, cross-currency swap contracts and certain foreign denominated debt designated as net investment hedges. The derivative financial instrument contracts are with major investment grade financial institutions and we do not anticipate any material non-performance by any of the counterparties. The Company does not hold or issue derivative financial instruments for trading purposes.

Derivative financial instruments are recognized on the Consolidated Balance Sheet as either assets or liabilities and are measured at fair value. Further information on the fair value of these contracts is provided in Part II, Item 8 of this Annual Report on Form 10-K. Derivatives that are not designated as hedges are adjusted to fair value by recording gains and losses through the Consolidated Statement of Income. Derivatives that are designated as hedges are adjusted to fair value by recording gains and losses through accumulated other comprehensive income (loss) in the Consolidated Balance Sheet until the hedged item is recognized in earnings. For cross-currency swaps measured using the spot method, the periodic interest settlements are recognized directly in earnings through interest expense. The translation of the foreign denominated debt that has been designated as a net investment hedge is recorded in accumulated other comprehensive income (loss) and remains there until the underlying net investment is sold or substantially liquidated.

The Company's debt portfolio contains variable rate debt, inherently exposing the Company to interest rate risk. The Company's objective is to maintain a 60/40 mix between fixed rate and variable rate debt thereby limiting its exposure to changes in near-term interest rates. A 100 basis point increase in near-term interest rates would increase annual interest expense on variable rate debt existing at June 30, 2020 by approximately \$24 million.

As discussed elsewhere in this report, the recent outbreak of COVID-19 has negatively impacted and we expect it to continue to negatively impact our business and results of operations. As we cannot predict the ultimate duration or scope of the COVID-19 pandemic, the ultimate negative financial impact to our results cannot be reasonably estimated, but could be material.

ITEM 8. Financial Statements and Supplementary Data.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Parker-Hannifin Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Parker-Hannifin Corporation and subsidiaries (the "Company") as of June 30, 2020 and 2019, the related consolidated statements of income, comprehensive income, equity, and cash flows, for each of the three years in the period ended June 30, 2020, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of June 30, 2020, 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 financial statements referred to above present fairly, in all material respects, the financial position of the Company as of June 30, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended June 30, 2020, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of June 30, 2020, based on criteria established in Internal Control - Integrated Framework (2013) issued by COSO.

As described in Management's Report on Internal Control Over Financial Reporting, management excluded from its assessment the internal control over financial reporting at two entities which were acquired within the fiscal year, and whose financial statements constitute approximately 28% of total assets and 7% of net sales for the year ended June 30, 2020. Accordingly, our audit did not include the internal control over financial reporting over these acquired entities.

Basis for Opinions

The Company's management is responsible for these financial statements, 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 these financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures to 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. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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.

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.

Acquisitions - Valuation of intangible assets acquired via the acquisition of Exotic Metals Forming Co. & LORD Corporation - Refer to Note 3 to the financial statements

Critical Audit Matter Description

The Company completed the acquisitions of Exotic Metals Forming Company for \$1.706 billion on September 16, 2019 and LORD Corporation for \$3.455 billion on October 29, 2019. The Company accounted for the acquisitions under the acquisition method of accounting for business combinations. Accordingly, the purchase price was primarily allocated to the assets acquired and liabilities assumed based on their respective fair values, including customer-related and technology intangible assets. Management estimated the fair value of these intangible assets utilizing an income approach. The fair value determination of the customer-related and technology intangible assets required management to make significant assumptions related to the forecasted revenue growth rates and the selection of the discount rates.

We identified the customer-related and technology intangible assets for the Exotic and LORD acquisitions as a critical audit matter because of the significant assumptions management makes to fair value these assets. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of management's assumptions related to the revenue growth rates and the selection of the discount rates utilized to value these intangible assets.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the revenue growth rates and the selection of the assumptions for the intangible assets acquired included the following, among others:

- We tested the effectiveness of controls over the valuation of the intangible assets acquired, including management's controls over the revenue growth rates and selection of the discount rates.
- We assessed the reasonableness of the revenue growth rates by comparing the assumptions used in the projections to external market sources, historical data, and results from other areas of the audit.
- We performed qualitative and quantitative analyses to identify the assumptions that would significantly impact the overall valuation of the intangible assets acquired. The assumptions identified included (1) revenue growth rate and (2) discount rate.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodology and (2) discount rates by:
 - Testing the source information underlying the determination of the discount rates and testing the mathematical accuracy of the calculation.
 - Developing a range of independent estimates and comparing those to the discount rates selected by management.
- We assessed the reasonableness of the revenue growth rates by comparing the assumptions used in the projections to external market sources, historical data, and results from other areas of the audit.

/s/ **DELOITTE & TOUCHE, LLP**

Cleveland, Ohio

August 26, 2020

We have served as the Company's auditor since 2008.

CONSOLIDATED STATEMENT OF INCOME

(Dollars in thousands, except per share amounts)	For the years ended June 30,		
	2020	2019	2018
Net Sales	\$ 13,695,520	\$ 14,320,324	\$ 14,302,392
Cost of sales	10,286,518	10,703,484	10,737,745
Selling, general and administrative expenses	1,656,553	1,543,939	1,639,989
Interest expense	308,161	190,138	213,873
Other (income) expense, net	(67,112)	(61,247)	12,991
(Gain) loss on disposal of assets (Note 3)	(1,227)	10,585	(4,483)
Income before income taxes	1,512,627	1,933,425	1,702,277
Income taxes (Note 5)	305,924	420,494	640,962
Net Income	1,206,703	1,512,931	1,061,315
Less: Noncontrolling interest in subsidiaries' earnings	362	567	514
Net Income Attributable to Common Shareholders	\$ 1,206,341	\$ 1,512,364	\$ 1,060,801
Earnings per Share Attributable to Common Shareholders (Note 6)			
Basic earnings per share	\$ 9.39	\$ 11.63	\$ 7.98
Diluted earnings per share	\$ 9.29	\$ 11.48	\$ 7.83

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(Dollars in thousands)	For the years ended June 30,		
	2020	2019	2018
Net Income	\$ 1,206,703	\$ 1,512,931	\$ 1,061,315
Less: Noncontrolling interests in subsidiaries' earnings	362	567	514
Net income attributable to common shareholders	1,206,341	1,512,364	1,060,801
Other comprehensive (loss) income, net of tax			
Foreign currency translation adjustment and other (net of tax of \$4,820, \$709 and \$16,964 in 2020, 2019 and 2018)	(182,957)	(66,392)	(18,575)
Retirement benefits plan activity (net of tax of \$97,477, \$71,821 and \$(82,506) in 2020, 2019 and 2018)	(317,546)	(227,783)	179,253
Other comprehensive (loss) income	(500,503)	(294,175)	160,678
Less: Other comprehensive (loss) income for noncontrolling interests	(676)	53	(440)
Other comprehensive (loss) income attributable to common shareholders	(499,827)	(294,228)	161,118
Total Comprehensive Income Attributable to Common Shareholders	\$ 706,514	\$ 1,218,136	\$ 1,221,919

The accompanying notes are an integral part of the consolidated financial statements.

BUSINESS SEGMENT INFORMATION

(Dollars in thousands)	2020	2019	2018
Net Sales:			
Diversified Industrial:			
North America	\$ 6,456,298	\$ 6,808,948	\$ 6,726,900
International	4,504,587	5,000,599	5,259,793
Aerospace Systems	2,734,635	2,510,777	2,315,699
	<u>\$ 13,695,520</u>	<u>\$ 14,320,324</u>	<u>\$ 14,302,392</u>
Segment Operating Income:			
Diversified Industrial:			
North America	\$ 985,944	\$ 1,138,586	\$ 1,076,021
International	674,763	804,890	765,188
Aerospace Systems	476,900	487,757	397,970
Total segment operating income	2,137,607	2,431,233	2,239,179
Corporate administration	170,903	194,994	200,901
Income before interest expense and other expense	1,966,704	2,236,239	2,038,278
Interest expense	308,161	190,138	213,873
Other expense	145,916	112,676	122,128
Income before income taxes	<u>\$ 1,512,627</u>	<u>\$ 1,933,425</u>	<u>\$ 1,702,277</u>
Assets:			
Diversified Industrial	\$ 15,973,576	\$ 13,189,204	\$ 13,368,619
Aerospace Systems ^(a)	3,251,522	1,546,053	1,446,745
Corporate	513,091	2,841,433	504,723
	<u>\$ 19,738,189</u>	<u>\$ 17,576,690</u>	<u>\$ 15,320,087</u>
Property Additions:			
Diversified Industrial	\$ 183,981	\$ 172,348	\$ 196,469
Aerospace Systems	44,546	20,748	15,225
Corporate	4,064	1,993	35,973
	<u>\$ 232,591</u>	<u>\$ 195,089</u>	<u>\$ 247,667</u>
Depreciation:			
Diversified Industrial	\$ 218,092	\$ 203,144	\$ 211,648
Aerospace Systems	27,749	16,268	16,737
Corporate	7,058	6,263	9,421
	<u>\$ 252,899</u>	<u>\$ 225,675</u>	<u>\$ 237,806</u>
Amortization:			
Diversified Industrial	\$ 243,714	\$ 196,680	\$ 212,742
Aerospace Systems	40,918	3,072	2,939
	<u>\$ 284,632</u>	<u>\$ 199,752</u>	<u>\$ 215,681</u>

(Dollars in thousands)	2020	2019	2018
By Geographic Area^(b)			
Net Sales:			
North America	\$ 9,166,773	\$ 9,318,195	\$ 8,978,490
International	4,528,747	5,002,129	5,323,902
	<u>\$ 13,695,520</u>	<u>\$ 14,320,324</u>	<u>\$ 14,302,392</u>
Long-Lived Assets:			
North America	\$ 1,494,858	\$ 1,052,263	\$ 1,103,308
International	797,877	716,024	752,929
	<u>\$ 2,292,735</u>	<u>\$ 1,768,287</u>	<u>\$ 1,856,237</u>

The accounting policies of the business segments are the same as those described in the Significant Accounting Policies footnote except that the business segment results are prepared on a basis that is consistent with the manner in which the Company's management disaggregates financial information for internal review and decision-making.

^(a) Includes an investment in a joint venture in which ownership is 50 percent or less and in which the Company does not have operating control (2020 - \$237,911; 2019 - \$234,703; 2018 - \$235,665).

^(b) Net sales are attributed to countries based on the location of the selling unit. North America includes the United States, Canada and Mexico. No country other than the United States represents greater than 10 percent of consolidated sales. Long-lived assets are comprised of plant and equipment based on physical location.

CONSOLIDATED BALANCE SHEET

(Dollars in thousands)

June 30,	2020	2019
Assets		
Current Assets		
Cash and cash equivalents (Note 1)	\$ 685,514	\$ 3,219,767
Marketable securities and other investments (Note 1)	70,805	150,931
Trade accounts receivable, net (Note 1)	1,854,398	2,131,054
Non-trade and notes receivable (Note 1)	244,870	310,708
Inventories (Note 7)	1,814,631	1,678,132
Prepaid expenses and other	214,986	182,494
Total Current Assets	4,885,204	7,673,086
Plant and equipment (Note 1)	5,810,681	5,186,730
Less: Accumulated depreciation	3,517,946	3,418,443
Plant and equipment, net	2,292,735	1,768,287
Deferred income taxes (Notes 1 and 5)	126,839	150,462
Investments and other assets (Note 1)	764,563	747,773
Intangible assets, net (Notes 1 and 8)	3,798,913	1,783,277
Goodwill (Notes 1 and 8)	7,869,935	5,453,805
Total Assets	\$ 19,738,189	\$ 17,576,690
Liabilities and Equity		
Current Liabilities		
Notes payable and long-term debt payable within one year (Notes 9 and 10)	\$ 809,529	\$ 587,014
Accounts payable, trade	1,111,759	1,413,155
Accrued payrolls and other compensation	424,231	426,285
Accrued domestic and foreign taxes	195,314	167,312
Other accrued liabilities	607,540	558,007
Total Current Liabilities	3,148,373	3,151,773
Long-term debt (Note 10)	7,652,256	6,520,831
Pensions and other postretirement benefits (Note 12)	1,887,414	1,304,379
Deferred income taxes (Notes 1 and 5)	382,528	193,066
Other liabilities	539,089	438,489
Total Liabilities	13,609,660	11,608,538
Equity (Note 13)		
Shareholders' Equity		
Serial preferred stock, \$.50 par value, authorized 3,000,000 shares; none issued	—	—
Common stock, \$.50 par value, authorized 600,000,000 shares; issued 181,046,128 shares in 2020 and 2019	90,523	90,523
Additional capital	416,585	462,086
Retained earnings	13,530,666	12,777,538
Accumulated other comprehensive (loss)	(2,558,875)	(2,059,048)
Treasury shares at cost: 52,490,165 in 2020 and 52,566,086 in 2019	(5,364,916)	(5,309,130)
Total Shareholders' Equity	6,113,983	5,961,969
Noncontrolling interests	14,546	6,183
Total Equity	6,128,529	5,968,152
Total Liabilities and Equity	\$ 19,738,189	\$ 17,576,690

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

(Dollars in thousands)	For the years ended June 30,		
	2020	2019	2018
Cash Flows From Operating Activities			
Net income	\$ 1,206,703	\$ 1,512,931	\$ 1,061,315
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	252,899	225,675	237,806
Amortization	284,632	210,514	228,279
Stock incentive plan compensation	111,375	104,078	118,831
Deferred income taxes	13,692	32,537	(41,412)
Foreign currency transaction (gain) loss	(10,018)	5,888	7,284
(Gain) loss on sale of plant and equipment	(1,850)	5,091	(24,422)
Loss on sale of businesses	—	5,854	19,666
(Gain) loss on sale and impairment of investments	(2,084)	(16,749)	41,219
(Gain) loss on sale of marketable securities	(587)	7,563	(2)
Other	17,984	—	—
Changes in assets and liabilities, net of effects from acquisitions:			
Accounts receivable	578,853	2,452	(301,978)
Inventories	201,164	(51,817)	(92,209)
Prepaid expenses	(9,312)	(33,335)	(16,206)
Other assets	(23,547)	2,677	(16,880)
Accounts payable, trade	(370,765)	(12,397)	125,907
Accrued payrolls and other compensation	(62,715)	2,088	(4,614)
Accrued domestic and foreign taxes	30,918	(30,593)	44,019
Other accrued liabilities	(148,531)	16,698	(5,567)
Pensions and other postretirement benefits	55,522	(168,368)	31,239
Other liabilities	(53,384)	(90,647)	184,425
Net cash provided by operating activities	2,070,949	1,730,140	1,596,700
Cash Flows From Investing Activities			
Acquisitions (net of cash acquired of \$82,192 in 2020 and \$690 in 2019)	(5,076,064)	(2,042)	—
Capital expenditures	(232,591)	(195,089)	(247,667)
Proceeds from sale of plant and equipment	26,345	46,592	81,881
Proceeds from sale of businesses	—	19,678	177,741
Purchase of marketable securities and other investments	(194,742)	(181,780)	(80,607)
Maturities and sales of marketable securities and other investments	275,483	74,908	83,905
Other	177,576	19,223	8,424
Net cash (used in) provided by investing activities	(5,023,993)	(218,510)	23,677
Cash Flows From Financing Activities			
Proceeds from exercise of stock options	2,623	2,475	3,682
Payments for common shares	(216,049)	(860,052)	(381,041)
Acquisition of noncontrolling interests	(1,200)	—	—
Proceeds from notes payable, net	136,744	48,828	4,115
Proceeds from long-term borrowings	1,721,211	2,336,749	1,189
Payments for long-term borrowings	(740,181)	(213,226)	(944,629)
Dividends paid	(453,838)	(412,468)	(365,288)
Net cash provided by (used in) financing activities	449,310	902,306	(1,681,972)
Effect of exchange rate changes on cash	(30,519)	(16,306)	(1,154)
Net (decrease) increase in cash and cash equivalents	(2,534,253)	2,397,630	(62,749)
Cash and cash equivalents at beginning of year	3,219,767	822,137	884,886
Cash and cash equivalents at end of year	\$ 685,514	\$ 3,219,767	\$ 822,137
Supplemental Data:			
Cash paid during the year for:			
Interest	\$ 308,199	\$ 169,378	\$ 200,860
Income taxes	307,959	454,699	408,765

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF EQUITY

(Dollars in thousands)	Common Stock	Additional Capital	Retained Earnings	Accumulated Other Comprehensive (Loss)	Treasury Shares	Noncontrolling Interests	Total
Balance June 30, 2017	\$ 90,523	\$ 543,879	\$ 10,930,348	\$ (1,924,204)	\$ (4,378,897)	\$ 5,697	\$ 5,267,346
Net income			1,060,801			514	1,061,315
Other comprehensive income (loss)				161,118		(440)	160,678
Dividends paid (\$2.74 per share)			(365,174)			(114)	(365,288)
Stock incentive plan activity		(47,287)			88,759		41,472
Acquisition activity						(30)	(30)
Shares purchased at cost					(300,000)		(300,000)
Balance June 30, 2018	\$ 90,523	\$ 496,592	\$ 11,625,975	\$ (1,763,086)	\$ (4,590,138)	\$ 5,627	\$ 5,865,493
Impact of adoption of accounting standards			51,603	(1,734)			49,869
Net income			1,512,364			567	1,512,931
Other comprehensive (loss) income				(294,228)		53	(294,175)
Dividends paid (\$3.16 per share)			(412,404)			(64)	(412,468)
Stock incentive plan activity		(34,506)			81,007		46,501
Shares purchased at cost					(799,999)		(799,999)
Balance June 30, 2019	\$ 90,523	\$ 462,086	\$ 12,777,538	\$ (2,059,048)	\$ (5,309,130)	\$ 6,183	\$ 5,968,152
Net income			1,206,341			362	1,206,703
Other comprehensive (loss)				(499,827)		(676)	(500,503)
Dividends paid (\$3.52 per share)			(453,213)			(625)	(453,838)
Stock incentive plan activity		(46,265)			90,981		44,716
Acquisition activity		764				9,302	10,066
Shares purchased at cost					(146,767)		(146,767)
Balance June 30, 2020	\$ 90,523	\$ 416,585	\$ 13,530,666	\$ (2,558,875)	\$ (5,364,916)	\$ 14,546	\$ 6,128,529

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Dollars in thousands, except per share amounts or as otherwise noted)

The term "year" and references to specific years refer to the applicable fiscal years.

