

PARKER HANNIFIN CORP

Form 10-K

August 24, 2018

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, 2018

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 34-0451060

(State or other jurisdiction of (I.R.S. Employer

Incorporation or Organization) Identification No.)

6035 Parkland Boulevard, Cleveland, Ohio 44124-4141

(Address of Principal Executive Offices) (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	Name of Each Exchange on which Registered
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Common Shares, \$.50 par value 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 and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large Accelerated Filer:  Accelerated Filer:

Non-Accelerated Filer:  Smaller Reporting Company:

(Do not check if a smaller reporting company)

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Emerging Growth Company

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

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

The aggregate market value of the outstanding common stock held by non-affiliates of the Registrant as of December 31, 2017: \$26,411,763,329.

The number of Common Shares outstanding on July 31, 2018 was 132,360,024.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Definitive Proxy Statement for the Company's 2018 Annual Meeting of Shareholders to be held on October 24, 2018, 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, 2018

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. Its 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 term "Company" refers to Parker-Hannifin Corporation and its subsidiaries and the term "year" and references to specific years refer to the applicable fiscal year.

The Company's investor relations internet website address is [www.phstock.com](http://www.phstock.com). The Company makes available free of charge on or through its website its 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 such material electronically with the Securities and Exchange Commission. The information contained on or accessible through the Company's website is not part of this Annual Report on Form 10-K.

The Board of Directors has adopted a written charter for each of the committees of the Board of Directors. These charters, as well as the Company's Global Code of Business Conduct, Corporate Governance Guidelines and Independence Standards for Directors, are posted and available on the Company's investor relations internet website at [www.phstock.com](http://www.phstock.com) 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.

The Company's manufacturing, service, sales, distribution and administrative facilities are located in 39 states within the United States and in 49 other countries. The Company's products are sold as original and replacement equipment through sales and distribution centers worldwide. The Company markets its products through direct-sales employees, independent distributors and sales representatives. The Company's products are supplied to approximately 455,000 customers in virtually every significant manufacturing, transportation and processing industry.

The Company has two reporting segments: Diversified Industrial and Aerospace Systems. During 2018, the Company's technologies and systems were used in the products of these two reporting segments. For 2018, the Company's net sales were \$14.3 billion. Diversified Industrial Segment products accounted for 84% and Aerospace Systems Segment products accounted for 16% of those net sales.

Markets

The Company's technologies and systems are used throughout various industries and in various applications. The approximately 455,000 customers who purchase the Company's products are found throughout nearly every significant manufacturing, transportation and processing industry. No single customer accounted for more than 3% of the Company's total net sales for the year ended June 30, 2018.

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Diversified Industrial Segment. Sales of Diversified Industrial Segment products are made 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 for products of the Diversified Industrial Segment are listed below by group:

- |                             |  |   |
|-----------------------------|--|---|
| Engineered Materials Group: | <ul style="list-style-type: none"> <li>• Aerospace</li> <li>• Chemical processing</li> <li>• Consumer</li> <li>• Fluid power</li> <li>• General industrial</li> <li>• Information technology</li> <li>• Life sciences</li> </ul>   | <ul style="list-style-type: none"> <li>• Microelectronics</li> <li>• Military</li> <li>• Oil &amp; gas</li> <li>• Power generation</li> <li>• Renewable energy</li> <li>• Telecommunications</li> <li>• Transportation</li> </ul> |
| Filtration Group:           | <ul style="list-style-type: none"> <li>• Agriculture</li> <li>• Aerospace &amp; defense</li> <li>• Construction</li> <li>• Food &amp; beverage</li> <li>• Heating, ventilation &amp; air conditioning (HVAC)</li> <li>• Industrial machinery</li> <li>• Life sciences</li> </ul> | <ul style="list-style-type: none"> <li>• Marine</li> <li>• Mining</li> <li>• Oil &amp; gas</li> <li>• Power generation</li> <li>• Renewable energy</li> <li>• Transportation</li> <li>• Water purification</li> </ul>             |
| Fluid Connectors Group:     | <ul style="list-style-type: none"> <li>• Aerial lift</li> <li>• Agriculture</li> <li>• Bulk chemical handling</li> <li>• Construction</li> <li>• Food &amp; beverage</li> <li>• Fuel &amp; gas delivery</li> <li>• Industrial machinery</li> </ul>                               | <ul style="list-style-type: none"> <li>• Life sciences</li> <li>• Marine</li> <li>• Mining</li> <li>• Mobile</li> <li>• Oil &amp; gas</li> <li>• Renewable energy</li> <li>• Transportation</li> </ul>                            |

Instrumentation  
Group:

- Air conditioning
- Alternative fuels
- Analytical
- Chemical
- Diesel engine
- Food & beverage
- Industrial machinery
- Life sciences
- Microelectronics
- Oil & gas
- Packaging
- Refining
- Refrigeration
- Transportation

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Motion Systems Group:	Mobile:	Industrial:
	• Agriculture	• Distribution
	• Construction	• General machinery
	• Marine	• Machine tool
	• Material handling	• Mining
	• Military	• Oil & gas
	• Transportation	• Power generation
	• Truck & bus	• Semiconductor
	• Turf	

Aerospace Systems Segment. Sales of the Aerospace Systems Segment products are made 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 transports
- Engines
- General & business aviation
- Helicopters
- Military aircraft
- Missiles
- Power generation
- Regional transports
- Unmanned aerial vehicles

**Principal Products and Methods of Distribution**

Although the Company offers hundreds of thousands of individual products, no single product contributed more than 1% to the Company's total net sales for the year ended June 30, 2018. Listed below are some of the Company's principal products.

Diversified Industrial Segment. The products produced by the Company's Diversified Industrial Segment consist of a broad range of motion-control and fluid systems and components, which are described below by group:

Engineered Materials Group: static and dynamic sealing devices, including:

- Dynamic seals
- Elastomeric o-rings
- Electro-medical instrument design & assembly
- Electromagnetic interference shielding
- Extruded & precision-cut fabricated elastomeric seals
- High-temperature metal seals
- Homogeneous & inserted elastomeric shapes
- Medical device fabrication & assembly
- Metal & plastic retained composite seals
- Shielded optical windows
- Silicone tubing & extrusions
- Thermal management
- Vibration dampening

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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 (HVAC) 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 equipment
- Hose couplings
- 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 critical flow components for process instrumentation, healthcare and ultra-high-purity applications and components for use in refrigeration and air conditioning systems and in fluid control applications for processing, fuel dispensing, beverage dispensing and mobile emissions, 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