1. Significant Accounting Policies

The significant accounting policies followed in the preparation of the accompanying consolidated financial statements are summarized below.

Nature of Operations - The Company is a leading worldwide diversified manufacturer of motion and control technologies and systems, providing precision engineered solutions for a wide variety of mobile, industrial and aerospace markets. We evaluate performance based on segment operating income before corporate administrative expenses, interest expense and income taxes.

The Diversified Industrial Segment is an aggregation of several business units, which manufacture motion-control and fluid power system components for builders and users of various types of manufacturing, packaging, processing, transportation, agricultural, construction, and military vehicles and equipment. Diversified Industrial Segment products are marketed primarily through field sales employees and independent distributors. The Diversified Industrial North American operations have manufacturing plants and distribution networks throughout the United States, Canada and Mexico and primarily service North America. The Diversified Industrial International operations provide Parker products and services to 46 countries throughout Europe, Asia Pacific, Latin America, the Middle East and Africa.

The Aerospace Systems Segment produces hydraulic, fuel, pneumatic and electro-mechanical systems and components, which are utilized on virtually every domestic commercial, military and general aviation aircraft and also performs a vital role in naval vessels and land-based weapons systems. This segment serves original equipment and maintenance, repair and overhaul customers worldwide. Aerospace Systems Segment products are marketed by field sales employees and are sold directly to manufacturers and end users.

There are no individual customers to whom sales are more than three percent of the Company's consolidated sales. Due to our diverse group of customers throughout the world, we do not consider ourselves exposed to any concentration of credit risks.

The Company manufactures and markets its products throughout the world. Although certain risks and uncertainties exist, the diversity and breadth of our products and geographic operations mitigate the risk that adverse changes with respect to any particular product and geographic operation would materially affect our operating results.

Use of Estimates - The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Basis of Consolidation - The consolidated financial statements include the accounts of all majority-owned domestic and foreign subsidiaries. All intercompany transactions and profits have been eliminated in the consolidated financial statements. The Company does not have off-balance sheet arrangements. Within the Business Segment Information, intersegment and interarea sales have been eliminated.

Revenue Recognition - Revenues are recognized when control of performance obligations, which are distinct goods or services within the contract, is transferred to the customer. Control is transferred when the customer has the ability to direct the use of and obtain the benefits from the goods or services. When revenue is recognized at a point in time, control generally transfers at time of shipment. Revenues are recognized over time if the customer simultaneously receives control as the Company performs work under a contract, if the customer controls the asset as it is being produced, or if the product produced for the customer has no alternative use and the Company has a contractual right to payment.

For contracts where revenue is recognized over time, we use the cost-to-cost, efforts expended or units of delivery method depending on the nature of the contract, including length of production time. The estimation of these costs and efforts expended requires judgment on the part of management due to the duration of the contractual agreements as well as the technical nature of the products involved. We make adjustments to these estimates on a consistent basis and establish a contract reserve when the estimated costs to complete a contract exceed the expected contract revenues.

A contract's transaction price is allocated to each distinct performance obligation. When there are multiple performance obligations within a contract, the transaction price is allocated to each performance obligation based on its standalone selling price. The primary method used to estimate a standalone selling price is the price observed in standalone sales to customers of the same product or service. Revenue is recognized when control of the individual performance obligations is transferred to the customer.

We consider the contractual consideration payable by the customer and assesses variable consideration that may affect the total transaction price. Variable consideration primarily includes prompt pay discounts, rebates and volume discounts and is included in the estimated transaction price when there is a basis to reasonably estimate the amount, including whether the estimate should be constrained in order to avoid a significant reversal of revenue in a future period. These estimates are based on historical experience, anticipated performance under the terms of the contract and our best judgment at the time.

Payment terms vary by customer and the geographic location of the customer. The time between when revenue is recognized and payment is due is not significant. Our contracts with customers generally do not include significant financing components or noncash consideration.

Taxes collected from customers and remitted to governmental authorities are excluded from revenue. Shipping and handling costs are treated as fulfillment costs and are included in cost of sales. The costs to obtain a contract where the amortization period for the related asset is one year or less are expensed as incurred.

There is generally no unilateral right to return products. The Company primarily offers an assurance-type standard warranty that the product will conform to certain specifications for a defined period of time or usage after delivery. This type of warranty does not represent a separate performance obligation.

Cash - Cash equivalents consist of short-term, highly liquid investments with a maturity of three months or less. These investments are carried at cost plus accrued interest and are readily convertible into cash.

Marketable Securities and Other Investments - Consist of short-term, highly liquid investments with stated maturities of greater than three months from the date of purchase, which are carried at cost plus accrued interest. Marketable securities and other investments also include investments in equity securities which are carried at fair value. Changes in fair value related to equity securities are recorded in net income. We have the ability to liquidate these investments after giving appropriate notice to the issuer.

Trade Accounts Receivable, Net - Trade accounts receivable are initially recorded at their net collectible amount and are generally recorded at the time the revenue from the sales transaction is recorded. Receivables are written off to bad debt primarily when, in the judgment of the Company, the receivable is deemed to be uncollectible due to the insolvency of the debtor. Allowance for doubtful accounts was \$11,644 and \$8,874 at June 30, 2020 and 2019, respectively.

Non-Trade and Notes Receivable - The non-trade and notes receivable caption in the Consolidated Balance Sheet is comprised of the following components:

June 30,	2020	2019
Notes receivable	\$ 97,370	\$ 147,719
Accounts receivable, other	147,500	162,989
Total	\$ 244,870	\$ 310,708

Plant, Equipment and Depreciation - Plant and equipment are recorded at cost and are depreciated principally using the straight-line method for financial reporting purposes. Depreciation rates are based on estimated useful lives of the assets, generally 40 years for buildings, 15 years for land improvements and building equipment, seven to 10 years for machinery and equipment, and three to eight years for vehicles and office equipment. Improvements, which extend the useful life of property, are capitalized, and maintenance and repairs are expensed. We review plant and equipment for impairment whenever events or changes in circumstances indicate that their carrying value may not be recoverable. When plant and equipment are retired or otherwise disposed of, the cost and accumulated depreciation are removed from the appropriate accounts and any gain or loss is included in current income.

The plant and equipment caption in the Consolidated Balance Sheet is comprised of the following components:

June 30,	2020	2019
Land and land improvements	\$ 345,746	\$ 281,040
Buildings and building equipment	1,773,041	1,567,130
Machinery and equipment	3,515,842	3,223,585
Construction in progress	176,052	114,975
Total	\$ 5,810,681	\$ 5,186,730

Investments and Other Assets - Investments in joint-venture companies in which ownership is 50 percent or less and in which the Company does not have operating control are stated at cost plus the Company's equity in undistributed earnings and amounted to \$317,975 and \$316,728 at June 30, 2020 and 2019, respectively. A significant portion of the underlying net assets of the joint ventures are related to goodwill. The Company's share of earnings from investments in joint-venture companies were \$74,517, \$93,239 and \$50,473 in 2020, 2019 and 2018, respectively.

Intangible Assets - Intangible assets primarily include patents and technology, trademarks and customer lists and contracts and are recorded at cost and amortized on a straight-line method. Patents and technology are amortized over the shorter of their remaining useful or legal life. Trademarks and customer contracts are amortized over the estimated time period over which an economic benefit is expected to be received. Customer lists are amortized over a period based on anticipated customer attrition rates. The Company reviews intangible assets for impairment whenever events or changes in circumstances indicate that their carrying value may not be recoverable.

Goodwill - The Company conducts a formal impairment test of goodwill on an annual basis and between annual tests if an event occurs or circumstances change that would, more likely than not, reduce the fair value of a reporting unit below its carrying value.

Income Taxes - Income taxes are provided based upon income for financial reporting purposes. Tax credits and similar tax incentives are applied to reduce the provision for income taxes in the year in which the credits arise. We recognize accrued interest related to unrecognized tax benefits in income tax expense. Penalties, if incurred, are recognized in income tax expense. Deferred income taxes arise from temporary differences in the recognition of income and expense for tax purposes. Income tax effects resulting from adjusting temporary differences recorded in accumulated other comprehensive (loss) are released when the circumstances on which they are based cease to exist.

Foreign Currency Translation - Assets and liabilities of foreign subsidiaries are translated at current exchange rates, and income and expenses are translated using weighted-average exchange rates. The effects of these translation adjustments, as well as gains and losses from certain intercompany transactions, are reported in accumulated other comprehensive (loss). Such adjustments will affect net income only upon sale or liquidation of the underlying foreign investments. Exchange (gains) losses from transactions in a currency other than the local currency of the entity involved are included within the cost of sales caption in the Consolidated Statement of Income and were \$(10,018), \$5,888 and \$7,284, in 2020, 2019 and 2018, respectively.

Subsequent Events - We evaluated subsequent events that have occurred through the date of filing of this Annual Report on Form 10-K for the year ended June 30, 2020. No subsequent events occurred that required adjustment to or disclosure in these financial statements.

Recent Accounting Pronouncements - In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-13, "Measurement of Credit Losses on Financial Instruments." ASU 2016-13 requires a financial asset (or a group of financial assets) measured at amortized cost to be presented at the net amount expected to be collected. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial asset(s) to present the net carrying value at the amount expected to be collected on the financial asset. Credit losses relating to available-for-sale debt securities should be recorded through an allowance for credit losses. ASU 2016-13 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2019. We adopted ASU 2016-13 on July 1, 2020. The adoption of this ASU will not materially impact the Company's financial statements or related disclosures.

In February 2016, the FASB issued ASU 2016-02, "Leases." ASU 2016-02 requires lessees to put most leases with terms greater than 12 months on their balance sheet by recognizing a liability to make lease payments and an asset representing their right to use the asset during the lease term. We adopted ASU 2016-02 on July 1, 2019 using the optional transition method and have not restated prior periods. We elected to use the package of practical expedients permitted under the transition guidance, which allows the carry forward of historical lease classification of existing leases. Upon adoption, we recorded a right-of-use asset and lease liability of approximately \$126 million. The adoption of the ASU did not have a material impact on the Consolidated Statement of Income or Cash Flows.

2. Revenue recognition

Revenue is derived primarily from the sale of products in a variety of mobile, industrial and aerospace markets. A majority of the Company's revenues are recognized at a point in time. However, a portion of the Company's revenues are recognized over time.

Disaggregation of revenue

Revenue from contracts with customers is disaggregated by technology platforms for the Diversified Industrial Segment, by product platforms for the Aerospace Systems Segment and by geographic location for the total Company.

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The Diversified Industrial Segment is an aggregation of several business units, which manufacture motion-control and fluid power system components for builders and users of various types of manufacturing, packaging, processing, transportation, agricultural, construction, and military vehicles and equipment. Contracts consist of individual purchase orders for standard product, blanket purchase orders and production contracts. Blanket purchase orders are often associated with individual purchase orders and have terms and conditions which are subject to a master supply or distributor agreement. Individual production contracts, some of which may include multiple performance obligations, are typically for products manufactured to the customer's specifications. Revenue in the Diversified Industrial Segment is typically recognized at the time of product shipment, but a portion of revenue may be recognized over time for installation services or in situations where the product has no alternative use and we have an enforceable right to payment.

Diversified Industrial Segment revenues by technology platform:

	2020	2019
Motion Systems	\$ 2,996,645	\$ 3,485,068
Flow and Process Control	3,795,952	4,293,393
Filtration and Engineered Materials	4,168,288	4,031,086
Total	<u>\$ 10,960,885</u>	<u>\$ 11,809,547</u>

The Aerospace Systems Segment produces hydraulic, fuel, pneumatic and electro-mechanical systems and components, which are utilized on virtually every domestic commercial, military and general aviation aircraft. Aerospace Systems Segment products also perform a vital role in naval vessels and land-based weapon systems. Contracts generally consist of blanket purchase orders and individual long-term production contracts. Blanket purchase orders, which have terms and conditions subject to long-term supply agreements, are typically associated with individual purchase orders. Revenue in the Aerospace Systems Segment is typically recognized at the time of product shipment, but a portion of revenue may be recognized over time in situations where the customer controls the asset as it is produced or the product has no alternative use and we have an enforceable right to payment.

Aerospace Systems Segment revenues by product platform:

	2020	2019
Flight Control Actuation	\$ 711,017	\$ 750,311
Fuel and Inerting	592,543	634,658
Hydraulics	411,823	461,554
Engines	616,747	285,292
Fluid Conveyance	304,769	299,035
Other	97,736	79,927
Total	<u>\$ 2,734,635</u>	<u>\$ 2,510,777</u>

Total revenues by geographic region based on the Company's selling operation's location:

	2020	2019
North America	\$ 9,166,773	\$ 9,318,195
Europe	2,596,125	2,968,971
Asia Pacific	1,790,032	1,855,831
Latin America	142,590	177,327
Total	<u>\$ 13,695,520</u>	<u>\$ 14,320,324</u>

The majority of revenues from the Aerospace Systems Segment is generated from sales to customers within North America.

[Contract balances](#)

Contract assets and contract liabilities are reported on a contract-by-contract basis. Contract assets reflect revenue recognized and performance obligations satisfied in advance of customer billing. Contract liabilities relate to payments received in advance of the satisfaction of performance under the contract. Payments from customers are received based on the terms established in the contract with the customer.

Total contract assets and contract liabilities are as follows:

	2020	2019
Contract assets, current (included within Prepaid expenses and other)	\$ 30,827	\$ 22,726
Contract assets, noncurrent (included within Investments and other assets)	1,497	1,301
Total contract assets	32,324	24,027
Contract liabilities, current (included within Other accrued liabilities)	(51,278)	(64,668)
Contract liabilities, noncurrent (included within Other liabilities)	(3,232)	(421)
Total contract liabilities	(54,510)	(65,089)
Net contract liabilities	\$ (22,186)	\$ (41,062)

At June 30, 2020, the change in net contract liabilities was primarily due to timing differences between when revenue was recognized and the receipt of advance payments. During 2020, approximately \$33 million of revenue was recognized that was included in the contract liabilities at June 30, 2019.

Remaining performance obligations

Our backlog represents written firm orders from a customer to deliver products and, in the case of blanket purchase orders, only includes the portion of the order for which a schedule or release has been agreed to with the customer. We believe our backlog represents our unsatisfied or partially unsatisfied performance obligations. Backlog at June 30, 2020 was \$5,138 million, of which approximately 85 percent is expected to be recognized as revenue within the next 12 months and the balance thereafter.

3. Acquisitions and Divestitures

Acquisitions - On October 29, 2019, we completed the acquisition of a 100 percent equity interest in LORD Corporation ("Lord") for approximately \$3,455 million in cash, including the assumption of debt. On September 16, 2019, we completed the acquisition of a 100 percent equity interest in EMFCO Holdings Incorporated, parent company of Exotic Metals Forming Company LLC ("Exotic") for approximately \$1,706 million in cash.

Lord is a diversified technology and manufacturing company developing highly reliable adhesives and coatings, as well as vibration and motion control technologies, that significantly reduce risk and improve product performance. Lord's products are used in mission-critical applications in the aerospace, automotive and industrial markets. Lord had annual sales of approximately \$1,025 million for its fiscal 2018. For segment reporting purposes, approximately 95 percent of Lord's sales are included in the Diversified Industrial Segment, while the remaining five percent are included in the Aerospace Systems Segment. Lord's unique and proprietary products, solutions and technologies for mission-critical applications are expected to increase the Company's overall engineered materials product and solutions offerings to enable a stronger value proposition for customers.

Exotic designs and manufactures innovative and technically demanding, high temperature, high pressure air and exhaust management solutions for aircraft and engines. Exotic had annual sales of approximately \$409 million for its fiscal 2019.

For segment reporting purposes, Exotic is included in the Aerospace Systems Segment. We believe Exotic's products and proprietary manufacturing capabilities are complementary to our portfolio of flight control, fuel and inerting, hydraulics, fluid conveyance and engine components.

Assets acquired and liabilities assumed are recognized at their respective fair values as of the acquisition date. The process of estimating the fair values of certain tangible assets, identifiable intangible assets and assumed liabilities requires the use of judgment in determining the appropriate assumptions and estimates. The following presents the preliminary estimated fair values of Lord's and Exotic's assets acquired and liabilities assumed on the respective acquisition dates. These preliminary estimates are based on available information and will be revised during the measurement period, not to exceed 12 months from the acquisition date, as third-party valuations are finalized, additional information becomes available and as additional analysis is performed. Such revisions may have a material impact on our results of operations and financial position within the measurement period. During 2020, these revisions, which primarily impacted intangible assets, goodwill, deferred income taxes, other liabilities, and plant and equipment, did not have a material impact on our financial statements.

The purchase price allocation for acquisitions in 2020 is as follows:

	Lord	Exotic
	October 29, 2019	September 16, 2019
Assets:		
Cash and cash equivalents	\$ 74,013	\$ 8,179
Accounts receivable	153,765	81,336
Inventories	248,600	114,661
Prepaid expenses	24,131	1,343
Plant and equipment	409,163	178,393
Deferred income taxes	—	2,057
Other assets	42,220	1,226
Intangible assets	1,446,660	874,470
Goodwill	1,966,865	503,725
Total assets acquired	4,365,417	1,765,390
Liabilities:		
Notes payable and long-term debt payable within one year	404	—
Accounts payable, trade	56,186	23,176
Accrued payrolls and other compensation	57,571	8,863
Accrued domestic and foreign taxes	2,898	2,123
Other accrued liabilities	87,810	25,662
Long-term debt	221,161	—
Pensions and other postretirement benefits	115,265	—
Deferred income taxes	303,958	—
Other liabilities	53,455	—
Noncontrolling interests	11,266	—
Total liabilities and noncontrolling interests assumed	909,974	59,824
Net assets acquired	\$ 3,455,443	\$ 1,705,566

Goodwill is calculated as the excess of the purchase price over the net assets acquired. With respect to the Lord and Exotic acquisitions, goodwill represents cost synergies and enhancements to our existing technologies. For tax purposes, Lord's goodwill is not deductible, and Exotic's goodwill is deductible. Based upon a preliminary acquisition valuation, intangibles acquired as part of the Exotic acquisition include \$502,470 of customer-related intangible assets, \$281,400 of patents and technology and \$90,600 of trademarks, with weighted average estimated useful lives of 18, 20 and 20 years, respectively. Similarly, the Lord acquisition includes \$869,190 of customer-related intangible assets, \$458,030 of patents and technology and \$119,440 of trademarks, with weighted average estimated useful lives of 13, 21 and 20 years, respectively. These intangible assets were valued using the income approach, which includes significant assumptions around future revenue growth and discount rates. Such assumptions are classified as level 3 inputs within the fair value hierarchy.

Our consolidated financial statements include the results of operations of Lord and Exotic from their respective acquisition dates through June 30, 2020. Net sales attributable to these acquisitions during this period and included in our consolidated financial statements totaled \$949,066. Segment operating income attributable to these acquisitions during this period and included in our consolidated financial statements totaled \$22,330.

Acquisition-related transaction and integration costs totaled \$119,214 in 2020. These costs are included in selling, general, and administrative expenses in the Consolidated Statement of Income.

Divestitures - During 2018, the Company divested its global Facet filtration business, which was part of the Diversified Industrial Segment. The operating results and net assets of the global Facet filtration business were immaterial to the Company's consolidated results of operations and financial position. The Company recorded a pre-tax loss in 2018 of approximately \$20 million and tax expense of approximately \$29 million resulting from a tax gain related to the divestiture. The pre-tax loss is reflected in the (gain) loss on disposal of assets caption in the Consolidated Statement of Income and the other expense caption in the Business Segment Information.

4. Charges Related to Business Realignment and Acquisition Integration

The Company incurred business realignment and acquisition integration charges in 2020, 2019 and 2018. The business realignment charges primarily consist of severance costs related to actions taken under the Company's simplification initiative aimed at reducing organizational and process complexity as well as plant closures. During 2020, business realignment charges also include actions taken to address the impact of COVID-19 on our business, especially within the Aerospace Systems Segment. The 2019 and 2018 acquisition integration charges relate to the 2017 acquisition of CLARCOR, Inc. ("Clarcor") and primarily consist of severance costs and expenses related to plant closures and relocations. A majority of the business realignment charges were incurred in North America and Europe. We believe the realignment actions will positively impact future results of operations but will not have a material effect on liquidity and sources and uses of capital.

Business realignment and Clarcor acquisition integration charges presented in the Business Segment Information are as follows:

	2020	2019	2018
Diversified Industrial	\$ 52,288	\$ 27,830	\$ 78,558
Aerospace Systems	22,101	—	3,428
Corporate administration	1,175	—	—
Other expense	50	305	1,009

Workforce reductions in connection with such business realignment and Clarcor acquisition integration charges in the Business Segment Information are as follows:

	2020	2019	2018
Diversified Industrial	2,394	598	1,757
Aerospace Systems	1,254	—	265
Corporate administration	31	—	—

The business realignment and Clarcor acquisition integration charges are presented in the Consolidated Statement of Income as follows:

	2020	2019	2018
Cost of sales	\$ 58,791	\$ 14,650	\$ 44,949
Selling, general and administrative expenses	16,773	13,180	36,813
(Gain) loss on disposal of assets	50	305	1,233

As of June 30, 2020, approximately \$63 million in severance payments were made relating to business realignment and Clarcor acquisition integration charges. Remaining payments related to current-year and prior-year business realignment and Clarcor acquisition integration actions of \$23 million, a majority of which are expected to be paid by June 30, 2021, are primarily reflected within the other accrued liabilities caption in the Consolidated Balance Sheet. Additional charges may be recognized in future periods related to the business realignment and acquisition integration actions described above, the timing and amount of which are not known at this time.

We also incurred the following acquisition integration charges related to the Lord and Exotic acquisitions:

	2020
Diversified Industrial	\$ 20,669
Aerospace Systems	1,908

These charges are primarily included in selling, general and administrative expenses within the Consolidated Statement of Income.

5. Income Taxes

Income before income taxes was derived from the following sources:

	2020	2019	2018
United States	\$ 833,933	\$ 1,124,933	\$ 963,843
Foreign	678,694	808,492	738,434
	<u>\$ 1,512,627</u>	<u>\$ 1,933,425</u>	<u>\$ 1,702,277</u>

Income taxes include the following:

	2020	2019	2018
Federal			
Current	\$ 105,796	\$ 160,858	\$ 453,821
Deferred	26,067	14,903	(23,876)
Foreign			
Current	167,680	206,167	210,385
Deferred	(14,247)	3,202	(17,454)
State and local			
Current	18,756	20,932	18,168
Deferred	1,872	14,432	(82)
	<u>\$ 305,924</u>	<u>\$ 420,494</u>	<u>\$ 640,962</u>

A reconciliation of the effective income tax rate to the statutory federal rate follows:

	2020	2019	2018
Statutory federal income tax rate	21.0 %	21.0 %	28.1 %
State and local income taxes	1.4	1.7	1.2
Tax related to international activities	1.8	2.9	(1.0)
Transition tax related to the TCJ Act	(0.7)	0.8	17.5
Remeasurement of deferred tax assets and liabilities related to the TCJ Act	—	(0.9)	(4.8)
Cash surrender value of life insurance	(0.3)	(0.1)	(0.4)
Federal manufacturing deduction	—	0.1	(1.0)
Foreign derived intangible income deduction	(1.5)	(1.0)	—
Research tax credit	(0.6)	(0.5)	(0.7)
Share-based compensation	(1.5)	(1.7)	(2.2)
Other	0.6	(0.6)	1.0
Effective income tax rate	<u>20.2 %</u>	<u>21.7 %</u>	<u>37.7 %</u>

We made the accounting policy election to treat taxes related to Global Intangible Low-Taxed Income ("GILTI") as a current period expense when incurred. The tax rate impact of GILTI is included with tax related to international activities in the table above.

On March 27, 2020, the President of the United States signed into law the Coronavirus Aid, Relief, and Economic Security ("CARES") Act, a significant tax-and-spending package intended to provide economic stimulus to address the impact of the COVID-19 pandemic. We continue to monitor the impact from the CARES Act; however, no income tax effects have been recorded in the current year, and we do not expect it to materially impact the Company.

Deferred income taxes are provided for the temporary differences between the financial reporting basis and the tax basis of assets and liabilities. The differences comprising the net deferred taxes shown on the Consolidated Balance Sheet at June 30 were as follows:

	2020	2019
Retirement benefits	\$ 504,747	\$ 368,269
Other liabilities and reserves	139,872	90,936
Long-term contracts	7,392	22,241
Stock-based compensation	35,483	38,730
Loss carryforwards	754,655	792,914
Unrealized currency exchange gains and losses	39,256	27,034
Inventory	5,242	5,540
Tax credit carryforwards	33,176	15,640
Undistributed foreign earnings	(15,196)	(16,762)
Depreciation and amortization	(988,886)	(589,454)
Valuation allowance	(771,430)	(797,692)
Net deferred tax (liability)	<u>\$ (255,689)</u>	<u>\$ (42,604)</u>
Change in net deferred tax (liability):		
Provision for deferred tax	\$ (13,692)	\$ (32,537)
Items of other comprehensive income	102,297	72,530
Acquisitions and other	(301,690)	94,638
Total change in net deferred tax	<u>\$ (213,085)</u>	<u>\$ 134,631</u>

As of June 30, 2020, we recorded deferred tax assets of \$754,655 resulting from \$3,048,453 in loss carryforwards. A valuation allowance of \$741,171 related to the loss carryforwards has been established due to the uncertainty of their realization. Of this valuation allowance, \$710,439 relates to non-operating entities whose loss carryforward utilization is considered to be remote. Some of the loss carryforwards can be carried forward indefinitely; others can be carried forward from three to 20 years. In addition, a valuation allowance of \$30,259 related to future deductible items has been established due to the uncertainty of their realization. These future deductible items are recorded in the other liabilities and reserves and tax credit carryforward lines in the table above.

Although future distributions of foreign earnings to the U.S. should not be subject to U.S. federal income taxes, other U.S. or foreign taxes may be imposed on such earnings. We have analyzed existing factors and determined we will no longer permanently reinvest certain foreign earnings. On these undistributed foreign earnings of approximately \$717 million that are no longer permanently reinvested outside of the U.S., we have recorded a deferred tax liability of \$10 million. The remaining undistributed foreign earnings of approximately \$2,122 million remain permanently reinvested outside the U.S. at June 30, 2020. Of these undistributed earnings, we have recorded a deferred tax liability of \$5 million where certain foreign holding companies are not permanently reinvested in their subsidiaries. It is not practicable to estimate the additional taxes, including applicable foreign withholding taxes, that might be payable on the potential distribution of such permanently reinvested foreign earnings.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	2020	2019	2018
Balance July 1	\$ 140,662	\$ 153,091	\$ 147,506
Additions for tax positions related to current year	4,955	2,272	4,195
Additions for tax positions of prior years	798	45	8,333
Additions for acquisitions	43,532	—	—
Reductions for tax positions of prior years	(41,726)	(927)	(3,790)
Reductions for settlements	(53,520)	(832)	(315)
Reductions for expiration of statute of limitations	(3,820)	(9,388)	(4,480)
Effect of foreign currency translation	(4,604)	(3,599)	1,642
Balance June 30	\$ 86,277	\$ 140,662	\$ 153,091

The total amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate was \$86,277, \$140,662 and \$153,091 as of June 30, 2020, 2019 and 2018, respectively. The accrued interest related to the gross unrecognized tax benefits, excluded from the amounts above, was \$14,247, \$25,214 and \$21,737 as of June 30, 2020, 2019 and 2018, respectively. In the current year, we recorded the resolution of an examination with a foreign jurisdiction that resulted in a significant decrease to the unrecognized tax benefit recorded on our balance sheet. This is included in reductions for tax positions of prior years and reductions for settlements in the table above.

It is reasonably possible that, within the next 12 months, the amount of gross unrecognized tax benefits could be reduced by up to approximately \$40,000 as a result of the revaluation of existing uncertain tax positions arising from developments in the examination process or the closure of tax statutes. Any increase in the amount of unrecognized tax benefits within the next 12 months is expected to be insignificant.

We file income tax returns in the United States and in various foreign jurisdictions. In the normal course of business, we are subject to examination by taxing authorities throughout the world. We are open to assessment of our U.S. federal income tax returns by the Internal Revenue Service for years after 2013, and our state and local income tax returns for years after 2013. We are open to assessment for significant foreign jurisdictions for years after 2008.

6. Earnings Per Share

Basic earnings per share are computed using the weighted-average number of common shares outstanding during the year. Diluted earnings per share are computed using the weighted-average number of common shares and common share equivalents outstanding during the year. Common share equivalents represent the dilutive effect of outstanding equity-based awards. The reconciliation of the numerator and denominator of basic and diluted earnings per share was as follows:

	2020	2019	2018
Numerator:			
Net income attributable to common shareholders	\$ 1,206,341	\$ 1,512,364	\$ 1,060,801
Denominator:			
Basic - weighted-average common shares	128,418,495	129,997,640	133,004,613
Increase in weighted-average common shares from dilutive effect of equity-based awards	1,386,539	1,783,977	2,422,221
Diluted - weighted-average common shares, assuming exercise of equity-based awards	129,805,034	131,781,617	135,426,834
Basic earnings per share	\$ 9.39	\$ 11.63	\$ 7.98
Diluted earnings per share	\$ 9.29	\$ 11.48	\$ 7.83

For 2020, 2019 and 2018, 0.6 million, 0.9 million and 0.5 million common shares, respectively, subject to equity-based awards were excluded from the computation of diluted earnings per share because the effect of their exercise would be anti-dilutive.

7. Inventories

The majority of domestic inventories are valued by the last-in, first-out ("LIFO") cost method and the balance of the Company's inventories are valued by the first-in, first-out ("FIFO") cost method. Inventories valued by the FIFO cost method are stated at the lower of cost or net realizable value. Inventories valued by the LIFO cost method are stated at lower of cost or market.

Inventories valued on the LIFO cost method were approximately 33 percent of total inventories in 2020 and 41 percent in 2019. The current cost of these inventories exceeds their valuation determined on the LIFO basis by \$219,854 and \$222,715 in 2020 and 2019, respectively.