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

- |  |   |
|--|---|
| <p>Hydraulic Actuation:</p> <ul style="list-style-type: none"> <li>• Cylinders</li> <li>• Rotary actuators</li> <li>• Helical actuators</li> <li>• Accumulators</li> <li>• Electrohydraulic actuators</li> <li>• Coolers</li> </ul> <p>Hydraulic Pumps &amp; Motors:</p> <ul style="list-style-type: none"> <li>• Piston pumps &amp; motors</li> <li>• Vane pumps &amp; motors</li> <li>• Gerotor pumps &amp; motors</li> <li>• Power take-off</li> <li>• Fan drives</li> <li>• Electrohydraulic pump</li> <li>• Drive controlled pump</li> <li>• Screw pump</li> <li>• Integrated hydrostatic transmissions</li> </ul> <p>Hydraulic &amp; Electro Hydraulic Systems</p> | <p>Hydraulic Valves:</p> <ul style="list-style-type: none"> <li>• Cartridge valves</li> <li>• Industrial valves</li> <li>• Mobile valves</li> </ul> <p>Pneumatics:</p> <ul style="list-style-type: none"> <li>• Pneumatic valves</li> <li>• Air preparation (FRL) &amp; dryers</li> <li>• Pneumatic cylinders</li> <li>• Grippers</li> <li>• IO link controllers</li> </ul> <p>Electronics:</p> <ul style="list-style-type: none"> <li>• Electric actuators &amp; positioners</li> <li>• Electronic displays &amp; human machine interfaces (HMI)</li> <li>• Controllers &amp; HMI</li> <li>• Sensors</li> <li>• IoT</li> <li>• Electric motors &amp; gearheads</li> <li>• Drives (AC/DC Servo)</li> <li>• Joysticks</li> <li>• Clusters</li> <li>• Software</li> </ul> |
|--|---|

Diversified Industrial Segment products include standard products, as well as custom products which are engineered and produced to OEMs’ specifications for application to particular end products. Both standard and custom products are also used in the replacement of original products. Diversified Industrial Segment products are marketed primarily through field sales employees and approximately 16,900 independent distributor locations throughout the world.

Aerospace Systems Segment. The principal products of the Company’s Aerospace Systems Segment are used on commercial and military airframe and engine programs and include:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Control actuation systems &amp; components</li> <li>• Engine systems &amp; components</li> <li>• Fluid conveyance systems &amp; components</li> <li>• Fluid metering, delivery &amp; atomization devices</li> <li>• Fuel systems &amp; components</li> <li>• Fuel tank inerting systems</li> </ul> | <ul style="list-style-type: none"> <li>• Hydraulic systems &amp; components</li> <li>• Lubrication components</li> <li>• Pneumatic control components</li> <li>• Power conditioning &amp; management systems</li> <li>• Thermal management</li> <li>• Wheels &amp; brakes</li> </ul> |
|---|--|

Aerospace Systems Segment products are marketed by the Company’s regional sales organizations and are sold directly to original equipment manufacturers and end users throughout the world.

Competition

The Company’s business operates in highly competitive markets and industries. The Company offers its products over numerous, varied markets through its divisions operating in 50 countries and consequently has hundreds of competitors when viewed across its various markets and product offerings. The Company’s competitors include U.S. and non-U.S. companies.

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These competitors and the degree of competition vary widely by product lines, end markets, geographic scope and/or geographic locations. Although each of the Company's segments has numerous competitors, given the Company's market and product breadth, no single competitor competes with the Company with respect to all products manufactured and sold by the Company.

In the Diversified Industrial Segment, the Company competes on the basis of product quality and innovation, customer service, manufacturing and distribution capability, and price competitiveness. The Company believes that it is one of the market leaders in most of the major markets for its most significant Diversified Industrial Segment products. The Company has comprehensive motion and control packages for the broadest systems capabilities. While the Company's 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 in the Company's Diversified Industrial Segment and every product line offered by this segment.

In the Aerospace Systems Segment, the Company has developed alliances with key customers based on the Company's advanced technological and engineering capabilities, superior performance in quality, delivery, and service, and price competitiveness, which has enabled the Company to obtain significant original equipment business on new aircraft programs for its systems and components and to thereby obtain the follow-on repair and replacement business for these programs. Further, the Aerospace Systems Segment is able to utilize low-cost manufacturing techniques and best cost region strategies to achieve a lower cost producer status. Although the Company believes that it is one of the market leaders in most of the major markets for its most significant Aerospace Systems Segment products, the Company's primary global competitors for the most significant Aerospace Systems Segment products include Eaton Corporation plc, Honeywell International, Inc., Moog Inc., Triumph Group, Inc., UTC Aerospace Systems, Woodward, Inc. and Zodiac Aerospace SA.

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

- decentralized operating structure that allows each division to focus on its customers and respond quickly at the local level;

- systems solution capabilities that use the Company's core technologies from both of its segments;

- global presence; and

- a strong global distribution network.

### Research and Product Development

The Company continually researches the feasibility of new products and services through its development laboratories and testing facilities in many of its worldwide manufacturing locations. Its research and product development staff includes chemists, physicists, and mechanical, chemical and electrical engineers.

Total research and development costs relating to the development of new products and services and the improvement of existing products and services amounted to \$327.9 million in 2018, \$336.7 million in 2017 and \$359.8 million in 2016. These amounts include 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 and included in the total research and development costs reported above for 2018, 2017 and 2016 were \$40.8 million, \$65.3 million and \$58.0 million, respectively.

### Patents, Trademarks, Licenses

The Company owns a number of patents, trademarks and licenses related to its products and has exclusive and non-exclusive rights to use patents and trademarks 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. The Company is not dependent to any material extent on any single patent, trademark or license or group of patents, trademarks or licenses.

### 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

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value of backlog is equal to the amount that is expected to be billed to the customer and reported as a sale. The Company's 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. The Company's backlog was \$4.1 billion at June 30, 2018 and \$3.8 billion at June 30, 2017. Approximately 89% of the Company's backlog at June 30, 2018 is scheduled for delivery in the succeeding twelve months. The Company's business is generally not seasonal in nature.

### Environmental Regulation

Certain of the Company's operations necessitate 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, the Company is subject to the United States federal "Superfund" law, under which the Company has 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, 2018, the Company was involved in environmental remediation at various United States and non-U.S. manufacturing facilities presently or formerly operated by the Company and as a "potentially responsible party," along with other companies, at off-site waste disposal facilities and regional sites.

The Company believes that its 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, the Company believes, will not have in the future, a material adverse effect on the capital expenditures, earnings, or competitive position of the Company.

As of June 30, 2018, the Company had a reserve of \$18.0 million for environmental matters that were probable and reasonably estimable. This reserve was 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 the Company's liability in proportion to other responsible parties. The Company's estimated total liability for the above mentioned sites ranges from a minimum of \$18.0 million to a maximum of \$81.0 million. The largest range of the estimated total liability for any one site is approximately \$9.5 million. The actual costs to be incurred by the Company will be 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 the other responsible parties to pay, and any insurance or other third-party recoveries.

### Energy Matters and Sources and Availability of Raw Materials

The Company's primary energy source for both of its business segments is electric power. While the Company 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 substantial, proven coal and natural gas reserves available to electric utilities. The Company is subject to governmental regulations in regard to energy supplies in the United States and elsewhere. To date, the Company has not experienced any significant disruptions of its operations due to energy curtailments. Steel, brass, copper, aluminum, nickel, rubber and thermoplastic materials and chemicals are the principal raw materials used by the Company. These materials are expected to be available from numerous sources in quantities sufficient to meet the requirements of the Company.

### Employees

The Company employed approximately 57,170 persons as of June 30, 2018, of whom approximately 29,410 were employed by foreign subsidiaries.