The inventories caption in the Consolidated Balance Sheet is comprised of the following components:

June 30,	2020		2019	
Finished products	\$	694,577	\$	663,068
Work in process		881,104		850,778
Raw materials		238,950		164,286
Total	\$	<u>1,814,631</u>	\$	<u>1,678,132</u>

8. Goodwill and Intangible Assets

The changes in the carrying amount of goodwill are as follows:

	Diversified Industrial Segment	Aerospace Systems Segment	Total
Balance June 30, 2018	\$ 5,405,771	\$ 98,649	\$ 5,504,420
Acquisitions	2,940	—	2,940
Foreign currency translation and other	(53,546)	(9)	(53,555)
Balance June 30, 2019	\$ 5,355,165	\$ 98,640	\$ 5,453,805
Acquisitions	1,966,865	503,725	2,470,590
Foreign currency translation and other	(54,457)	(3)	(54,460)
Balance June 30, 2020	\$ 7,267,573	\$ 602,362	\$ 7,869,935

Acquisitions represent the goodwill allocation during the measurement period subsequent to the applicable acquisition dates. Refer to Note 3 for further discussion.

We test goodwill for impairment at the reporting unit level on an annual basis and between annual tests whenever events or circumstances indicate that the carrying value of a reporting unit may exceed its fair value. Our annual impairment tests performed in 2020, 2019 and 2018 resulted in no impairment loss being recognized. We did not identify any events or circumstances during 2020 that required performance of an interim impairment test. However, the effects of COVID-19 on the global economy, including further market disruption, lack of economic recovery or lower than anticipated customer demand, may require the performance of additional impairment tests in future periods.

Intangible assets are amortized on a straight-line method over their legal or estimated useful lives. The gross carrying value and accumulated amortization for each major category of intangible asset at June 30 are as follows:

	2020		2019	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Patents and technology	\$ 991,596	\$ 162,528	\$ 265,644	\$ 130,233
Trademarks	748,326	285,197	542,573	252,388
Customer lists and other	3,791,505	1,284,789	2,435,461	1,077,780
Total	<u>\$ 5,531,427</u>	<u>\$ 1,732,514</u>	<u>\$ 3,243,678</u>	<u>\$ 1,460,401</u>

Total intangible asset amortization expense in 2020, 2019 and 2018 was \$284,632, \$205,164 and \$221,494, respectively. Estimated intangible asset amortization expense for the five years ending June 30, 2021 through 2025 is \$321,200, \$303,504, \$293,603, \$284,418 and \$270,409, respectively.

Intangible assets are evaluated for impairment whenever events or circumstances indicate that the undiscounted net cash flows to be generated by their use over their expected useful lives and eventual disposition may be less than their net carrying value. No material intangible asset impairments occurred in 2020, 2019 or 2018.

9. Financing Arrangements

During 2020, the Company amended and extended its existing multi-currency credit agreement, increasing its capacity to \$2,500,000. As of June 30, 2020, \$1,776,500 was available for borrowing under the credit agreement. The credit agreement expires in September 2024; however, the Company has the right to request a one-year extension of the expiration date on an annual basis, which request may result in changes to the current terms and conditions of the credit agreement. Advances from the credit agreement can be used for general corporate purposes, including acquisitions, and for the refinancing of existing indebtedness. The credit agreement requires the payment of an annual facility fee, the amount of which may increase in the event our credit ratings are lowered. Although a lowering of our credit ratings would likely increase the cost of future debt, it would not limit our ability to use the credit agreement nor would it accelerate the repayment of any outstanding borrowings.

The Company is currently authorized to sell up to \$2,500,000 of short-term commercial paper notes. Commercial paper notes outstanding at June 30, 2020 and 2019 were \$723,500 and \$586,000, respectively. The Company had no outstanding borrowings from foreign banks at June 30, 2020 and had borrowings of \$786 at June 30, 2019. The weighted-average interest rate on notes payable during 2020 and 2019 was 2.2 percent and 2.8 percent, respectively.

In the ordinary course of business, our foreign locations may enter into financial guarantees through financial institutions which enable customers to be reimbursed in the event of nonperformance by the Company.

The Company's credit agreements and indentures governing certain debt agreements contain various covenants, the violation of which would limit or preclude the use of the applicable agreements for future borrowings, or might accelerate the maturity of the related outstanding borrowings covered by the applicable agreements. Based on our rating level at June 30, 2020, the most restrictive financial covenant provides that the ratio of debt to debt-shareholders' equity cannot exceed 0.65 to 1.0. As of June 30, 2020, our debt to debt-shareholders' equity ratio was 0.58 to 1.0. We are in compliance with all covenants.

10. Debt

June 30,	2020	2019
Domestic:		
Fixed rate medium-term notes, 3.30% to 6.25%, due 2023 - 2045	\$ 2,125,000	\$ 2,125,000
Senior Notes, 2.70% to 4.10%, due 2024 - 2049	3,675,000	3,675,000
Term loans, Libor plus 112.5 bps, due 2023 - 2024	1,210,313	—
Foreign:		
Euro Senior Notes, 1.125%, due 2025	786,520	796,040
Other long-term debt	12,708	340
Deferred debt issuance costs	(71,256)	(75,321)
Total long-term debt	7,738,285	6,521,059
Less: Long-term debt payable within one year	86,029	228
Long-term debt, net	\$ 7,652,256	\$ 6,520,831

During 2020, the Company entered into and drew against a term loan with an aggregate principal amount of \$925,000, which will mature in its entirety in September 2023. We used the proceeds to finance a portion of the purchase of the Exotic acquisition. In addition, we drew against the \$800,000 term loan, which will mature in its entirety in October 2022. We used the proceeds to finance a portion of the purchase of the Lord acquisition. Interest payments were made quarterly in 2020. The agreements permit interest rate re-set periods ranging from one to six months at our election, and interest is due at the conclusion of the re-set period chosen.

Principal amounts of long-term debt payable in the five years ending June 30, 2021 through 2025 are \$87,218, \$87,998, \$587,458, \$1,327,376 and \$1,287,303, respectively. The principal amounts of long-term debt payable exclude the amortization of debt issuance costs.

11. Leases

We primarily enter into lease agreements for office space, distribution centers, certain manufacturing facilities and equipment. The majority of our leases are operating leases. Finance leases are immaterial to our financial statements. In addition, leases with an initial term of twelve months or less are not recorded on the Consolidated Balance Sheet. Certain leases contain options that provide us with the ability to extend the lease term. Such options are included in the lease term when it is reasonably certain that the option will be exercised. When accounting for leases, we combine payments for leased assets, related services and other components of a lease. Payments within certain lease agreements are adjusted periodically for changes in an index or rate.

The discount rate implicit within our leases is generally not determinable and therefore we determine the discount rate based on our incremental borrowing rate. The incremental borrowing rate for our leases is determined based on lease term and the currency in which lease payments are made.

The components of lease expense are as follows:

	2020
Operating lease expense	\$ 50,267
Short-term lease cost	8,566
Variable lease cost	5,108
Total lease cost	\$ 63,941

Supplemental cash flow information related to operating leases are as follows:

	2020
Cash paid for amounts included in the measurement of operating lease liabilities	\$ 48,562
Right-of-use assets obtained in exchange for operating lease obligations	41,069

Supplemental balance sheet information related to operating leases is as follows:

	2020
Operating lease right-of-use assets (included within Investments and other assets)	\$ 138,601
Current operating lease liabilities (included within Other accrued liabilities)	\$ 43,327
Long-term operating lease liabilities (included within Other liabilities)	96,446
Total operating lease liabilities	\$ 139,773

Weighted average remaining lease term	5.2 years
Weighted average discount rate	2.1%

Maturities of lease liabilities at June 30, 2020 are as follows:

	Operating Leases
2021	\$ 45,694
2022	33,212
2023	21,593
2024	13,749
2025	10,227
Thereafter	23,775
Total operating lease payments	\$ 148,250
Less imputed interest	8,477
Total operating lease liabilities	\$ 139,773

Future minimum rental commitments as of June 30, 2019, under non-cancelable operating leases, which expire at various dates, are as follows: 2020-\$45,920; 2021-\$31,115; 2022-\$21,625; 2023-\$13,228; 2024-\$7,591 and after 2024-\$22,723.

Rental expense in 2019 and 2018 was \$126,752 and \$126,940, respectively.

12. Retirement Benefits

Pensions - The Company has noncontributory defined benefit pension plans covering eligible employees, including certain employees in foreign countries. Plans for most salaried employees provide pay-related benefits based on years of service. Plans for hourly employees generally provide benefits based on flat-dollar amounts and years of service. We also have arrangements for certain key employees, which provide for supplemental retirement benefits. In general, the Company's policy is to fund these plans based on legal requirements, tax considerations, local practices and investment opportunities. We also sponsor defined contribution plans and participate in government-sponsored programs in certain foreign countries.

A summary of the Company's defined benefit pension plans follows:

	2020	2019	2018
Benefit cost			
Service cost	\$ 82,743	\$ 76,647	\$ 82,993
Interest cost	142,479	160,542	144,339
Expected return on plan assets	(266,674)	(251,072)	(258,490)
Amortization of prior service cost	5,633	6,655	6,570
Amortization of unrecognized actuarial loss	165,815	121,823	147,387
Amortization of transition obligation	18	18	18
Net periodic benefit cost	\$ 130,014	\$ 114,613	\$ 122,817

Components of net pension benefit cost, other than service cost, are included in other (income) expense, net in the Consolidated Statement of Income.

	2020	2019
Change in benefit obligation		
Benefit obligation at beginning of year	\$ 5,487,574	\$ 5,033,997
Service cost	82,743	76,647
Interest cost	142,479	160,542
Acquisition	380,237	—
Plan amendments	3,286	7,719
Actuarial loss	569,306	491,792
Benefits paid	(232,048)	(237,080)
Foreign currency translation and other	(27,954)	(46,043)
Benefit obligation at end of year	<u>\$ 6,405,623</u>	<u>\$ 5,487,574</u>
Change in plan assets		
Fair value of plan assets at beginning of year	\$ 4,244,969	\$ 3,915,889
Actual gain on plan assets	253,684	318,809
Acquisition	280,103	—
Employer contributions	72,753	284,965
Benefits paid	(232,048)	(237,080)
Foreign currency translation and other	(25,355)	(37,614)
Fair value of plan assets at end of year	<u>\$ 4,594,106</u>	<u>\$ 4,244,969</u>
Funded status	<u>\$ (1,811,517)</u>	<u>\$ (1,242,605)</u>
Amounts recognized on the Consolidated Balance Sheet		
Other accrued liabilities	\$ (1,423)	\$ (8,396)
Pensions and other postretirement benefits	(1,810,094)	(1,234,209)
Net amount recognized	<u>\$ (1,811,517)</u>	<u>\$ (1,242,605)</u>
Amounts recognized in Accumulated Other Comprehensive (Loss)		
Net actuarial loss	\$ 1,921,389	\$ 1,510,901
Prior service cost	17,184	19,602
Transition obligation	26	44
Net amount recognized	<u>\$ 1,938,599</u>	<u>\$ 1,530,547</u>

The presentation of the amounts recognized on the Consolidated Balance Sheet and in accumulated other comprehensive (loss) is on a debit (credit) basis and excludes the effect of income taxes.

The benefit obligation increased in 2020 upon acquisition of the Lord pension plans. Significant reductions in the discount rates also contributed to the increase in the benefit obligation, which was partially offset by a reduced salary scale and updated mortality assumptions for the domestic qualified defined benefit plan.

The increase in the benefit obligation in 2019, largely reflected in the net actuarial loss component, is primarily due to the decrease in the discount rate used to measure the obligation across all pension plans. Additionally, the benefit obligation increased slightly as a result of updated census data for the domestic qualified defined benefit plan due to delayed retirements and higher than anticipated compensation increases.

The increase in the plan assets' fair value in 2020 is attributable the acquisition of the Lord pension plans and investment gains. The increase in the plan assets' fair value in 2019 is attributable to a \$200 million discretionary contribution to the domestic qualified defined benefit plan and investment gains.

The accumulated benefit obligation for all defined benefit plans was \$6,102,038 and \$5,184,637 at June 30, 2020 and 2019, respectively.

Information for pension plans with accumulated benefit obligations in excess of plan assets:

	2020	2019
Accumulated benefit obligation	\$ 6,028,952	\$ 5,094,129
Fair value of plan assets	4,503,316	4,140,395

Information for pension plans with projected benefit obligations in excess of plan assets:

	2020	2019
Projected benefit obligation	\$ 6,348,500	\$ 5,427,084
Fair value of plan assets	4,523,545	4,175,871

We expect to make cash contributions of approximately \$71 million to our defined benefit pension plans in 2021, the majority of which relates to our unfunded non-U.S. plans. Estimated future benefit payments in the five years ending June 30, 2021 through 2025 are \$266,011, \$326,214, \$284,379, \$290,707 and \$302,169, respectively, and \$1,606,648 in the aggregate for the five years ending June 30, 2026 through June 30, 2030.

The assumptions used to measure net periodic benefit cost for the Company's significant defined benefit plans are:

	2020	2019	2018
U.S. defined benefit plan			
Discount rate	3.28%	4.01%	3.64%
Average increase in compensation	3.60%	3.65%	3.89%
Expected return on plan assets	7.00%	7.00%	7.50%
Non-U.S. defined benefit plans			
Discount rate	0.2 to 2.96%	0.3 to 3.37%	0.3 to 7.57%
Average increase in compensation	1.75 to 3.90%	1.75 to 5.50%	2.0 to 5.50%
Expected return on plan assets	1.0 to 5.75%	1.0 to 5.75%	1.0 to 5.75%

The assumptions used to measure the benefit obligation for the Company's significant defined benefit plans are:

	2020	2019
U.S. defined benefit plan		
Discount rate	2.36%	3.28%
Average increase in compensation	2.98%	3.60%
Non-U.S. defined benefit plans		
Discount rate	0.2 to 3.03%	0.2 to 2.96%
Average increase in compensation	1.75 to 4.50%	1.75 to 3.90%

The discount rate assumption is based on current rates of high-quality, long-term corporate bonds over the same estimated time period that benefit payments will be required to be made. The expected return on plan assets assumption is based on the weighted-average expected return of the various asset classes in the plans' portfolio. The asset class return is developed using historical asset return performance as well as current market conditions such as inflation, interest rates and equity market performance.

The weighted-average allocation of the majority of the assets related to defined benefit plans is as follows:

	2020	2019
Equity securities	41%	43%
Debt securities	49%	54%
Other investments	10%	3%
	100%	100%

The weighted-average target asset allocation as of June 30, 2020 is 39 percent equity securities, 43 percent debt securities and 18 percent other investments. The investment strategy for the Company's worldwide defined benefit pension plan assets focuses on achieving prudent actuarial funding ratios while maintaining acceptable levels of risk in order to provide adequate liquidity to meet immediate and future benefit requirements. This strategy requires investment portfolios that are broadly diversified across various asset classes and external investment managers. Assets held in the U.S. defined benefit plan account for approximately 75 percent of our total defined benefit plan assets. The overall investment strategy with respect to our U.S. defined benefit plan is to use a funding strategy more heavily weighted toward liability-hedging assets as the funded status improves. Over time, we will continue to add long duration fixed income investments to the portfolio. These securities are highly correlated with our pension liabilities and will be managed in a liability framework.

The fair values of pension plan assets at June 30, 2020 and at June 30, 2019, by asset class, are as follows:

	June 30, 2020	Quoted Prices In Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and cash equivalents	\$ 97,112	\$ 96,004	\$ 1,108	\$ —
Equity securities				
U.S. based companies	243,656	243,656	—	—
Non-U.S. based companies	9,152	9,152	—	—
Fixed income securities				
Corporate debt securities	616,582	1,477	615,105	—
Government issued securities	471,059	379,128	91,931	—
Mutual funds				
Equity funds	111,466	111,466	—	—
Fixed income funds	12,912	12,912	—	—
Mutual funds measured at net asset value	259,776			
Common/Collective trusts measured at net asset value	2,711,736			
Limited Partnerships measured at net asset value	104,760			
Miscellaneous	(44,105)	—	(44,105)	—
Total at June 30, 2020	\$ 4,594,106	\$ 853,795	\$ 664,039	\$ —

	June 30, 2019	Quoted Prices In Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and cash equivalents	\$ 111,520	\$ 117,823	\$ (6,303)	\$ —
Equity securities				
U.S. based companies	226,027	226,027	—	—
Non-U.S. based companies	16,385	16,385	—	—
Fixed income securities				
Corporate debt securities	701,842	137,227	564,615	—
Government issued securities	528,394	367,518	160,876	—
Mutual funds				
Equity funds	266,240	266,240	—	—
Fixed income funds	183,732	183,732	—	—
Mutual funds measured at net asset value	304,504			
Common/Collective trusts				
Equity funds	84,790	84,790	—	—
Common/Collective trusts measured at net asset value	1,872,473			
Limited Partnerships measured at net asset value	240,803			
Miscellaneous	(291,741)	—	(291,741)	—
Total at June 30, 2019	\$ 4,244,969	\$ 1,399,742	\$ 427,447	\$ —

Cash and cash equivalents, including short-term investments, are valued at cost, which approximates fair value.