### Business Segment Information

The Company's net sales, segment operating income and assets by business segment and net sales and long-lived assets by geographic area for the past three years are included in Part II, Item 8 of this Annual Report on Form 10-K

and are incorporated herein by reference.

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Acquisitions

The Company made no acquisitions during 2018. Prior-year acquisitions are discussed in Note 2 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 the Company believes to be the risks that could materially adversely affect the Company's 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 Company may be subject to risks arising from uncertainty in worldwide and regional economic conditions. The Company's business is sensitive to global macro-economic conditions. Moderate economic growth persists in the economic regions in which the Company conducts substantial operations. Future macroeconomic downturns may have an adverse effect on the business, results of operations and financial condition of the Company and its distributors, customers and suppliers, and on activity in many of the industries and markets in which the Company and its distributors, customers and suppliers operate. Among the economic factors which may have such an effect are manufacturing and other end-market activity, currency exchange rates, air travel trends, difficulties entering new markets, tariffs and governmental trade policies, and general economic conditions such as inflation, deflation, interest rates and credit availability. These factors may, among other things, negatively impact the level of purchases, capital expenditures, and creditworthiness of the Company and its distributors, customers and suppliers, and, therefore, the Company's revenues, operating profits, margins, and order rates.

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

The Company may be subject to risks relating to its non-U.S. operations.

The Company's net sales derived from customers outside the United States were approximately 41% in 2018, 40% in 2017 and 41% in 2016. In addition, many of the Company's 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. The Company's non-U.S. operations are subject to risks in addition to those facing its domestic operations, including:

- fluctuations in currency exchange rates;
- 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 the Company's ability to enforce legal rights and remedies;
- potentially adverse tax consequences; and
- difficulties in implementing restructuring actions on a timely basis.

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If the Company is unable to successfully manage the risks associated with expanding its global business or adequately manage operational fluctuations internationally, the risks could have a material adverse effect on the Company's business, results of operations or financial condition.

The Company may be 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").

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

In addition, the Company may not be able to integrate successfully any businesses that it purchases into its existing business or that any acquired businesses or joint ventures will be profitable. Specifically, the Company is devoting significant management attention and resources to integrating the business practices and operations of Clarcor with the businesses of the Company. The Company may encounter or has encountered the following difficulties during the integration process of Clarcor:

- 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 Clarcor acquisition 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 Clarcor, into the Company's, 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 the Company's ability to manage these new businesses and cut excess costs. If the Company is unable to avoid these risks, its results of operations and financial condition could be materially adversely affected.

The Company's results may be adversely affected if expanded operations from the acquisition of Clarcor are not effectively managed.

The Company's acquisition of Clarcor greatly expanded the size and complexity of its business. The Company's 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 the Company will realize the expected benefits of the acquisition of Clarcor.

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

The Company regularly executes organizational changes such as acquisitions, divestitures and realignments to support its growth and cost management strategies. The Company also engages in initiatives aimed to increase productivity, efficiencies and cash flow and to reduce costs. The Company further commits significant resources to identify, develop and retain key employees to ensure uninterrupted leadership and direction. If the Company is 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 the Company's results of operations and financial condition could be materially adversely affected. The Company also cannot offer assurances that any of these initiatives will continue to 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.

The Company may be subject to risks relating to its information technology systems.

The Company relies extensively on information technology systems to manage and operate its 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,



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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 the Company suffers any resulting interruption in its ability to manage and operate its business or if its products are effected, the Company's results of operations and financial condition could be materially adversely affected. In addition to existing risks, any adoption or deployment of new technologies may increase our exposure to risks, breaches, or failures, which could materially adversely affect the Company's 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 the Company's 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 or competitiveness, or other negative impacts to the Company's results of operations or financial condition.

The Company may be subject to risks relating to changes in the demand for and supply of its products.

Demand for and supply of the Company's products may be adversely affected by numerous factors, some of which the Company 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;

changes in product mix;

changes in the market acceptance of the Company's products;

increased competition in the markets the Company serves;

declines in the general level of industrial production;

weakness in the end-markets the Company serves;

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 the Company's products could suffer, which could materially adversely affect the Company's results of operations.

The Company may be subject to risks relating to the development of new products and technologies.

The markets in which the Company operates are characterized by rapidly changing technologies and frequent introductions of new products and services. The Company's ability to develop new products based on technological innovation can affect its competitive position and often requires the investment of significant resources. If the Company does not develop, or has difficulties or delays in the development of, innovative new and enhanced products and services, or fails to gain market or regulatory acceptance of new products and technologies, the Company's revenues may be materially reduced and the Company's competitive position could be materially adversely affected. In addition, the Company 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.

The Company may be subject to risks arising from price and supply fluctuations in raw materials used in the Company's production processes and by its suppliers of component parts.

The Company's supply of raw materials for its businesses could be interrupted for a variety of reasons, including availability and pricing. Furthermore, recently implemented changes to U.S. and other countries' tariff and import/export regulations may 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 the Company's results of operations and profit margins. Efforts by the Company to manage these fluctuations by, among other things, passing along price increases to its customers, may be subject to a time delay between the increased raw material prices and the Company's ability to increase the price of its products, or the Company may be unable to increase the prices of its products due to pricing pressure, contract terms or other factors. Any such inability to manage fluctuations could adversely impact results of operations and cash flows.



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The Company's 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, the Company may not be able to increase its prices commensurately with its increased costs. Consequently, the Company's results of operations or financial condition could be materially adversely affected.

The Company may be subject to risks arising from changes in the competitive environment in which it operates. The Company's operations are subject to competition from a wide variety of global, regional and local competitors, which could adversely affect the Company's results of operations by creating downward pricing pressure and/or a decline in the Company's margins or market shares. To compete successfully, the Company must excel in terms of product quality and innovation, technological and engineering capability, manufacturing and distribution capability, delivery, price competitiveness, and customer experience.

The Company may be subject to risks relating to changes in its tax rates or exposure to additional income tax liabilities.

The Company is subject to income taxes in the United States and various non-U.S. jurisdictions. The Company's domestic and international tax liabilities are dependent upon the location of earnings among these different jurisdictions. On December 22, 2017, the Tax Cuts and Jobs Act, or the TCJ Act, was enacted into law. The TCJ Act significantly reforms the Internal Revenue Code of 1986, as amended, by, among other things, establishing a flat corporate U.S. income tax rate of 21 percent and creating a territorial tax system (with a one-time transition tax imposed on previously unremitted foreign earnings and profits). The Company's future results of operation could be adversely affected by changes in the Company's effective tax rate as a result of changes in tax laws and regulations or the interpretation thereof (including regulations under and interpretations of the TCJ Act), 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. For example, the Company's estimate of the net one-time charge incurred related to the TCJ Act could differ materially from the Company's actual liability, due to, among other things, further refinement of the calculations, changes in interpretations and assumptions the Company has made, additional guidance that may be issued by the U.S. Treasury Department and Internal Revenue Service, and any other actions the Company may make as a result of the TCJ Act. 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.

The Company may be subject to product liability risks.

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

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

The Company is 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 its business and its employees. Despite the

Company's policies, procedures and compliance programs, its internal controls and compliance systems may not be able to protect the Company from prohibited acts willfully committed by its employees, agents or business partners that would violate such applicable laws and regulations. Any such improper acts could damage the Company's reputation, subject it to civil or criminal judgments, fines or penalties, and could otherwise disrupt the Company's business, and as a result, could materially adversely impact the Company's business, financial condition or results of operations.