Equity securities are valued at the closing price reported on the active market on which the individual securities are traded. U.S. based companies include Parker stock with a fair value of \$243,656 and \$226,027 as of June 30, 2020 and 2019, respectively.

Fixed income securities are valued using both market observable inputs for similar assets that are traded on an active market and the closing price on the active market on which the individual securities are traded.

Mutual funds are valued using the closing market price reported on the active market on which the fund is traded or at net asset value per share and primarily consist of equity and fixed income funds. The equity funds primarily provide exposure to U.S. and international equities, real estate and commodities. The fixed income funds primarily provide exposure to high-yield securities and emerging market fixed income instruments. Mutual funds measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are presented in the tables above to permit reconciliation of the fair value hierarchy to total pension plan assets.

Common/Collective trusts primarily consist of equity, fixed income and real estate funds and are valued using the closing market price reported on the active market on which the fund is traded or at net asset value per share. Common/Collective trust investments can be redeemed without restriction after giving appropriate notice to the issuer. Generally, redemption of the entire investment balance of all common/collective trusts requires no more than a 90-day notice period. However, a certain real estate common/collective trust has a lock-up period expiring December 2020. The equity funds provide exposure to large, mid and small cap U.S. equities, international large and small cap equities and emerging market equities. The fixed income funds provide exposure to U.S., international and emerging market debt securities. Common/Collective trusts measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are presented in the tables above to permit reconciliation of the fair value hierarchy to total pension plan assets.

Limited Partnerships' interest in venture capital investments are measured at fair value based on net asset value as determined by the respective fund investment. Hedge funds are also included in this category. The hedge funds provide exposure to a variety of hedging strategies, including long/short equity, relative value, event driven and global macro and are also measured at fair value using the net asset value per share. As of June 30, 2020, the only limited partnership investment, subject to a lock-up period of two years, is restricted to a maximum redemption of 20 percent of its account balance every six months upon a 90-day notification period. Hedge fund investments can be redeemed either monthly or quarterly and without restriction after giving appropriate notice to the issuer. Redemption of the entire hedge fund investment balance generally requires no more than a 95-day notice period. Limited Partnerships measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are presented in the tables above to permit reconciliation of the fair value hierarchy to total pension plan assets.

Miscellaneous primarily includes insurance contracts held in the asset portfolio of the Company's non-U.S. defined benefit pension plans and net payables for securities purchased but not settled in the asset portfolio of the Company's U.S. defined benefit pension plan. Insurance contracts are valued at the present value of future cash flows promised under the terms of the insurance contracts.

The primary investment objective of equity securities and equity funds, within both the mutual fund and common/collective trust asset class, is to obtain capital appreciation in an amount that at least equals various market-based benchmarks. The primary investment objective of fixed income securities and fixed income funds, within both the mutual fund and common/collective trust asset class, is to provide for a constant stream of income while preserving capital. The primary investment objective of limited partnerships is to achieve capital appreciation through an investment program focused on specialized investment strategies. The primary investment objective of the investments in the miscellaneous category is to provide a stable rate of return over a specified period of time.

Employee Savings Plan - We sponsor an employee stock ownership plan ("ESOP") as part of our legacy savings and investment 401(k) plan. The ESOP is available to eligible domestic employees. Company matching contributions, up to a maximum of four percent of an employee's annual compensation, are recorded as compensation expense. Participants may direct company matching contributions to any investment option within the savings and investment 401(k) plan.

	2020	2019	2018
Shares held by ESOP	5,306,643	6,134,280	6,476,154
Company matching contributions	\$ 69,434	\$ 72,032	\$ 65,262

In addition to shares within the ESOP, as of June 30, 2020, employees have elected to invest in 1,573,247 shares of common stock within a company stock fund of the savings and investment 401(k) plan.

The Company has a retirement income account ("RIA") within our legacy savings and investment 401(k) plan. We make a cash contribution to the participant's RIA each year, the amount of which is based on the participant's age and years of service. Participants do not contribute to the RIA. The Company recognized \$38,387, \$30,603 and \$29,023 in expense related to the RIA in 2020, 2019 and 2018, respectively.

During 2020, we acquired several defined contribution plans comprising similar company matching contributions and RIA features as our legacy plan. We recorded additional expense of \$4,190 and \$7,439 for company matching contributions and RIA, respectively, for these acquired plans in 2020. These acquired plans will be merged into our legacy savings and investment 401(k) plan as soon as administratively possible. We recorded additional expense of \$4,481 for company matching contributions related to the acquired Clarcor defined contribution plans in 2018. The former employees of Clarcor became eligible to participate in our legacy savings and investment 401(k) plan during 2018.

Other Postretirement Benefits - The Company provides postretirement medical and life insurance benefits to certain retirees and eligible dependents. Most plans are contributory, with retiree contributions adjusted annually. The plans are unfunded and pay stated percentages of covered medically necessary expenses incurred by retirees after subtracting payments by Medicare or other providers and after stated deductibles have been met. For most plans, the Company has established cost maximums to more effectively control future medical costs. We have reserved the right to change these benefit plans.

The Company recognized \$1,551, \$1,838 and \$2,755 in expense related to other postretirement benefits in 2020, 2019 and 2018, respectively. Components of net other postretirement benefit cost, other than service cost, are included in other (income) expense, net in the Consolidated Statement of Income.

	2020	2019
Change in benefit obligation		
Benefit obligation at beginning of year	\$ 60,998	\$ 66,521
Service cost	250	205
Interest cost	1,686	2,043
Acquisition	12,638	—
Actuarial loss (gain)	1,276	(3,235)
Benefits paid	(4,718)	(4,536)
Benefit obligation at end of year	\$ 72,130	\$ 60,998
Funded status	\$ (72,130)	\$ (60,998)

Amounts recognized on the Consolidated Balance Sheet

Other accrued liabilities	\$ (6,374)	\$ (5,308)
Pensions and other postretirement benefits	(65,756)	(55,690)
Net amount recognized	\$ (72,130)	\$ (60,998)

Amounts recognized in Accumulated Other Comprehensive (Loss)

Net actuarial gain	\$ (173)	\$ (1,713)
Prior service credit	(73)	(194)
Net amount recognized	\$ (246)	\$ (1,907)

The presentation of the amounts recognized on the Consolidated Balance Sheet and in accumulated other comprehensive (loss) is on a debit (credit) basis and is before the effect of income taxes.

The benefit obligation increased in 2020, primarily reflected in the acquisition component, is a result of assuming the Lord postretirement plans. The decrease in the benefit obligation in 2019, largely reflected in the net actuarial gain component, is primarily due to updated census data resulting from a different mix of benefit selections and actuarial assumptions reflecting lower benefit claims offset by decreases in the discount rates.

The assumptions used to measure the net periodic benefit cost for postretirement benefit obligations are:

	2020	2019	2018
Discount rate	3.15%	3.92%	3.46%
Current medical cost trend rate (Pre-65 participants)	7.09%	7.47%	8.19%
Current medical cost trend rate (Post-65 participants)	7.43%	7.87%	9.79%
Ultimate medical cost trend rate	4.50%	4.50%	4.50%
Medical cost trend rate decreases to ultimate in year	2028	2026	2025

The discount rate assumption used to measure the benefit obligation was 2.14 percent in 2020 and 3.15 percent in 2019.

Estimated future benefit payments for other postretirement benefits in the five years ending June 30, 2021 through 2025 are \$6,373, \$5,772, \$5,256, \$4,938 and \$4,622, respectively, and \$20,172 in the aggregate for the five years ending June 30, 2026 through June 30, 2030.

Other - The Company has established nonqualified deferred compensation programs, which permit officers, directors and certain management employees to annually elect to defer a portion of their compensation, on a pre-tax basis, until their retirement. The retirement benefit to be provided is based on the amount of compensation deferred, company matching contributions and earnings on the deferrals. In addition, we maintain a defined contribution nonqualified supplemental executive pension plan in which the Company is the only contributor. During 2020, 2019 and 2018, we recorded expense relating to these programs of \$5,863, \$5,916 and \$13,420, respectively.

The Company has invested in corporate-owned life insurance policies to assist in meeting the obligations under these programs. The policies are held in a rabbi trust and are recorded as assets of the Company.

13. Equity

Changes in accumulated other comprehensive (loss) in shareholders' equity by component:

	Foreign Currency Translation Adjustment and Other	Retirement Benefit Plans	Total
Balance June 30, 2018	\$ (943,477)	\$ (819,609)	\$ (1,763,086)
Impact of adoption of ASU 2016-01	(1,734)	—	(1,734)
Other comprehensive (loss) before reclassifications	(70,023)	(325,213)	(395,236)
Amounts reclassified from accumulated other comprehensive (loss)	3,578	97,430	101,008
Balance June 30, 2019	\$ (1,011,656)	\$ (1,047,392)	\$ (2,059,048)
Other comprehensive (loss) before reclassifications	(182,281)	(447,161)	(629,442)
Amounts reclassified from accumulated other comprehensive (loss)	—	129,615	129,615
Balance June 30, 2020	\$ (1,193,937)	\$ (1,364,938)	\$ (2,558,875)

Significant reclassifications out of accumulated other comprehensive (loss) in shareholders' equity during 2020:

Details about Accumulated Other Comprehensive (Loss) Components	Income (Expense) Reclassified from Accumulated Other Comprehensive (Loss)	Consolidated Statement of Income Classification
Retirement benefit plans		
Amortization of prior service cost and initial net obligation	\$ (5,531)	Other (income) expense, net
Recognized actuarial loss	(165,550)	Other (income) expense, net
Total before tax	(171,081)	
Tax benefit	41,466	
Net of tax	\$ (129,615)	

Significant reclassifications out of accumulated other comprehensive (loss) in shareholders' equity during 2019:

Details about Accumulated Other Comprehensive (Loss) Components	Income (Expense) Reclassified from Accumulated Other Comprehensive (Loss)	Consolidated Statement of Income Classification
Retirement benefit plans		
Amortization of prior service cost and initial net obligation	\$ (6,552)	Other (income) expense, net
Recognized actuarial loss	(121,534)	Other (income) expense, net
Total before tax	(128,086)	
Tax benefit	30,656	
Net of tax	\$ (97,430)	

Share Repurchases - The Company has a program to repurchase its common shares. On October 22, 2014, the Board of Directors of the Company approved an increase in the overall number of shares authorized to repurchase under the program so that, beginning on such date, the aggregate number of shares authorized for repurchase was 35 million. There is no limitation on the number of shares that can be repurchased in a year. Repurchases may be funded primarily from operating cash flows and commercial paper borrowings and the shares are initially held as treasury shares. In March 2020, the Company suspended the share repurchase program in response to business uncertainty resulting from the COVID-19 pandemic.

The number of common shares repurchased at the average purchase price follows:

	2020	2019	2018
Shares repurchased	818,581	4,755,273	1,738,234
Average price per share including commissions	\$ 179.29	\$ 168.23	\$ 172.59

14. Stock Incentive Plans

The Company's 2016 Omnibus Stock Incentive Plan ("2016 SIP") provides for the granting of share-based incentive awards in the form of nonqualified stock options, stock appreciation rights ("SARs"), restricted stock units ("RSUs") and restricted and unrestricted stock to officers and key employees of the Company. On October 23, 2019, our shareholders approved the Board of Directors' recommendation to increase the number of shares of common stock authorized for issuance under the 2016 SIP by 7.8 million shares. The amended aggregate number of shares of common stock authorized for total issuance under the 2016 SIP is 23.8 million. At June 30, 2020, 13.5 million common stock shares were available for future issuance.

We satisfy share-based incentive award obligations by issuing shares of common stock out of treasury, which have been repurchased pursuant to our share repurchase program described in Note 13, or through the issuance of previously unissued common stock.

SARs - Upon exercise, SARs entitle the participant to receive shares of common stock equal to the increase in value of the award between the grant date and the exercise date. SARs are exercisable from one to three years after the date of grant and expire no more than 10 years after grant.

The fair value of each SAR award granted in 2020, 2019 and 2018 was estimated at the date of grant using a Black-Scholes option pricing model with the following weighted-average assumptions:

	2020	2019	2018
Risk-free interest rate	1.5%	2.8%	1.9%
Expected life of award	5.1 years	5.1 years	5.2 years
Expected dividend yield of stock	2.0%	1.9%	2.0%
Expected volatility of stock	25.9%	24.2%	23.4%
Weighted-average fair value	\$ 31.68	\$ 35.09	\$ 29.71

The risk-free interest rate was based on U.S. Treasury yields with a term similar to the expected life of the award. The expected life of the award was derived by referring to actual exercise and post-vesting employment termination experience. The expected dividend yield was based on our historical dividend rate and stock price over a period similar to the expected life of the award. The expected volatility of stock was derived by referring to changes in our historical common stock prices over a time-frame similar to the expected life of the award.

SAR activity during 2020 is as follows (aggregate intrinsic value in millions):

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding June 30, 2019	5,749,455	\$ 119.29		
Granted	815,035	\$ 158.90		
Exercised	(1,341,539)	\$ 91.37		
Canceled	(38,981)	\$ 161.10		
Outstanding June 30, 2020	5,183,970	\$ 132.42	6.0 years	\$ 263.6
Exercisable June 30, 2020	3,644,468	\$ 120.28	5.0 years	\$ 229.6

A summary of the status and changes of shares subject to SAR awards and the related average price per share follows:

	Number of Shares	Weighted-Average Grant Date Fair Value
Nonvested June 30, 2019	1,661,198	\$ 31.58
Granted	815,035	\$ 31.68
Vested	(899,126)	\$ 30.26
Canceled	(37,605)	\$ 31.46
Nonvested June 30, 2020	1,539,502	\$ 32.41

During 2020, 2019 and 2018, we recognized stock-based compensation expense of \$26,108, \$26,568 and \$27,422, respectively, relating to SAR awards. The Company derives a tax deduction measured by the excess of the market value over the grant price at the date stock-based awards are exercised. The related income tax benefit was credited to income tax expense.

At June 30, 2020, \$10,364 of expense with respect to nonvested SAR awards has yet to be recognized and will be amortized into expense over a weighted-average period of approximately 14 months. The total fair value of shares vested during 2020, 2019 and 2018 was \$27,209, \$25,365 and \$26,461, respectively.

Information related to SAR awards exercised during 2020, 2019 and 2018 is as follows:

	2020	2019	2018
Net cash proceeds	\$ 2,623	\$ 2,475	\$ 3,682
Intrinsic value	133,641	95,502	136,000
Income tax benefit	\$ 21,132	\$ 15,584	\$ 28,701
Number of shares surrendered	228,986	158,610	269,670

RSUs - RSUs constitute an agreement to deliver shares of common stock to the participant at the end of a vesting period. Generally, the RSUs granted to employees vest, and the underlying stock is issued ratably, over a three-year graded vesting period. Nonvested RSUs may not be transferred and do not have dividend or voting rights. For each nonvested RSU, recipients are entitled to receive a dividend equivalent, payable in cash or common shares, equal to the cash dividend per share paid to common shareholders.

The fair value of each RSU award granted in 2020, 2019 and 2018 was based on the fair market value of our common stock on the date of grant. A summary of the status and changes of shares subject to RSU awards for employees and the related average price per share follows:

	Number of Shares	Weighted-Average Grant Date Fair Value
Nonvested June 30, 2019	374,080	\$ 155.07
Granted	150,489	\$ 160.54
Vested	(158,823)	\$ 147.20
Canceled	(15,173)	\$ 162.41
Nonvested June 30, 2020	350,573	\$ 160.66

During 2020, 2019 and 2018, we recognized stock-based compensation expense of \$25,560, \$25,258 and \$24,073, respectively, relating to RSU awards for employees. At June 30, 2020, \$18,474 of expense with respect to nonvested RSU awards has yet to be recognized and will be amortized into expense over a weighted-average period of approximately 19 months. The total fair value of RSU awards vested during 2020, 2019 and 2018 was \$23,380, \$20,475 and \$20,681, respectively. We recognized an income tax benefit of \$1,037, \$1,548 and \$2,451 relating to the issuance of common stock for RSU awards that vested during 2020, 2019 and 2018, respectively.