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The Company may be subject to risks relating to the preservation of its intellectual property.

Protecting the Company's intellectual property is critical to its innovation efforts. The Company owns a number of patents, trade secrets, copyrights, trademarks, trade names and other forms of intellectual property in its products and services throughout the world and in the operation of its business. The Company also has exclusive and non-exclusive rights to intellectual property owned by others. The Company's intellectual property may be challenged or infringed upon by third parties or the Company 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 the Company's business increases the risk that the Company's intellectual property may be subject to infringement or other unauthorized use or disclosure by others. In some cases, the Company's ability to protect its 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 the Company's intellectual property rights or the Company's inability to preserve existing intellectual property rights could adversely impact the Company's competitive position and results of operations.

The Company may be subject to risks arising from the impact of environmental regulations.

The Company's operations necessitate the use and handling of hazardous materials and, as a result, it is subject 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, the Company is subject to the U.S. federal "Superfund" law, under which it has 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. The Company 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 the Company to additional costs and restrictions, including increased energy and raw material costs. Until definitive regulations are adopted, the Company is not able to predict how such regulations would affect the Company's business, operations or financial results.

The Company 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 the Company's business, results of operations and financial condition.

The Company may be subject to risks relating to increasing costs of certain employee and retiree benefits.

The funding requirements and the amount of expenses recorded for the Company's defined benefit pension plans are dependent on changes in market interest rates and the value of plan assets, which are dependent on actual 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 the Company's results of operations.

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

The Company may be subject to risks arising from regulations applicable to companies doing business with the United States government.

In addition to the risks identified herein, doing business with the United States government subjects the Company 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 the Company's failure to perform under the applicable contract. The Company is subject to government investigations of 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 the Company 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 the Company's results of operations.

ITEM 1B. Unresolved Staff Comments. None.

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## ITEM 1C. Executive Officers of the Registrant.

The Company's executive officers as of August 15, 2018, were as follows:

Name	Position	Officer Since(1)	Age as of 8/15/2018
Thomas L. Williams	Chairman of the Board, Chief Executive Officer and Director	2005	59
Lee C. Banks	President, Chief Operating Officer and Director	2001	55
Catherine A. Suever	Executive Vice President – Finance & Administration and Chief Financial Officer	2010	59
Mark J. Hart	Executive Vice President – Human Resources & External Affairs	2016	53
William R. "Skip" Bowman	Vice President and President - Instrumentation Group	2016	60
William G. Eline	Vice President – Chief Information Officer	2002	62
Thomas C. Gentile	Vice President – Global Supply Chain	2017	46
Kurt A. Keller	Vice President and President – Asia Pacific Group	2009	60
Todd M. Leombruno	Vice President and Controller	2017	48
Joseph R. Leonti	Vice President, General Counsel and Secretary	2014	46
Robert W. Malone	Vice President and President – Filtration Group	2014	54
M. Craig Maxwell	Vice President – Chief Technology and Innovation Officer	2003	60
Jennifer A. Parmentier	Vice President and President – Engineered Materials Group	2015	51
Andrew D. Ross	Vice President and President – Fluid Connectors Group	2012	51
Roger S. Sherrard	Vice President and President – Aerospace Group	2003	52
Andrew M. Weeks	Vice President and President – Motion Systems Group	2015	55

(1) Executive officers of the Company 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. Eline, Keller, Maxwell, and Sherrard have served in the executive capacities indicated above opposite their respective names 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 Chart Industries, Inc.

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.

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; and Vice President, Supply Chain - Filtration Group from July 2008 to December 2013.

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.





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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. 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.

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

ITEM 2. Properties. The Company's corporate headquarters is located in Cleveland, Ohio, and, at June 30, 2018, the Company had 310 manufacturing plants, 119 distribution centers and 157 sales and administrative offices throughout the world, none of which were individually material to its operations. The facilities are situated in 39 states within the United States and in 49 other countries. The Company owns the majority of its manufacturing plants, and its leased properties primarily consist of sales and administrative offices and distribution centers. The number of facilities used by each of the Company's operating segments is summarized by type and geographic location in the tables below:

	Type of Facility		
	Manufacturing Plants	Distribution Centers	Sales and Administrative Offices
Diversified Industrial	291	115	144
Aerospace Systems	19	4	13
Total	310	119	157

	Geographic Location			
	North America	Europe	Asia-Pacific	Latin America
Diversified Industrial	271	154	113	12
Aerospace Systems	30	4	2	—
Total	301	158	115	12

Several facilities are shared between the Company's operating segments. To avoid double counting, each shared facility is counted once, primarily in the Diversified Industrial Segment.

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

ITEM 3. Legal Proceedings. None.

ITEM 4. Mine Safety Disclosures. Not applicable.



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## PART II

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

Market for the Registrant's Common Equity. The Company's common stock is listed for trading on the New York (a) Stock Exchange (NYSE) under the symbol "PH". Information regarding stock price as reported on the NYSE and dividend information with respect to the Company's common stock, is included in the table below.

(In dollars)		1st	2nd	3rd	4th	Fiscal Year
2018	High	\$177.61	\$200.82	\$212.80	\$183.91	\$212.80
	Low	153.65	170.66	167.50	152.47	152.47
	Dividends	0.66	0.66	0.66	0.76	2.74
2017	High	\$126.59	\$145.44	\$161.23	\$166.60	\$166.60
	Low	105.00	118.77	139.92	151.17	105.00
	Dividends	0.63	0.63	0.66	0.66	2.58
2016	High	\$117.98	\$108.00	\$113.51	\$117.78	\$117.98
	Low	94.64	93.47	83.32	99.10	83.32
	Dividends	0.63	0.63	0.63	0.63	2.52

As of July 31, 2018, the number of shareholders of record of the Company was 3,478.

(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, 2018 through April 30, 2018	96,100	\$ 170.96	96,100	16,404,510
May 1, 2018 through May 31, 2018	704,770	\$ 166.21	704,770	15,699,740
June 1, 2018 through June 30, 2018	97,647	\$ 168.11	97,647	15,602,093
Total	898,517	\$ 166.92	898,517	15,602,093

(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.