Additionally, we granted RSUs with a one-year vesting period to non-employee members of the Board of Directors. Recipients receive a dividend equivalent payable in common shares, equal to the cash dividend per share paid to common shareholders. A summary of the status and changes of shares subject to Board of Directors RSU awards and the related average price per share follows:

	Number of Shares	Weighted-Average Grant Date Fair Value
Nonvested June 30, 2019	8,003	\$ 147.38
Granted	8,300	\$ 187.31
Vested	(8,041)	\$ 147.38
Nonvested June 30, 2020	8,262	\$ 187.49

The fair value of each RSU award granted to the Board of Directors in 2020, 2019 and 2018 was based on the fair market value of our common stock on the date of grant. In 2020, 2019 and 2018, we recognized stock-based compensation expense of \$1,434, \$1,345, and \$1,697, respectively, relating to these awards. During 2020, 2019 and 2018, we recognized an income tax benefit (cost) of \$86, \$(82) and \$270, respectively related to the vesting of Board of Directors RSU awards. At June 30, 2020, \$510 of expense with respect to nonvested RSU awards granted to the Board of Directors has yet to be recognized and will be amortized into expense over a weighted-average period of approximately four months.

LTIP - The Company's Long Term Incentive Plans ("LTIP") provide for the issuance of unrestricted stock to certain officers and key employees based on the attainment of certain goals relating to our revenue growth, earnings per share growth and return on invested capital during the three-year performance period.

Stock issued and surrendered for LTIP	2020	2019	2018
LTIP three-year plan	2017-18-19	2016-17-18	2015-16-17
Number of shares issued	279,469	293,136	308,278
Number of shares surrendered	132,449	134,169	139,918
Share value on date of issuance	\$ 134.95	\$ 183.00	\$ 176.39
Total value of shares issued	\$ 37,714	\$ 53,644	\$ 54,377

Under the Company's 2018-19-20 LTIP, a payout of unrestricted stock will be issued in April 2021.

The fair value of each LTIP award granted in 2020, 2019 and 2018 was based on the fair market value of our common stock on the date of grant. Beginning January 2019, we changed the terms of the LTIP plan allowing newly granted LTIP awards to earn a dividend equivalent unit, payable in common shares, equal to the cash dividend per share paid to common shareholders. These dividend equivalent units do not have dividend or voting rights and are subject to the same performance goals as the initial award granted. Since the revised terms of the LTIP were not applied retroactively, any nonvested LTIP awards granted prior to January 2019 are ineligible to earn dividend equivalent units. A summary of the status and changes of shares relating to the LTIP and the related average price per share follows:

	Number of Shares	Weighted-Average Grant Date Fair Value
Nonvested June 30, 2019	600,717	\$ 169.36
Granted	173,075	\$ 197.84
Vested	(226,081)	\$ 149.52
Canceled	(8,652)	\$ 174.29
Nonvested June 30, 2020	539,059	\$ 186.75

During 2020, 2019 and 2018, we recorded stock-based compensation expense of \$58,273, \$50,908 and \$65,640, respectively, relating to the LTIP. During 2020, 2019 and 2018, we recognized an income tax (cost) benefit of \$(1,251), \$14,101 and \$3,893, respectively, relating to the LTIP.

15. Research and Development

Research and development costs amounted to \$293,837 in 2020, \$294,852 in 2019 and \$327,877 in 2018. These amounts include both costs incurred by the Company related to independent research and development initiatives as well as costs incurred in connection with research and development contracts. Costs incurred in connection with research and development contracts amounted to \$56,964 in 2020, \$44,484 in 2019 and \$40,823 in 2018. These costs are included in the total research and development cost for each of the respective years.

16. Financial Instruments

The Company's financial instruments consist primarily of cash and cash equivalents, marketable securities and other investments, accounts receivable and long-term investments as well as obligations under accounts payable, trade, notes payable and long-term debt. Due to their short-term nature, the carrying values for cash and cash equivalents, accounts receivable, accounts payable, trade and notes payable approximate fair value.

Marketable securities and other investments include deposits and equity investments. Deposits are recorded at cost, and equity investments are recorded at fair value. Changes in fair value of equity investments are recognized in net income.

Gross unrealized gains and losses related to equity investments were not material as of June 30, 2020 and 2019. There were no facts or circumstances that indicated the unrealized losses were other than temporary.

The carrying value of long-term debt and estimated fair value of long-term debt at June 30 are as follows:

	2020	2019
Carrying value of long-term debt	\$ 7,809,541	\$ 6,596,380
Estimated fair value of long-term debt	8,574,401	7,012,641

The fair value of long-term debt is classified within level 2 of the fair value hierarchy.

The Company utilizes derivative and non-derivative financial instruments, including forward exchange contracts, costless collar contracts, cross-currency swap contracts and certain foreign denominated debt designated as net investment hedges, to manage foreign currency transaction and translation risk. The derivative financial instrument contracts are with major investment grade financial institutions, and the Company does not anticipate any material non-performance by any of the counterparties. The Company does not hold or issue derivative financial instruments for trading purposes.

The Company's €700 million aggregate principal amount of Senior Notes due 2025 have been designated as a hedge of the Company's net investment in certain foreign subsidiaries. The translation of the Senior Notes due 2025 into U.S. dollars is recorded in accumulated other comprehensive (loss) and remains there until the underlying net investment is sold or substantially liquidated.

During 2020, we settled the cross-currency swap with an aggregate notional amount of €235 million, which was designated as a net investment hedge, for proceeds of \$44 million. These proceeds are included in cash flows from investing activities in the Consolidated Statement of Cash Flows. Additionally, we entered into two cross-currency swaps with aggregate notional amounts of €359 million and ¥2,149 million due June 2029. These cross-currency swaps have been designated as hedges of net investments in certain foreign subsidiaries.

Derivative financial instruments are recognized on the Consolidated Balance Sheet as either assets or liabilities and are measured at fair value.

The location and fair value of derivative financial instruments reported on the Consolidated Balance Sheet are as follows:

	Balance Sheet Caption	2020	2019
Net investment hedges			
Cross-currency swap contracts	Investments and other assets	\$ —	\$ 24,545
Cross-currency swap contracts	Other liabilities	30,860	—
Cash flow hedges			
Forward exchange contracts	Non-trade and notes receivable	5,311	13,242
Forward exchange contracts	Other accrued liabilities	3,474	2,578
Costless collar contracts	Non-trade and notes receivable	2,250	457
Costless collar contracts	Other accrued liabilities	661	1,934

The cross-currency swap, forward exchange contracts and costless collar contracts are reflected on a gross basis in the Consolidated Balance Sheet. The Company has not entered into any master netting arrangements.

The cross-currency swap contracts have been designated as hedging instruments. The forward exchange and costless collar contracts have not been designated as hedging instruments and are considered to be economic hedges of forecasted transactions.

Derivatives not designated as hedges are adjusted to fair value by recording gains and losses through the cost of sales caption in the Consolidated Statement of Income.

Derivatives designated as hedges are adjusted to fair value by recording gains and losses through accumulated other comprehensive (loss) on the Consolidated Balance Sheet until the hedged item is recognized in earnings. We elected to assess the effectiveness of the €359 million and ¥2,149 million cross-currency swap hedging instruments using the spot method. Under this method, the periodic interest settlements are recognized directly in earnings through interest expense.

Net (losses) of \$(27) million relating to forward exchange contracts were recorded within cost of sales on the Consolidated Statement of Income for the year ended June 30, 2020. All other gains or losses on derivative financial instruments that were recorded in the Consolidated Statement of Income during 2020, 2019 and 2018 were not material.

(Losses) gains on derivative and non-derivative financial instruments that were recorded in accumulated other comprehensive (loss) in the Consolidated Balance Sheet are as follows:

	2020	2019
Cross-currency swap contracts	\$ (9,435)	\$ 13,723
Foreign denominated debt	7,205	16,458

During 2020, the periodic interest settlements related to the cross currency swaps were not material. No portion of these financial instruments were excluded from the effectiveness testing during 2019 and 2018.

A summary of financial assets and liabilities that were measured at fair value on a recurring basis at June 30, 2020 and 2019 are as follows:

	June 30, 2020	Quoted Prices In Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Equity securities	\$ 7,901	\$ 7,901	\$ —	\$ —
Derivatives	7,561	—	7,561	—
Liabilities:				
Derivatives	34,995	—	34,995	—

	June 30, 2019	Quoted Prices In Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Equity securities	\$ 7,533	\$ 7,533	\$ —	\$ —
Derivatives	38,244	—	38,244	—
Investments measured at net asset value	9,728			
Liabilities:				
Derivatives	4,512	—	4,512	—

The fair values of the equity securities are determined using the closing market price reported in the active market in which the fund is traded.

Derivatives consist of forward exchange, costless collar and cross-currency swap contracts, the fair values of which are calculated using market observable inputs including both spot and forward prices for the same underlying currencies. The calculation of fair value of the cross-currency swap contracts also utilizes a present value cash flow model that has been adjusted to reflect the credit risk of either the Company or the counterparty.

Investments measured at net asset value primarily consist of investments in fixed income mutual funds, which are measured at fair value using the net asset value per share practical expedient. These investments have not been categorized in the fair value hierarchy. The Company has the ability to liquidate these investments after giving appropriate notice to the issuer.

The primary investment objective for all investments is the preservation of principal and liquidity while earning income.

There are no other financial assets or financial liabilities that are marked to market on a recurring basis.

17. Contingencies

The Company is involved in various litigation matters arising in the normal course of business, including proceedings based on product liability claims, workers' compensation claims and alleged violations of various environmental laws. We are self-insured in the United States for health care, workers' compensation, general liability and product liability up to predetermined amounts, above which third party insurance applies. Management regularly reviews the probable outcome of these proceedings, the expenses expected to be incurred, the availability and limits of the insurance coverage and the established accruals for liabilities. While the outcome of pending proceedings cannot be predicted with certainty, management believes that any liabilities that may result from these proceedings will not have a material adverse effect on our liquidity, financial condition or results of operations.

Environmental - The Company is currently responsible for environmental remediation at various manufacturing facilities presently or formerly operated by the Company and has been named as a "potentially responsible party," along with other companies, at off-site waste disposal facilities and regional sites.

As of June 30, 2020, we had an accrual of \$19,351 for environmental matters, which are probable and reasonably estimable. The accrual is recorded based upon the best estimate of costs to be incurred in light of the progress made in determining the magnitude of remediation costs, the timing and extent of remedial actions required by governmental authorities and the amount of our liability in proportion to other responsible parties.

Our estimated total liability for environmental matters ranges from a minimum of \$19.4 million to a maximum of \$81.9 million. The largest range for any one site is approximately \$10.5 million. The actual costs we will incur are dependent on final determination of contamination and required remedial action, negotiations with governmental authorities with respect to cleanup levels, changes in regulatory requirements, innovations in investigatory and remedial technologies, effectiveness of remedial technologies employed, the ability of other responsible parties to pay, and any insurance or other third-party recoveries.

18. Quarterly Information (Unaudited)

2020	1st	2nd	3rd	4th	Total
Net sales	\$ 3,334,511	\$ 3,497,974	\$ 3,702,432	\$ 3,160,603	\$ 13,695,520
Net income attributable to common shareholders	338,898	204,474	367,253	295,716	1,206,341
Diluted earnings per share	2.60	1.57	2.83	2.27	9.29
2019	1st	2nd	3rd	4th	Total
Net sales	\$ 3,479,294	\$ 3,472,045	\$ 3,687,518	\$ 3,681,467	\$ 14,320,324
Net income attributable to common shareholders	375,711	311,737	411,248	413,668	1,512,364
Diluted earnings per share	2.79	2.36	3.14	3.17	11.48

Earnings per share amounts are computed independently for each of the quarters presented; therefore, the sum of the quarterly earnings per share amounts may not equal the total computed for the year.

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure. None.

ITEM 9A. Controls and Procedures. The Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's principal executive officer and principal financial officer, of the effectiveness of the Company's disclosure controls and procedures as of June 30, 2020. Based on this evaluation, the Company's principal executive officer and principal financial officer concluded that, as of June 30, 2020, the Company's disclosure controls and procedures were effective.

In response to the COVID-19 pandemic, many of our team members began working from home during the second half of 2020. We are continually monitoring and assessing the changing business environment resulting from COVID-19 on our internal controls to minimize the impact on their design and operating effectiveness. Management has taken measures to ensure that our disclosure controls and procedures and internal controls over financial reporting remained effective and were not materially affected during this period.

The Company acquired Lord and Exotic during October 2019 and September 2019, respectively, and is currently integrating their processes and internal controls. Except for the Lord and Exotic acquisitions, there were no changes in the Company's internal controls over financial reporting during the quarter ended June 30, 2020 that materially affected, or are reasonably likely to materially affect, its internal controls over financial reporting.

Management's Report On Internal Control Over Financial Reporting

Our management, including the principal executive officer and the principal financial officer, is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)). We assessed the effectiveness of our internal control over financial reporting as of June 30, 2020. We have excluded Lord and Exotic from our evaluation of internal control over financial reporting as of June 30, 2020 because these entities were acquired in business combinations during the year. On a combined basis, these entities represented approximately 28 percent of total assets at June 30, 2020 and approximately seven percent of net sales for the year then ended. In making this assessment, we used the criteria established by the Committee of Sponsoring Organizations of the Treadway Commission in "Internal Control-Integrated Framework (2013)." We concluded that based on our assessment, the Company's internal control over financial reporting was effective as of June 30, 2020.

Deloitte & Touche LLP, the independent registered public accounting firm that audited the Company's consolidated financial statements, has issued an attestation report on the Company's internal control over financial reporting as of June 30, 2020, which is included in Part II, Item 8 of this Annual Report on Form 10-K.

ITEM 9B. Other Information. None.

PART III

ITEM 10. Directors, Executive Officers and Corporate Governance. Information required with respect to the Directors of the Company is set forth under the caption "Item I – Election of Directors" in the definitive Proxy Statement for the Company's 2020 Annual Meeting of Shareholders, to be held October 28, 2020 (the "2020 Proxy Statement"), and is incorporated herein by reference. Information with respect to the executive officers of the Company is included in Part I, Item 1C of this Annual Report on Form 10-K under the caption "Information about our Executive Officers."

The information set forth under the caption "Delinquent Section 16(a) Reports" in the 2020 Proxy Statement is incorporated herein by reference.

The Company has adopted a Global Code of Business Conduct that applies to its Chief Executive Officer, Chief Financial Officer and Controller. The Global Code of Business Conduct is posted on the Company's investor relations internet website at www.phstock.com under the Corporate Governance page. Any amendment to, or waiver from, a provision of the Company's Global Code of Business Conduct that applies to its Chief Executive Officer, Chief Financial Officer or Controller will also be posted at www.phstock.com under the Corporate Governance page.

The information set forth under the captions "Committees of our Board of Directors - The Audit Committee" and "Committees of Our Board of Directors - Board Committees; Committee Charters" in the 2020 Proxy Statement is incorporated herein by reference.

ITEM 11. Executive Compensation. The information set forth under the captions "Compensation Discussion and Analysis," "Compensation Committee Report," and "Compensation Tables" in the 2020 Proxy Statement is incorporated herein by reference.

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters. The information set forth under the captions "Principal Shareholders" in the 2020 Proxy Statement is incorporated herein by reference.

Equity Compensation Plan Information. The following table sets forth certain information regarding the Company's equity compensation plans as of June 30, 2020, unless otherwise indicated.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under Equity compensation plans
Equity compensation plans approved by security holders	6,635,723 ⁽¹⁾	\$134.29	23,486,752 ⁽²⁾
Equity compensation plans not approved by security holders	—	—	—
Total	6,635,723	\$134.29	23,486,752

⁽¹⁾Includes the maximum future payouts of common stock that may be issued under the calendar year 2018-19-20, 2019-20-21 and 2020-21-22 long term incentive performance awards ("LTIP awards"). For these LTIP awards, payouts will be determined based on achieving an average return on average equity of four percent or an average free cash flow margin of four percent. If these performance measures are achieved, the participants will be eligible to receive the maximum payout of 200 percent. The Human Resources and Compensation Committee will then compare our performance to that of a group of our peers and, if appropriate, apply its discretion to reduce the final payouts based on any performance measures that the Committee determines to be appropriate.

⁽²⁾The maximum number of shares of our common stock that may be issued under the Amended and Restated 2016 Omnibus Stock Incentive Plan is 23.8 million shares, of which approximately 13.5 million shares are available for future issuance. The maximum number of shares that may be issued under the Global Employee Stock Purchase Plan is 10 million shares, of which approximately 9.9 million shares are still available for future issuance.

ITEM 13. Certain Relationships and Related Transactions, and Director Independence. The information set forth under the captions "Other Governance Matters - Review and Approval of Transactions with Related Persons" and "Corporate Governance: Board of Directors - Director Independence" in the 2020 Proxy Statement is incorporated herein by reference.

ITEM 14. Principal Accountant Fees and Services. The information set forth under the captions "Audit Fees and All Other Fees" and "Audit Committee Pre-Approval Policies and Procedures" in the 2020 Proxy Statement is incorporated herein by reference.

ITEM 15. Exhibits and Financial Statement Schedules.

a. The following are filed as part of this report:

	Page Number in Form 10-K
1. <u>Financial Statements</u>	
Consolidated Statement of Income	32
Consolidated Statement of Comprehensive Income	33
Business Segment Information	34
Consolidated Balance Sheet	36
Consolidated Statement of Cash Flows	37
Consolidated Statement of Equity	38
Notes to Consolidated Financial Statements	39
2. <u>Schedule</u>	
II - Valuation and Qualifying Accounts	74
3. <u>Exhibits</u>	

Exhibit No.	Description of Exhibit
(2)(a)	Agreement and Plan of Merger among Parker-Hannifin Corporation, CLARCOR, Inc. and Parker Eagle Corporation dated as of December 1, 2016, incorporated by reference to Exhibit 2.1 of Registrant's Form 8-K filed with the SEC on December 1, 2016 (Commission File No. 1-4982).
(2)(b)	Agreement and Plan of Merger among Parker-Hannifin Corporation, Erie Merger Sub, Inc., LORD Corporation and Shareholder Representative Services LLC as the shareholders' representative, dated as of April 26, 2019 , incorporated by reference to Exhibit 2.1 of Registrant's Form 8-K filed with the SEC on April 29, 2019 (Commission File No. 1-4982).
(2)(c)	Share Purchase Agreement, among Parker-Hannifin Corporation, EMFCO Holdings Incorporated, the shareholders of the Company, and Fortis Advisors LLC, as the Sellers' representative, dated as of July 26, 2019 , incorporated by reference to Exhibit 2.1 of Registrant's Form 8-K filed with the SEC on July 29, 2019 (Commission File No. 1-4982).
	<u>Articles of Incorporation and By-Laws:</u>
(3)(a)	Amended Articles of Incorporation , incorporated by reference to Exhibit 3(a) to Registrant's Report on Form 10-K for the fiscal year ended June 30, 2016 (Commission File No. 1-4982).
(3)(b)	Regulations, Amended and Restated as of January 24, 2019, incorporated by reference to Exhibit 3(a) to Registrant's Report on Form 10-Q for the quarterly period ended December 31, 2018 (Commission File No. 1-4982).
	<u>Instruments Defining Rights of Security Holders:</u>
(4)(a)	Description of Parker-Hannifin's Securities , incorporated by reference to Exhibit 4(a) to Registrant's Report on Form 10-K for the year ended June 30, 2019 (Commission File No. 1-4982).
	<u>Material Contracts:</u>
(10)(a)	Form of Parker-Hannifin Corporation Amended and Restated Change in Control Severance Agreement entered into by Registrant and its executive officers, incorporated by reference to Exhibit 10(a) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2008 (Commission File No. 1-4982).

- (10)(b) [Form of Parker-Hannifin Corporation Change in Control Severance Agreement for Executive Officers elected after September 1, 2015 at or above Grade 29](#), incorporated by reference to Exhibit 10(c) to Registrant's Report on Form 10-K for the fiscal year ended June 30, 2016 (Commission File No. 1-4982).
- (10)(c) [Form of Parker-Hannifin Corporation Change in Control Severance Agreement for Executive Officers dated after September 1, 2015 below Grade 29](#), incorporated by reference to Exhibit 10(d) to Registrant's Report on Form 10-K for the fiscal year ended June 30, 2016 (Commission File No. 1-4982).
- (10)(d) [Parker-Hannifin Corporation Amended and Restated Change in Control Severance Plan](#), incorporated by reference to Exhibit 10(b) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2008 (Commission File No. 1-4982).
- (10)(e) [Form of Indemnification Agreement entered into by the Registrant and its directors and executive officers](#), incorporated by reference to Exhibit 10(c) to Registrant's Report on Form 10-K for the fiscal year ended June 30, 2003 (Commission File No. 1-4982).
- (10)(f) [Description of the Parker-Hannifin Corporation Officer Life Insurance Plan](#), incorporated by reference to Exhibit 10(h) to Registrant's Report on Form 10-K for the fiscal year ended June 30, 2005 (Commission File No. 1-4982).
- (10)(g) [Parker-Hannifin Corporation Amended and Restated Supplemental Executive Retirement Benefits Program](#), effective July 1, 2014, incorporated by reference to Exhibit 10(a) to Registrant's Report on Form 10-Q for the quarterly period ended March 31, 2016 (Commission File No. 1-4982).
- (10)(h) [Parker-Hannifin Corporation Amended and Restated Defined Contribution Supplemental Executive Retirement Program](#), effective January 22, 2015, incorporated by reference to Exhibit 10(c) to Registrant's Report on Form 10-Q for the quarterly period ended December 31, 2015 (Commission File No. 1-4982).
- (10)(i) [Summary of the Parker-Hannifin Corporation Executive Disability Insurance Plan](#), incorporated by reference to Exhibit 10(j) to Registrant's Report on Form 10-K for the fiscal year ended June 30, 2016 (Commission File No. 1-4982).
- (10)(j) [Parker-Hannifin Corporation Amended and Restated 2003 Stock Incentive Plan](#), incorporated by reference to Exhibit 10(b) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2010 (Commission File No. 1-4982).
- (10)(k) [Parker-Hannifin Corporation Amended and Restated 2009 Omnibus Stock Incentive Plan](#), incorporated by reference to Appendix A to Registrant's Definitive Proxy Statement filed with the Commission on September 24, 2012 (Commission File No. 1-4982).
- (10)(l) [Parker-Hannifin Corporation 2016 Omnibus Stock Incentive Plan](#), incorporated by reference to Annex B to Registrant's Definitive Proxy Statement on Schedule 14A, filed with the SEC on September 26, 2016 (Commission File No. 1-4982).
- (10)(m) [Parker-Hannifin Corporation First Amendment to 2016 Omnibus Stock Incentive Plan](#), effective April 1, 2017, incorporated by reference to Exhibit 10(a) to Registrant's Report on Form 10-Q for the quarterly period ended March 31, 2017 (Commission File No. 1-4982).
- (10)(n) [Parker-Hannifin Corporation Amended and Restated 2016 Omnibus Stock Incentive Plan, effective as of October 23, 2019](#), incorporated by reference to Exhibit 10.1 to Registrant's Report on Form 8-K filed with the SEC on October 28, 2019 (Commission File No. 1-4982).
- (10)(o) [Parker-Hannifin Corporation 2015 Performance Bonus Plan](#) incorporated by reference to Appendix B to Registrant's Definitive Proxy Statement filed with the Commission on September 28, 2015 (Commission File No. 1-4982).
- (10)(p) [Form of 2010 Notice of Stock Options with Tandem Stock Appreciation Rights for Executive Officers](#), incorporated by reference to Exhibit 10(d) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2009 (Commission File No. 1-4982).
- (10)(q) [Form of 2011 Parker-Hannifin Corporation Stock Appreciation Rights Award Agreement for executive officers](#), incorporated by reference to Exhibit 10.2 to Registrant's Report on Form 8-K filed with the SEC on August 17, 2010 (Commission File No. 1-4982).
- (10)(r) [2011 Parker-Hannifin Corporation Stock Appreciation Rights Terms and Conditions for executive officers](#), incorporated by reference to Exhibit 10.1 to Registrant's Report on Form 8-K filed with the SEC on August 17, 2010 (Commission File No. 1-4982).

- (10)(s) [Form of Parker-Hannifin Corporation Stock Appreciation Rights Award Agreement](#) for executive officers, incorporated by reference to Exhibit 10(a) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2011 (Commission File No. 1-4982).
- (10)(t) [Parker-Hannifin Corporation Stock Appreciation Rights Terms and Conditions](#) for executive officers, incorporated by reference to Exhibit 10(b) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2011 (Commission File No. 1-4982).
- (10)(u) [Form of 2018 Parker-Hannifin Corporation Stock Appreciation Rights Award Agreement, incorporated by reference to Exhibit 10\(d\) to Registrant's Report on Form 10-Q for the quarterly period ended December 31, 2018 \(Commission File No. 1-4982\).](#)
- (10)(v) [2018 Parker-Hannifin Corporation Stock Appreciation Rights Terms and Conditions, incorporated by reference to Exhibit 10\(e\) to Registrant's Report on Form 10-Q for the quarterly period ended December 31, 2018 \(Commission File No. 1-4982\)](#)
- (10)(w) [Parker-Hannifin Corporation Target Incentive Plan](#), incorporated by reference to Exhibit 10(d) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2010 (Commission File No. 1-4982).
- (10)(x) [Parker-Hannifin Corporation Target Incentive Plan Subject to Performance Bonus Plan](#), incorporated by reference to Exhibit 10(e) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2010 (Commission File No. 1-4982).
- (10)(y) [Parker-Hannifin Corporation Long-Term Incentive Performance Plan Under the Performance Bonus Plan, as amended and restated](#), effective January 20, 2016, incorporated by reference to Exhibit 10(aa) to Registrant's Annual Report on Form 10-K for the fiscal year ended June 30, 2016 (Commission file No. 1-4982).
- (10)(z) [Form of Notice of Award under the Parker-Hannifin Corporation Long-Term Incentive Performance Plan Under the Performance Bonus Plan \(as Amended and Restated\), incorporated by reference to Exhibit 10\(bb\) to the Registrant's Annual Report on Form 10-K for the fiscal year ended June 30, 2016 \(Commission file No. 1-4982\).](#)
- (10)(aa) [Form of Notice of Award under the Parker-Hannifin Corporation Long-Term Incentive Plan Under the Performance Bonus Plan \(as Amended and Restated\), effective as of January 23, 2019, incorporated by reference to Exhibit 10\(f\) to the Registrant's Annual Report on Form 10-Q for the quarterly period ended December 31, 2018 \(Commission file No. 1-4982\).](#)
- (10)(bb) [Parker-Hannifin Corporation Long-Term Incentive Performance Plan Under the Performance Bonus Plan \(as Amended and Restated\), effective as of January 23, 2019, incorporated by reference to Exhibit 10\(g\) to the Registrant's Report on Form 10-Q for the quarterly period ended December 31, 2018 \(Commission File No. 1-4982\).](#)
- (10)(cc) [Parker-Hannifin Corporation Restricted Stock Unit Award Agreement dated August 17, 2016 for Lee C. Banks](#), incorporated by reference to Exhibit 10(a) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2014 (Commission File No. 1-4982).
- (10)(dd) [Parker-Hannifin Corporation Restricted Stock Unit Terms and Conditions for Lee C. Banks](#), incorporated by reference to Exhibit 10(b) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2014 (Commission File No. 1-4982).
- (10)(ee) [Form of Parker-Hannifin Corporation Restricted Stock Unit Award Agreement, incorporated by reference to Exhibit 10\(a\) to Registrant's Report on Form 10-Q for the quarterly period ended December 31, 2018 \(Commission file No. 1-4982\).](#)
- (10)(ff) [Form of Parker-Hannifin Corporation Restricted Stock Unit Award Agreement, incorporated by reference to Exhibit 10\(b\) to Registrant's Report on Form 10-Q for the quarterly period ended December 31, 2018 \(Commission File No. 1-4982\).](#)
- (10)(gg) [Form of Parker-Hannifin Corporation Restricted Stock Unit Terms and Conditions for Awards Granted, incorporated by reference to Exhibit 10\(c\) to Registrant's Report on Form 10-Q for the quarterly period ended December 31, 2018 \(Commission File No. 1-4982\).](#)
- (10)(hh) [Form of 2018 Parker-Hannifin Corporation Restricted Stock Unit Award Agreement to Certain Executive Officers, incorporated by reference to Exhibit 10\(b\) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2018 \(Commission File No. 1-4982\).](#)
- (10)(ii) [Parker-Hannifin Corporation 2018 Restricted Stock Unit Terms and Conditions for Certain Executive Officers, incorporated by reference to Exhibit 10\(c\) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2018 \(Commission File No. 1-4982\).](#)

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- (10)(jj) [Parker-Hannifin Corporation Profitable Growth Incentive Plan](#), incorporated by reference to Exhibit 10(c) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2014 (Commission File No. 1-4982).
- (10)(kk) [Form of Notice of RONA Bonus Award Under the Parker-Hannifin Corporation Performance Bonus Plan](#), incorporated by reference to Exhibit 10(h) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2009 (Commission File No. 1-4982).
- (10)(ll) [Parker-Hannifin Corporation RONA Plan Subject to Performance Bonus Plan](#), incorporated by reference to Exhibit 10(f) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2010 (Commission File No. 1-4982).
- (10)(mm) [Parker-Hannifin Corporation Summary of RONA Bonus Awards in Lieu of Certain Executive Perquisites](#), incorporated by reference to Exhibit 10(h) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2008 (Commission File No. 1-4982).
- (10)(nn) [Parker-Hannifin Corporation amended and restated Savings Restoration Plan](#), as of September 1, 2004, incorporated by reference to Exhibit 10(t) to Registrant's Report on Form 10-K for the fiscal year ended June 30, 2004 (Commission File No. 1-4982).
- (10)(oo) [Parker-Hannifin Corporation Amended and Restated Savings Restoration Plan](#), effective January 1, 2016, incorporated by reference to Exhibit 10(d) to Registrant's Report on Form 10-Q for the quarterly period ended December 31, 2016 (Commission File No. 1-4982).
- (10)(pp) [Parker-Hannifin Corporation Amended and Restated Pension Restoration Plan](#), effective July 1, 2016, incorporated by reference to Exhibit 10(mm) to Registrant's Report on Form 10-K for the fiscal year ended June 30, 2016 (Commission File No. 1-4982).
- (10)(qq) [Parker-Hannifin Corporation amended and restated Executive Deferral Plan](#), as of September 1, 2004, incorporated by reference to Exhibit 10(v) to Registrant's Report on Form 10-K for the fiscal year ended June 30, 2004 (Commission File No. 1-4982).
- (10)(rr) [Parker-Hannifin Corporation Amended and Restated Executive Deferral Plan](#), effective September 2, 2015, incorporated by reference to Exhibit 10(pp) to Registrant's Report on Form 10-K for the fiscal year ended June 30, 2016 (Commission File No. 1-4982).
- (10)(ss) [Amendment Two to the Parker-Hannifin Corporation Amended and Restated Executive Deferral Plan \(effective September 2, 2015\), dated and effective October 14, 2019](#), incorporated by reference to Exhibit 10.1 to Registrant's Report on Form 10-Q filed with the SEC on February 5, 2020 (Commission File No. 1-4982).
- (10)(tt) [Parker-Hannifin Corporation Global Employee Stock Purchase Plan](#), incorporated by reference to Appendix A to Registrant's Definitive Proxy Statement filed with the SEC on September 22, 2014 (Commission File No. 1-4982).
- (10)(uu) [Parker-Hannifin Corporation Claw-back Policy](#), incorporated by reference to Exhibit 10.2 to Registrant's Report on Form 8-K filed with the SEC on August 18, 2009 (Commission File No. 1-4982).
- (10)(vv) [Amended and Restated Deferred Compensation Plan for Directors of Parker-Hannifin Corporation, effective January 22, 2015](#), incorporated by reference to Exhibit 10(i) to Registrant's Report on Form 10-Q for the quarterly period ended December 31, 2015 (Commission File No. 1-4982).
- (10)(ww) [Summary of the Compensation of the Non-Employee Members of the Board of Directors, effective October 24, 2018, incorporated by reference to Exhibit 10\(a\) to Registrant's Report on Form 10-Q for the quarterly period ended September 30, 2018](#) (Commission File No. 1-4982).
- (10)(xx) [Credit Agreement among Parker-Hannifin Corporation, the lenders party thereto and Key Bank National Association, as Administrative Agent, dated as of May 22, 2019, incorporated by reference to Exhibit 10.1 to Registrant's Report on Form 8-K filed with the SEC on May 24, 2019](#) (Commission File No. 1-4982).
- (10)(yy) [Credit Agreement among Parker-Hannifin Corporation, the lenders party thereto and Key Bank National Association, as Administrative Agent, dated as of September 4, 2019, incorporated by reference to Exhibit 10.1 to Registrant's Report on Form 8-K filed with the SEC on September 6, 2019](#) (Commission File No. 1-4982).
- (10)(zz) [First Amendment Agreement among Parker-Hannifin Corporation, the lenders party thereto and Key Bank National Association, as Administrative Agent, dated September 4, 2019, incorporated by reference to Exhibit 10.2 to Registrant's Report on Form 8-K filed with the SEC on September 6, 2019](#) (Commission File no. 1-4982).
- (21) [List of subsidiaries of Registrant](#).*
- (23) [Consent of Independent Registered Public Accounting Firm](#).*

(24)	Power of Attorney.*
(31)(a)	Certification of the Principal Executive Officer Pursuant to 17 CFR 240.13a-14(a), as Adopted Pursuant to §302 of the Sarbanes-Oxley Act of 2002.*
(31)(b)	Certification of the Principal Financial Officer Pursuant to 17 CFR 240.13a-14(a), as Adopted Pursuant to §302 of the Sarbanes-Oxley Act of 2002.*
(32)	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to §906 of the Sarbanes-Oxley Act of 2002.*
101.INS	The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.*
101.SCH	Inline XBRL Taxonomy Extension Schema Document.*
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.*
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.*
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.*
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.*
104	Cover page Interactive Data File (formatted as Inline XBRL with applicable taxonomy extension information contained in Exhibits 101).