## ITEM 6. Selected Financial Data.

(Amounts in thousands, except per share information)	2018	2017	2016	2015	2014
Net sales	\$14,302,392	\$12,029,312	\$11,360,753	\$12,711,744	\$13,215,971
Net income attributable to common shareholders	1,060,801	983,412	806,840	1,012,140	1,041,048
Basic earnings per share	7.98	7.37	5.96	7.08	6.98

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Diluted earnings per share	7.83	7.25	5.89	6.97	6.87
Cash dividends per share	2.74	2.58	2.52	2.37	1.86
Total assets	15,320,087	15,489,904	12,034,142	12,254,279	13,249,907
Long-term debt	4,318,559	4,861,895	2,652,457	2,698,957	1,498,234

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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 the U.S. Tax Cuts and Jobs Act (TCJ Act) may affect future performance and earnings projections as the amounts reflected in this period are preliminary estimates and exact amounts will not be determined until a later date, and there may be other judicial or regulatory interpretations of the TCJ Act that may also affect these estimates and the actual impact on the Company. 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:

- 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, changes in contract cost and revenue estimates for new development programs, and changes in product mix;
- ability to identify acceptable strategic acquisition targets; uncertainties surrounding timing, successful completion or integration of acquisitions and similar transactions, including the integration of CLARCOR Inc. (Clarcor); ability to successfully divest businesses planned for divestiture and realize the anticipated benefits of such divestitures;
- 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;
- ability to implement successfully the Company's capital allocation initiatives, including timing, price and execution of share repurchases;
- availability, limitations or cost increases of raw materials, component products and/or commodities that cannot be recovered in product pricing;
- ability to manage costs related to insurance and employee retirement and health care benefits;
- compliance costs associated with environmental laws and regulations;
- potential labor disruptions;
- threats associated with and efforts to combat terrorism and cyber-security risks;
- uncertainties surrounding the ultimate resolution of outstanding legal proceedings, including the outcome of any appeals;
- global competitive market conditions, including global reactions to U.S. trade policies, and resulting effects on sales and pricing; and
- global economic factors, including manufacturing activity, air travel trends, currency exchange rates, difficulties entering new markets and general economic conditions such as inflation, deflation, interest rates and credit availability.

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, 2018, and undertakes no obligation to update them unless otherwise required by law.

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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.

The Company's 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. The Company believes 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, 2018	March 31, 2018	June 30, 2017
United States	60.2	59.3	57.8
Eurozone countries	54.9	56.6	57.4
China	51.0	51.0	50.4
Brazil	49.8	53.4	50.5

Global aircraft miles flown increased by approximately six percent and global revenue passenger miles increased approximately seven percent from their comparable 2017 levels. The Company anticipates that U.S. Department of Defense spending with regards to appropriations and operations and maintenance for the U.S. Government's fiscal year 2018 will increase by approximately two percent from their fiscal 2017 level.

Housing starts in June 2018 were 11 percent lower than housing starts in March 2018 and four percent lower than housing starts in June 2017.

The Company believes 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.

The Company believes it can meet its strategic objectives by:

- Serving the customer and continuously enhancing its experience with the Company;

- Successfully executing its Win Strategy initiatives relating to engaged people, premier customer experience, profitable growth and financial performance;

- Maintaining its 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 its values, inclusion and diversity, accountability and teamwork.

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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. In addition, the Company will continue to assess its existing businesses and 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.

## CONSOLIDATED STATEMENT OF INCOME

The Consolidated Statement of Income summarizes the Company's operating performance over the last three years.

(dollars in millions)	2018	2017	2016
Net sales	\$14,302	\$12,029	\$11,361
Gross profit margin	24.7 %	23.6 %	22.3 %
Selling, general and administrative expenses	\$1,657	\$1,454	\$1,359
Selling, general and administrative expenses, as a percent of sales	11.6 %	12.1 %	12.0 %
Interest expense	\$214	\$162	\$137
Other (income), net	(29 )	(61 )	(62 )
(Gain) on disposal of assets	(4 )	(43 )	(11 )
Effective tax rate	37.7 %	26.0 %	27.6 %
Net income attributable to common shareholders	\$1,061	\$983	\$807

Net sales in 2018 were 18.9 percent higher than 2017. The increase in net sales in 2018 was a result of an increase in volume in both the Diversified Industrial North American and Diversified Industrial International operations and acquisitions completed during 2017, which contributed approximately \$970 million to current-year incremental net sales. The effect of currency rate changes increased net sales in 2018 by approximately \$295 million, of which \$270 million was attributable to the Diversified Industrial International operations. Net sales in 2017 were 5.9 percent higher than 2016. The increase in net sales in 2017 was primarily a result of acquisitions made in 2017 (which contributed approximately \$558 million in sales in 2017) and an increase in volume in both the Diversified Industrial International operations and the Aerospace Systems Segment, partially offset by the effect of currency rate changes (which decreased net sales in 2017 by approximately \$84 million).

Gross profit margin (calculated as net sales less cost of sales, divided by net sales) increased in 2018 primarily due to higher margins in the Aerospace Systems Segment resulting from a favorable product mix. All segments benefited from lower operating expenses related to simplification and realignment efforts. These benefits were partially offset by unfavorable product mix, unfavorable raw material prices and inefficiencies created by manufacturing facility consolidations which contributed to lower margins in the Diversified Industrial North American and Diversified Industrial International operations during 2018. Gross profit margin increased in 2017 primarily due to lower operating expenses resulting from the Company's simplification initiative and other restructuring activities, primarily experienced in the Diversified Industrial Segment, partially offset by lower margins in the Aerospace Systems Segment. Foreign currency transaction loss (relating to cash, marketable securities and other investments and intercompany transactions) included in cost of sales for 2018, 2017 and 2016 was \$7.3 million, \$8.1 million and \$22.7 million, respectively. Pension cost included in cost of sales in 2018, 2017 and 2016 was \$86.1 million, \$135.0 million and \$172.4 million, respectively. Included in cost of sales in 2018, 2017 and 2016 were business realignment charges of \$44.9 million, \$35.9 million and \$76.2 million, respectively.



Selling, general and administrative expenses increased 14.0 percent in 2018 and increased 7.0 percent in 2017. The increase in 2018 was primarily due to higher sales expense resulting from an increase in sales, higher amortization expense resulting from recent acquisitions and higher incentive compensation, partially offset by lower acquisition expenses. The increase in 2017 was primarily due to higher amortization expense resulting from recent acquisitions and higher acquisition expenses, partially offset by lower expenses resulting from the Company's simplification initiative, lower expenses associated with the Company's deferred compensation program and lower professional services expenses. Pension cost included in selling, general and administrative expenses in 2018, 2017 and 2016 was \$36.9 million, \$65.8 million and \$74.4 million, respectively. Included in selling, general and administrative expenses in 2018, 2017 and 2016 were business realignment charges of \$36.8 million, \$19.7 million and \$21.1 million, respectively.

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Interest expense in 2018 increased primarily due to higher weighted-average borrowings and higher weighted-average interest rates. Interest expense in 2017 increased primarily due to higher weighted-average borrowings, partially offset by lower weighted-average interest rates.

Other (income), net in 2018, 2017 and 2016 includes \$50.5 million, \$42.4 million, and \$25.6 million of income, respectively, related to the Company's equity interests in joint ventures. Other (income), net in 2018 also includes a writedown of an investment of \$27.4 million and a loss on the sale of an investment of \$13.8 million.

(Gain) on disposal of assets includes a loss of \$20 million on the sale of a business in 2018, a gain of \$42 million related to the sale of a product line in 2017 and a gain of \$11.5 million related to the sale of businesses in 2016.

Effective tax rate in 2018 was higher than the comparable prior-year period primarily due to the net impact of one-time adjustments recorded as a result of the TCJ Act. See Note 4 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for further discussion of the impact of the TCJ Act. Excluding the impact of the TCJ Act one-time adjustments, the effective tax rate for 2018 was lower primarily due to the reduced U.S. income tax rate resulting from enactment of the TCJ Act and a net increase in discrete tax benefits, partially offset by an increase in taxes related to international activities. The effective tax rate in 2017 was favorably impacted by an increase of discrete tax benefits, mostly related to stock-based compensation expense.