* Submitted electronically herewith.

Attached as Exhibit 101 to this Annual Report are the following formatted in Inline XBRL (Extensible Business Reporting Language): (i) Consolidated Statement of Income for the years ended June 30, 2020, 2019 and 2018, (ii) Consolidated Statement of Comprehensive Income for the years ended June 30, 2020, 2019 and 2018, (iii) Consolidated Balance Sheet at June 30, 2020 and 2019, (iv) Consolidated Statement of Cash Flows for the years ended June 30, 2020, 2019 and 2018, (v) Consolidated Statement of Equity for the years ended June 30, 2020, 2019 and 2018, and (vi) Notes to Consolidated Financial Statements.

Shareholders may request a copy of any of the exhibits to this Annual Report on Form 10-K by writing to the Secretary, Parker-Hannifin Corporation, 6035 Parkland Boulevard, Cleveland, Ohio 44124-4141.

Individual financial statements and related applicable schedules for the Registrant (separately) have been omitted because the Registrant is primarily an operating company and its subsidiaries are considered to be wholly-owned.

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.

PARKER-HANNIFIN CORPORATION

By: /s/ Catherine A. Suever
Catherine A. Suever
Executive Vice President - Finance &
Administration and Chief Financial Officer

August 26, 2020

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

Signature and Title

THOMAS L. WILLIAMS, Chairman of the Board of Directors and Principal Executive Officer; TODD M. LEOMBRUNO, Principal Accounting Officer; LEE C. BANKS, Director; ROBERT G. BOHN, Director; LINDA A. HARTY, Director; KEVIN A. LOBO, Director; CANDY M. OBOURN, Director; JOSEPH SCAMINACE, Director; ÅKE SVENSSON, Director; LAURA K. THOMPSON, Director; JAMES R. VERRIER, Director; and JAMES L. WAINSCOTT, Director.

Date: August 26, 2020

/s/ Catherine A. Suever
Catherine A. Suever, Executive Vice President –
Finance & Administration and Chief Financial
Officer (Principal Financial Officer and
Attorney-in-Fact)

PARKER-HANNIFIN CORPORATION

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS
 FOR THE YEARS ENDED JUNE 30, 2018, 2019 AND 2020
 (Dollars in Thousands)

Column A	Column B	Column C	Column D	Column E
Description	Balance at Beginning of Period	Additions Charged to Costs and Expenses	Other (Deductions)/ Additions (A)	Balance at End of Period
<u>Allowance for doubtful accounts:</u>				
Year ended June 30, 2018	\$ 14,336	\$ 2,861	\$ (7,525)	\$ 9,672
Year ended June 30, 2019	\$ 9,672	\$ 2,034	\$ (2,832)	\$ 8,874
Year ended June 30, 2020	\$ 8,874	\$ 4,860	\$ (2,090)	\$ 11,644
<u>Deferred tax asset valuation allowance:</u>				
Year ended June 30, 2018	\$ 684,079	\$ 10,778	\$ —	\$ 694,857
Year ended June 30, 2019	\$ 694,857	\$ 102,835	\$ —	\$ 797,692
Year ended June 30, 2020	\$ 797,692	\$ (42,217)	\$ 15,955	\$ 771,430

(A) For allowance for doubtful accounts, net balance is comprised of deductions due to divestitures or uncollectible accounts charged off, additions due to acquisitions or recoveries, and currency translation adjustments. For deferred tax asset valuation allowance, the balance primarily represents adjustments due to acquisitions.

**Exhibit 21 to Annual Report
on Form 10-K
for Fiscal Year Ended June 30, 2020
by Parker-Hannifin Corporation**

Listed below are the significant subsidiaries of the Company and their jurisdictions of organization. All other subsidiaries, if considered in the aggregate as a single subsidiary, would not constitute a significant subsidiary. All of the following subsidiaries are either directly or indirectly wholly-owned by the Company.

Name of Subsidiary	State/Country of Organization
UNITED STATES	
Baldwin Filters, Inc.	Delaware
BHA Altair, LLC	Delaware
LORD Corporation	Delaware
LORD Japan, Inc.	Delaware
LORD Technol, Inc.	Delaware
Parker Hannifin ACD Europe LLC	Delaware
Parker Hannifin CFA, LLC	Delaware
Parker Hannifin Filtration (Houston), LLC	Delaware
Parker Hannifin Filtration (US), Inc.	Delaware
Parker Intangibles LLC	Delaware
Parker Italy Holding LLC	Delaware
Parker Olaer Holdings LLC	Delaware
Parker-Seahawk Acquisitions, LLC	Delaware
Purolator Facet, Inc.	Delaware
Altair Filter Technology Inc.	Kentucky
Parker Royalty Partnership	Ohio
Parker-Hannifin International Corp.	Ohio
PG Square LLC	Ohio
Total Filtration Services, Inc.	Ohio
Parker-Hannifin Luxembourg Finance Limited Company - US Branch	Texas
Exotic Metals Forming Company LLC	Washington
INTERNATIONAL	
Parker Hannifin (Australia) Pty. Limited	Australia
Parker Hannifin Australia Assets Pty Limited	Australia
Parker Hannifin Australia Holding Pty Limited	Australia
Parker Hannifin (Barbados) SRL	Barbados
Parker Hannifin Belux Branch	Belgium
Parker Hannifin (Bermuda) Ltd.	Bermuda
Parker Hannifin Partner I GP	Bermuda
Parker Hannifin Partner II GP	Bermuda
Parker Hannifin Indústria e Comércio Ltda.	Brazil
Parker Canada Holding Co.	Canada
Parker Hannifin Canada	Canada
Parker Ontario Holding Inc.	Canada
LORD Chemical (Shanghai) Co., Ltd.	China
LORD International Trading (Shanghai) Co., Ltd.	China

Name of Subsidiary	State/Country of Organization
Parker Hannifin Hydraulics (Shanghai) Co., Ltd.	China
Parker Hannifin Motion & Control (Shanghai) Co. Ltd.	China
Parker Hannifin Motion & Control (Wuxi) Company Ltd)	China
Rayco (Wuxi) Technologies Co., Ltd.	China
Weifang Parker Hannifin Filtration Products and Systems Co., Ltd.	China
Parker Hannifin Industrial s.r.o.	Czech Republic
Parker Hannifin Manufacturing Holding Czech Republic s.r.o.	Czech Republic
Parker Hannifin Manufacturing Holding Denmark ApS	Denmark
LORD Solutions France	France
Parker Hannifin France Holding SAS	France
Parker Hannifin France SAS	France
Parker Hannifin Manufacturing France SAS	France
LORD Germany GmbH	Germany
Parker Hannifin GmbH	Germany
Parker Hannifin Holding GmbH	Germany
Parker Hannifin Manufacturing Germany GmbH & Co. KG	German
Parker Hannifin (Gibraltar) Acquisitions Limited	Gibraltar
Parker Hannifin (Gibraltar) Holding Limited	Gibraltar
Parker Hannifin (Gibraltar) Properties Limited	Gibraltar
Parker Hannifin Hong Kong, Ltd.	Hong Kong
Parker International Capital Management Hungary Limited Liability Company	Hungary
LORD India Private Limited	India
Parker Hannifin India Private Ltd.	India
Parker Hannifin Manufacturing (Ireland) Limited	Ireland
LORD Italia S.r.l.	Italy
Parker Hannifin Italy S.R.L.	Italy
Parker Hannifin Manufacturing Holding Italy srl	Italy
Parker Hannifin Manufacturing srl	Italy
Parker Hannifin Japan Holdings GK	Japan
Parker Hannifin Japan Ltd.	Japan
Taiyo, Ltd.	Japan
Parker Hannifin Connectors Ltd.	Korea
Parker Korea Ltd.	Korea
Parker Hannifin Bermuda Luxembourg S.C.S.	Luxembourg
Parker Hannifin Global Capital Management S.a.r.l	Luxembourg
Parker Hannifin Holding EMEA S.a.r.l.	Luxembourg
Parker Hannifin Lux FinCo S.a.r.l.	Luxembourg
Parker Hannifin Luxembourg Acquisitions S.a.r.l.	Luxembourg
Parker Hannifin Luxembourg Finance S.à r.l.	Luxembourg
Parker Hannifin Luxembourg Investments 1 S.a.r.l.	Luxembourg
Parker Hannifin Partnership S.C.S.	Luxembourg
Parker Hannifin Filtration Systems Sdn.Bhd.	Malaysia
Parker Hannifin Industrial (M) Sdn Bhd	Malaysia
Parker Hannifin de Mexico, S.A. de C.V.	Mexico
Parker Hannifin Holding, S. de R.L. de C.V.	Mexico

Name of Subsidiary	State/Country of Organization
Parker Industrial, S. de R.L. de C.V.	Mexico
LORD Europe B.V.	Netherlands
Lord Holdings (Asia) B.V.	Netherlands
Parker Hannifin (Clarcor Filtration) Holding B.V.	Netherlands
Parker Hannifin B.V.	Netherlands
Parker Hannifin Netherlands Holdings 2 B.V.	Netherlands
Parker Hannifin Netherlands Holdings B.V.	Netherlands
Parker Hannifin (Norway) Holdings AS	Norway
Parker Hannifin LLC.	Russian Federation
Parker Hannifin Singapore Private Limited	Singapore
Parker Hannifin Aktiebolag	Sweden
Parker Hannifin Manufacturing Sweden AB	Sweden
Parker Hannifin Sweden Holding Co AB	Sweden
LORD Suisse Sarl	Switzerland
Parker Hannifin EMEA S.a. r.l.	Switzerland
Parker Hannifin La Tuilière Sarl	Switzerland
LORD (Thailand) Ltd.	Thailand
Parker Hannifin Lux Finco S.à.r.l. FZ LLC - UAE Branch	United Arab Emirates
Alenco (Holdings) Limited	United Kingdom
Altair (UK) Limited	United Kingdom
Domnick Hunter Fabrication Limited	United Kingdom
Domnick Hunter Group Limited	United Kingdom
Olaer Group Limited	United Kingdom
Parker Hannifin (GB) Limited	United Kingdom
Parker Hannifin (Holdings) Limited	United Kingdom
Parker Hannifin 2007 LLP	United Kingdom
Parker Hannifin Industries Limited	United Kingdom
Parker Hannifin Limited	United Kingdom
Parker Hannifin Manufacturing (UK) Limited	United Kingdom
Parker Hannifin Manufacturing Limited	United Kingdom
SSD Drives Limited	United Kingdom

**Exhibit 23 to Annual Report
On Form 10-K
for Fiscal Year Ended June 30, 2020
By Parker-Hannifin Corporation**

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-236292 on Form S-3; and Registration Statement Nos. 333-236293, 333-117761, 333-126957, 333-186733, 333-186734, 333-192909, 333-201071 and 333-215107 on Form S-8 of our report dated August 26, 2020, relating to the financial statements and the financial statement schedule of Parker-Hannifin Corporation and subsidiaries (the "Company"), and the effectiveness of the Company's internal control over financial reporting, appearing in this Annual Report on Form 10-K of the Company for the year ended June 30, 2020.

/s/ DELOITTE & TOUCHE LLP
Cleveland, Ohio
August 26, 2020

Re: Parker-Hannifin Corporation

Commission File No. 1-4982
Annual Report on Form 10-K
Authorized Representatives

Gentlemen:

Parker-Hannifin Corporation (the "Company") is the issuer of Securities registered under Section 12(b) of the Securities Exchange Act of 1934 (the "Act"). Each of the persons signing his or her name below confirms, as of the date appearing opposite his or her signature, that each of the following "Authorized Representatives" is authorized on his or her behalf to sign and to submit to the Securities and Exchange Commission Annual Reports on Form 10-K and amendments thereto as required by the Act:

Authorized Representatives

Thomas L. Williams
Catherine A. Suever
Joseph R. Leonti

Each person so signing also confirms the authority of each of the Authorized Representatives named above to do and perform, on his or her behalf, any and all acts and things requisite or necessary to assure compliance by the signing person with the Form 10-K filing requirements. The authority confirmed herein shall remain in effect as to each person signing his or her name below until such time as the Commission shall receive from such person a written communication terminating or modifying the authority.

	<u>Date</u>		<u>Date</u>
<u>/s/ Thomas L. Williams</u> Thomas L. Williams, Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	<u>8/13/2020</u>	<u>/s/ Candy M. Obourn</u> Candy M. Obourn, Director	<u>8/13/2020</u>
<u>/s/ Catherine A. Suever</u> Catherine A. Suever, Executive Vice President – Finance & Administration and Chief Financial Officer (Principal Financial Officer)	<u>8/13/2020</u>	<u>/s/ Joseph Scaminace</u> Joseph Scaminace, Director	<u>8/13/2020</u>
<u>/s/ Todd M. Leombruno</u> Todd M. Leombruno, Vice President and Controller (Principal Accounting Officer)	<u>8/13/2020</u>	<u>/s/ Åke Svensson</u> Åke Svensson, Director	<u>8/13/2020</u>
<u>/s/ Lee C. Banks</u> Lee C. Banks, Director	<u>8/13/2020</u>	<u>/s/ Laura K. Thompson</u> Laura K. Thompson, Director	<u>8/13/2020</u>
<u>/s/ Robert G. Bohn</u> Robert G. Bohn, Director	<u>8/13/2020</u>	<u>/s/ James R. Verrier</u> James R. Verrier, Director	<u>8/13/2020</u>
<u>/s/ Linda A. Harty</u> Linda A. Harty, Director	<u>8/13/2020</u>	<u>/s/ James L. Wainscott</u> James L. Wainscott, Director	<u>8/13/2020</u>
<u>/s/ Kevin A. Lobo</u> Kevin A. Lobo, Director	<u>8/13/2020</u>		

CERTIFICATIONS

I, Thomas L. Williams, certify that:

1. I have reviewed this annual report on Form 10-K of Parker-Hannifin 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: August 26, 2020

/s/ Thomas L. Williams

Thomas L. Williams

Chief Executive Officer

CERTIFICATIONS

I, Catherine A. Suever, certify that:

1. I have reviewed this annual report on Form 10-K of Parker-Hannifin 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: August 26, 2020

/s/ Catherine A. Suever

Catherine A. Suever

Executive Vice President – Finance &

Administration and Chief Financial Officer

Certification Pursuant to
18 U.S.C. Section 1350,
As Adopted Pursuant to
§ 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, in connection with the filing of the Annual Report on Form 10-K of Parker-Hannifin Corporation (the "Company") for the fiscal year ended June 30, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company certifies, that, to such officer's knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

Dated: August 26, 2020

/s/ Thomas L. Williams

Name: Thomas L. Williams

Title: Chief Executive Officer

/s/ Catherine A. Suever

Name: Catherine A. Suever

Title: Executive Vice President-Finance &
Administration and Chief Financial Officer