**BUSINESS SEGMENT INFORMATION**

The Business Segment information presents sales, operating income and assets 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)	2018	2017	2016
Sales			
North America	\$6,727	\$5,367	\$4,955
International	5,260	4,378	4,145
Operating income			
North America	1,076	874	790
International	765	579	448
Operating income as a percent of sales			
North America	16.0 %	16.3 %	15.9 %
International	14.5 %	13.2 %	10.8 %
Backlog	\$2,167	\$2,041	\$1,455
Assets	13,369	13,367	8,729
Return on average assets	13.8 %	13.1 %	14.2 %

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

	2018	2017
Diversified Industrial North America – as reported	25.3 %	8.3 %
Acquisitions	14.9 %	8.8 %
Divestitures	(0.1 )%	— %
Currency	0.4 %	(0.3)%
Diversified Industrial North America – without acquisitions, divestitures and currency	10.1 %	(0.2)%
Diversified Industrial International – as reported	20.1 %	5.6 %
Acquisitions	3.9 %	2.9 %
Divestitures	(0.2 )%	— %
Currency	6.2 %	(1.6)%
Diversified Industrial International – without acquisitions, divestitures and currency	10.2 %	4.3 %
Total Diversified Industrial Segment – as reported	23.0 %	7.1 %
Acquisitions	10.0 %	6.1 %
Divestitures	(0.2 )%	— %
Currency	3.0 %	(0.9)%
Total Diversified Industrial Segment – without acquisitions, divestitures and currency	10.2 %	1.9 %

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 and divestitures made within the prior four fiscal quarters as well as the effects of currency exchange rates (a non-GAAP measure). The effects of acquisitions, divestitures 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 2018 for the Diversified Industrial North American operations increased 25.3 percent from 2017 as compared to increasing 8.3 percent from 2016 to 2017. Acquisitions completed during 2017 contributed approximately \$798 million in incremental sales in 2018, and the effect of currency exchange rates increased sales in 2018 by \$20 million. Excluding acquisitions, divestitures and the effect of currency rate changes, sales in 2018 for the Diversified Industrial North American operations increased 10.1 percent from prior-year levels reflecting higher demand from distributors and end users in the construction equipment, cars and light trucks, heavy-duty truck, oil and gas, and general industrial machinery markets. Excluding acquisitions and the effect of currency rate changes, sales in 2017 for the Diversified Industrial North American operations remained flat from 2016 levels reflecting higher demand from distributors offset by lower demand from end users in the heavy-duty truck, cars and light trucks, life sciences, and oil and gas markets.

Sales in the Diversified Industrial International operations increased 20.1 percent in 2018 as compared to increasing 5.6 percent from 2016 to 2017. Acquisitions completed in 2017 contributed approximately \$173 million in incremental sales in 2018. The effect of currency rate changes increased sales by \$270 million, reflecting the weakening of the U.S. dollar primarily against currencies in the Eurozone countries, China and the United Kingdom. Excluding acquisitions, divestitures and the effect of currency rate changes, sales in 2018 for the Diversified Industrial International operations increased 10.2 percent from 2017 levels due to higher volume in all regions. The Asia Pacific region contributed approximately 50 percent of the increase in sales due to higher demand from distributors as well as end users in the construction equipment, semiconductor and engine markets, partially offset by lower end-user demand in the telecommunications and marine markets. Europe contributed approximately 40 percent of the increase in sales due to higher demand from distributors and end users in the construction equipment, mining, heavy-duty truck and engine markets, partially offset by lower end-user demand in the power generation market. Within Latin America, higher demand from distributors and end users in the construction equipment and heavy-duty truck markets contributed to the increase in sales.



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Excluding acquisitions and the effect of currency rate changes, sales in 2017 in the Diversified Industrial International operations increased 4.3 percent from 2016, primarily due to higher volume in the Asia Pacific region and Latin America, partially offset by lower volume in Europe. Within the Asia Pacific region, higher demand was experienced from distributors as well as end users in the semiconductor, cars and light trucks, telecommunications, construction equipment and engine markets. Within Latin America, higher demand was experienced from distributors and end-user demand in the agriculture equipment market. Within Europe, higher demand from distributors and end-user demand in the construction equipment, forestry, and miscellaneous manufacturing markets was more than offset by lower end-user demand in the general industrial machinery, oil and gas, and marine markets.

The lower operating margins in 2018 in the Diversified Industrial North American operations were primarily due to an unfavorable product mix, unfavorable raw material prices, higher amortization expense and inefficiencies created by manufacturing facility consolidations, partially offset by the impact of higher sales volume and lower operating expenses resulting from prior-year restructuring activities and the Company's simplification initiative. The increase in operating margins in 2018 for the Diversified Industrial International operations was primarily due to higher sales volume and lower operating expenses resulting from restructuring activities and the Company's simplification initiative, partially offset by higher amortization expense, inefficiencies created by manufacturing facility consolidations and an unfavorable product mix.

The increase in operating margins in 2017 in the Diversified Industrial North American operations was primarily due to lower operating expenses resulting from the Company's simplification initiative and other restructuring activities, resulting in manufacturing efficiencies, partially offset by higher acquisition-related expenses and higher amortization expense. The increase in operating margins in 2017 in the Diversified Industrial International operations was primarily due to the higher sales volume, lower operating expenses resulting from restructuring activities and the Company's simplification initiative, resulting in manufacturing efficiencies.

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

(dollars in millions)	2018	2017	2016
Diversified Industrial North America	\$ 37	\$ 20	\$ 31
Diversified Industrial International	41	33	60

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. The majority of the Diversified Industrial International business realignment charges were incurred in Europe. In addition to the business realignment charges presented in the table above, the Company recognized \$12 million of expense associated with enhanced retirement benefits in connection with a plant closure during 2016. The Company anticipates that cost savings realized from the work force reduction measures taken during 2018 will increase 2019 operating income by approximately three percent in both the Diversified Industrial North American and Diversified Industrial International operations. In 2019, the Company expects to continue to take actions necessary to structure appropriately the operations of the Diversified Industrial Segment, including the continued integration of 2017 acquisitions. Such actions are expected to result in approximately \$35 million in charges in 2019.

The Company anticipates Diversified Industrial North American sales for 2019 will increase between 2.6 and 5.6 percent from the 2018 level and Diversified Industrial International sales for 2019 will range between a 2.5 percent decrease and 0.5 percent increase from the 2018 level. Diversified Industrial North American operating margins in 2019 are expected to range from 16.4 to 17.2 percent and Diversified Industrial International margins are expected to

range from 15.3 to 15.7 percent.

The increase in total Diversified Industrial Segment backlog in 2018 was primarily due to orders exceeding shipments in the Asia Pacific region and North America, with the Asia Pacific region accounting for approximately 60 percent of the increase and North America accounting for approximately 40 percent of the increase. The increase in total Diversified Industrial Segment backlog in 2017 was primarily due to recent acquisitions as well as orders exceeding shipments in all regions, with North America and Europe each accounting for approximately 40 percent of the increase. 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.

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Diversified Industrial Segment assets in 2018 remained flat as compared to the 2017 balance. At June 30, 2018, increases in cash and cash equivalents and trade accounts receivable were offset by a decrease in intangible assets. The increase in total Diversified Industrial Segment assets in 2017 was primarily due to acquisitions, partially offset by the effect of currency rate fluctuations.

## Aerospace Systems Segment

(dollars in millions)	2018	2017	2016
Sales	\$2,316	\$2,285	\$2,260
Operating income	398	337	338
Operating income as a percent of sales	17.2 %	14.8 %	14.9 %
Backlog	\$1,954	\$1,753	\$1,762
Assets	1,447	1,413	1,431
Return on average assets	27.8 %	23.7 %	24.1 %

Sales in 2018 were higher than the 2017 level primarily due to higher volume in the commercial and military aftermarket businesses, partially offset by lower volume in the commercial and military original equipment manufacturer (OEM) businesses. Sales in 2017 were higher than the 2016 level primarily due to higher volume in the military OEM and commercial and military aftermarket businesses, partially offset by lower volume in the commercial OEM business.

The higher margin in 2018 was primarily due to a favorable product mix resulting from higher aftermarket volume and profitability and lower engineering development and operating expenses, partially offset by unfavorable contract settlements and higher product support costs. The slightly lower margin in 2017 was primarily due to an unfavorable OEM product mix, higher warranty-related costs, higher favorable contract settlements in 2016 and higher business realignment expenses, partially offset by higher aftermarket profitability and lower engineering development and operating expenses.

The increase in backlog in 2018 was primarily due to orders exceeding shipments in the commercial and military OEM businesses and the commercial and military aftermarket businesses. The decrease in backlog in 2017 was primarily due to shipments exceeding orders in the commercial and military OEM businesses, partially offset by orders exceeding shipments in the commercial and military 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.

For 2019, sales are expected to increase between 2.5 and 4.5 percent from the 2018 level and operating margins are expected to range from 17.2 to 17.6 percent. A higher concentration of commercial OEM volume in future product mix and higher than expected new product development costs could result in lower margins.

The increase in assets in 2018 was primarily due to increases in trade accounts receivable and other receivables, partially offset by a decrease in other assets. The decrease in assets in 2017 was primarily due to a decrease in trade accounts receivable, intangible assets and other assets, partially offset by an increase in cash and cash equivalents and inventory.

Corporate general and administrative expenses were \$200.9 million in 2018 compared to \$172.6 million in 2017 and \$173.2 million in 2016. As a percent of sales, corporate general and administrative expenses in both 2018 and 2017 were 1.4 percent compared to 1.5 percent in 2016. The higher expense in 2018 was primarily due to higher expenses associated with the Company's incentive compensation programs. The lower expense in 2017 was primarily due to

lower expenses associated with the Company's deferred compensation program as well as lower professional services fees.

Corporate assets decreased 28.9 percent in 2018 compared to a decrease of 62.1 percent from 2016 to 2017. The decrease in Corporate assets in 2018 was primarily due to a decrease in cash and cash equivalents, partially offset by an increase in non-current deferred taxes. The decrease in Corporate assets in 2017 was primarily due to decreases in cash and cash equivalents, marketable securities and non-current deferred taxes. Decreases in these assets in 2017 primarily resulted from the Clarcor acquisition.



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## Other expense (in the Business Segment Information)

(dollars in millions)

Expense (income)	2018	2017	2016
Foreign currency transaction	\$7	\$8	\$23
Stock-based compensation	51	52	49
Pensions	26	78	116
Divestitures and asset sales and writedowns	(4 )	(43 )	(11 )
Sale and writedown of investments	41	—	—
Interest income	(15 )	(12 )	(18 )
Acquisition expenses	5	41	—
Other items, net	11	3	(8 )
	\$122	\$127	\$151

Foreign currency transaction primarily relates to the impact of changes in foreign exchange rates on cash, marketable securities and other investments and intercompany transactions. The lower pension expense in 2018 is primarily due to a lower level of amortization of past actuarial losses. The lower pension expense in 2017 is primarily due to a change in methodology to use of the spot yield curve approach to estimate the interest cost component of net periodic pension cost instead of the single-weighted average discount rate. Divestitures and asset sales and writedowns in 2018 includes a net gain on the sale of assets, partially offset by a loss on the sale of the global Facet filtration business. Divestitures and asset sales and writedowns in 2017 includes a gain on the sale of the Company's Autoline product line. Acquisition expenses in 2017 primarily relate to Clarcor (see Note 2 to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for further discussion).

## 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)	2018	2017
Cash	\$855	\$924
Trade accounts receivable, net	2,146	1,931
Inventories	1,621	1,549
Shareholders' equity	5,860	5,262
Working capital	\$1,888	\$1,384
Current ratio	1.6	1.4

Cash (comprised of cash and cash equivalents and marketable securities and other investments) includes \$836 million and \$874 million held by the Company's foreign subsidiaries at June 30, 2018 and 2017, respectively. As a result of the TCJ Act, the prior worldwide tax system was replaced by a territorial tax system, which generally allows companies to repatriate future foreign source earnings without incurring additional U.S. federal taxes. However, other U.S. or foreign taxes may be incurred should cash be distributed between the Company's subsidiaries. The Company has determined it will no longer permanently reinvest certain foreign earnings. All other undistributed foreign earnings remain permanently reinvested. Refer to Note 4 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 51 days in both 2018 and 2017. The Company believes that its receivables are collectible and appropriate allowances for doubtful accounts have been recorded.

Inventories increased \$72 million from 2017 primarily due to a \$107 million increase in inventories in the Diversified Industrial Segment, partially offset by a decrease of \$20 million related to a sale of a business and a decrease of \$10 million in the Aerospace Systems Segment. Days supply of inventory on hand was 64 days in 2018 and 67 days in 2017.

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Shareholders' equity activity during 2018 included a decrease of \$300 million related to share repurchases, an increase of \$179 million related to pensions and postretirement benefits resulting from net actuarial gains and amortizations and a decrease of \$18 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)	2018	2017	2016
Cash provided by (used in):			
Operating activities	\$1,600	\$1,302	\$1,211
Investing activities	20	(3,365 )	(265 )
Financing activities	(1,682 )	1,783	(843 )
Effect of exchange rates	(1 )	(57 )	(62 )
Net (decrease) increase in cash and cash equivalents	\$(63 )	\$(337 )	\$41

Cash flows from operating activities in 2018 reflects an increase in net income from 2017 of \$77 million and a reduction of \$251 million for cash used by working capital items. Cash flows from operating activities in 2017 reflects an increase in net income from 2016 of \$177 million and a reduction of \$28 million for cash used by working capital items. Cash flows from operating activities in 2016 reflects an increase of \$120 million for cash provided by working capital items. The Company also made discretionary cash contributions to the Company's domestic qualified defined benefit plan of \$220 million in 2017 and \$200 million in 2016.

Cash flows from investing activities in 2018 benefited from proceeds related to the sale of the global Facet filtration business, and sale of plant and equipment. Cash flows from investing activity in 2017 includes \$4,069 million related to acquisition activities, primarily for the Clarcor acquisition. Cash flows from investing activities in 2018, 2017, and 2016 also includes \$3 million, \$814 million, and \$(51) million, respectively, in net maturities (purchases) of marketable securities and other investments.

Cash flows from financing activities during 2018 included the repayment of long-term debt of approximately \$945 million. Cash flows from financing activities during 2017 included the issuance of approximately \$2,646 million of notional borrowings of long-term debt as well as the repayment of long-term debt of approximately \$381 million, which includes debt assumed in the Clarcor acquisition. The Company repurchased 1.7 million common shares for \$300 million during 2018 as compared to the repurchase of 2.0 million common shares for \$265 million in 2017 and 5.1 million common shares for \$558 million in 2016.

Dividends have been paid for 272 consecutive quarters, including a yearly increase in dividends for the last 62 years. The current annual dividend rate is \$3.04 per common share.

The Company's goal is to maintain no less than an "A" rating on senior debt to ensure availability and reasonable cost of external funds. In periods following significant capital deployment, including for share repurchases or acquisitions, certain of the ratings assigned to the Company's senior debt may be, and at June 30, 2018 and 2017 were, lower than the stated goal. The Company's ability to borrow funds at desirable tenors and interest rates in 2018 and 2017 was not significantly impacted by certain ratings on senior debt that were below an "A" level. The Company does not believe that its ability to borrow funds in the future at desirable tenors and affordable interest rates will be impacted if certain of its ratings are below an "A" level at the time of such borrowings. At June 30, 2018, 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	A-
Moody's Investor Services, Inc.	Baa1
Standard & Poor's	A

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As of June 30, 2018, the Company had a line of credit totaling \$2,000 million through a multi-currency revolving credit agreement with a group of banks, of which \$1,466 million was available at June 30, 2018. Refer to Note 8 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 \$2,000 million of short-term commercial paper notes. There were \$534 million outstanding commercial paper notes as of June 30, 2018, and the largest amount of commercial paper notes outstanding during the last quarter of 2018 was \$736 million.

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. The Company is in compliance with all covenants and expects to remain in compliance during the term of the credit agreements and indentures.

Contractual Obligations - The total amount of gross unrecognized tax benefits, including interest, for uncertain tax positions was \$175 million at June 30, 2018. 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 TCJ Act (Note 4)	\$255	\$20	\$41	\$41	\$153
Long-term debt (Note 9)	4,460	100	—	417	3,943
Interest on long-term debt	2,375	152	303	279	1,641
Operating leases (Note 9)	226	79	92	27	28
Retirement benefits (Note 10)	124	76	12	11	25
Total	\$7,440	\$427	\$448	\$775	\$5,790

## 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 - Substantially all of the Diversified Industrial Segment revenues are recognized when persuasive evidence of an arrangement exists, product has shipped and the risks and rewards of ownership have transferred or services have been rendered, the price to the customer is fixed and determinable and collectibility is reasonably assured, which is generally at the time the product is shipped. The Aerospace Systems Segment recognizes

revenues primarily using the percentage-of-completion method, and the extent of progress toward completion is primarily measured using the units-of-delivery method. The Company estimates costs to complete long-term contracts for purposes of evaluating and establishing contract reserves. The estimation of these costs 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 cost 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.

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Impairment of Goodwill and Long-Lived Assets - Goodwill is tested 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. For the Company, a reporting unit is one level below the operating segment level. Determining whether an impairment has occurred requires the valuation of the respective reporting unit, which the Company has consistently estimated using primarily a discounted cash flow model. The Company believes that the use of a discounted cash flow model results in the most accurate calculation of a reporting unit's fair value since the market value for a reporting unit is not readily available. The discounted cash flow analysis 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 used in the discounted cash flow analysis. The Company has consistently used a discount rate commensurate with its cost of capital, adjusted for inherent business risks, and an appropriate terminal growth factor. The Company also reconciles the estimated aggregate fair value of its reporting units as derived from the discounted cash flow analysis to the Company's overall market capitalization.

The results of the Company's 2018 annual goodwill impairment test performed as of December 31, 2017 indicated that no goodwill impairment existed. However, certain reporting units within the Diversified Industrial Segment had estimated fair values that the Company determined, from a quantitative and qualitative perspective, were not significantly in excess of their carrying values. For these reporting units, the sales growth assumptions had the most significant influence on the estimation of fair value. The key uncertainties in these sales growth assumptions include end-market growth, the ability to secure business with new customers and new product development. The Company continually monitors its reporting units for impairment indicators and updates assumptions used in the most recent calculation of the fair value of a reporting unit as appropriate. The Company is unaware of any current market trends that are contrary to the assumptions made in the estimation of the fair value of any of its reporting units. If actual experience is not consistent with the assumptions made in the estimation of the fair value of the reporting units, it is possible that the estimated fair value of certain reporting units could fall below their carrying value resulting in the necessity to conduct additional goodwill impairment tests.

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 2018, there were no events or circumstances that indicated that the carrying value of the Company's long-lived assets held for use were not recoverable.

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. Beginning in 2017, the Company changed the method used to estimate the service and interest cost components of net periodic pension and other postretirement benefit costs from the single-weighted average discount rate to spot yield curve approach. The change does not affect the measurement of the Company's benefit obligations. The new method provides a more precise measure of service and interest costs by improving the correlation between projected benefit cash flows and the discrete spot yield curve rates and was accounted for as a change in estimate prospectively beginning in the first quarter of 2017. Annual net periodic pension expense in 2017 was lower by approximately \$30 million compared to the previous method. Annual net periodic postretirement cost was not materially different.

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 \$14 million effect on annual pension expense and a 50 basis point decrease in the discount rate is estimated to increase annual pension expense by \$17 million. As of June 30, 2018, \$841 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. 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 10 to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.



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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.

On December 22, 2017, the TCJ Act was enacted into law. The TCJ Act significantly reforms the Internal Revenue Code of 1986, as amended, by among other things, lowering the U.S. corporate income tax rate and creating a territorial tax system (with a one time transition tax imposed on previously unremitted foreign earnings and profits). The Securities and Exchange Commission staff issued Staff Accounting Bulletin 118 (SAB 118), which provides guidance on accounting for the tax effects of the TCJ Act. SAB 118 provides a measurement period that should not extend beyond one year of the TCJ Act's enactment date, to complete the applicable accounting of the related tax impacts of the TCJ Act. The final impact of the TCJ Act may differ from the provisional amounts recorded in the current period, due to, among other things, any updates to estimates that have been utilized in the calculation of the tax impacts, changes in interpretation of the existing law, or additional guidance from U. S. Treasury department or the Internal Revenue Service.

Further information on income taxes is provided in Note 4 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. These loss accruals are reviewed periodically and adjustments are made 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 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.

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. Gains or losses on derivatives that are not hedges are adjusted to fair value through the Consolidated Statement of Income. Gains or losses on derivatives that are hedges are adjusted to fair value through accumulated other comprehensive income (loss) in the Consolidated Balance Sheet until the hedged item is

recognized in earnings. 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, 2018 by approximately \$7 million.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of  
Parker-Hannifin Corporation  
Cleveland, Ohio

Opinions on the Financial Statements and Internal Control over Financial Reporting  
We have audited the accompanying consolidated balance sheets of Parker-Hanni