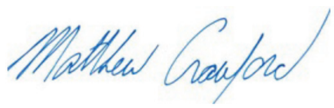
ParkOhio

2022 Annual Report

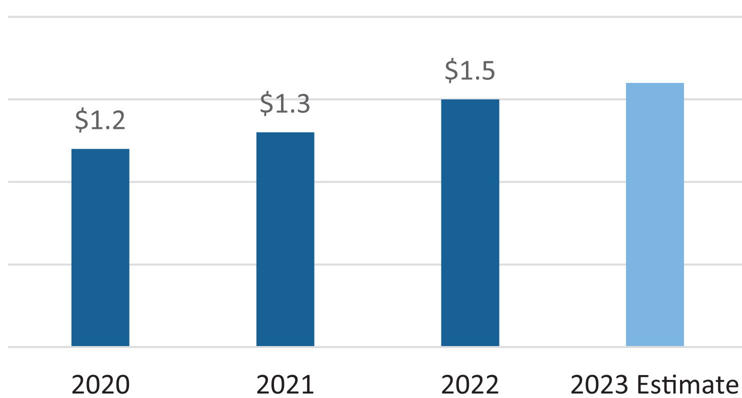
To Our Fellow Shareholders:

Our Company had record growth in 2022 despite a challenging period highlighted by inflation, supply chain challenges and other disruptions. We emerge as a leaner and more profitable entity. As we look to the future, we see continued growth and opportunity particularly in the North American manufacturing sector as we see substantial opportunities in infrastructure, energy transition and key traditional markets which have only recently begun to recover.

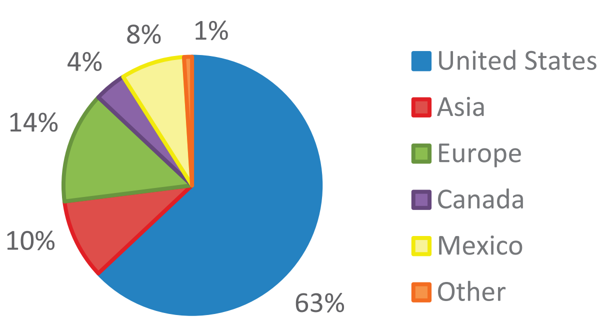


Matthew V. Crawford
Chairman, Chief Executive Officer and President

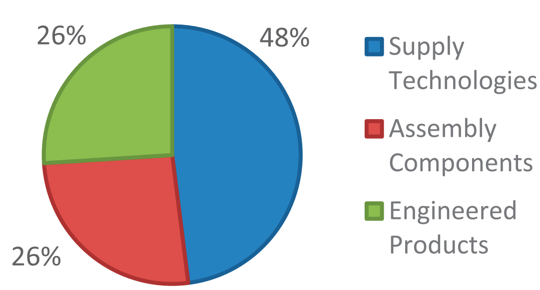
Net Sales from Continuing Operations
(in billions)



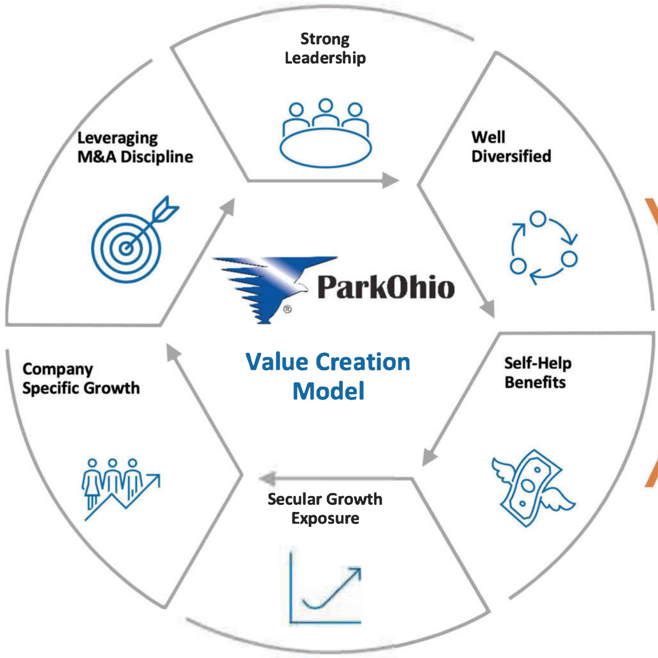
Ship to Sales by Geographic Region



Sales by Business Segment



Several Channels to Create Meaningful Value



A Strong and Invested Leadership Team
- 120+ combined years of industry experience and tenure at PKOH
- Pivoting towards execution with new leadership talent at the segment level

Well Diversified Portfolio of Premier Customers
- 25+ industries served
- Supported by a global footprint of 135+ facilities

Self-Help Benefits Expected to Drive Margin Improvement
- Recent and ongoing footprint optimization and operational improvement actions

Significant Secular and Company Specific Growth Opportunities
- Exposure to long-term growth trends such as electrification, renewable energy, light-weighting, aerospace & defense, and incremental infrastructure spend
- Company specific growth stemming from aftermarket spend across an aging asset base, capacity additions, as well as product innovation and expansion

Long History of Successful M&A Discipline Remains Ongoing
- Over twenty acquisitions since 2010 including two in 2022
- Many of the industrial markets PKOH competes in are fragmented, which create opportunities for buying smaller niche companies that enhance market share growth and profitability

A Purpose-driven Company Aiming To Win

For over **100 years ParkOhio** has combined an entrepreneurial culture and a commitment to excellence to support our customers in helping people around the world increase their quality of life. We deliver on this mission through three business segments which provide industry leading products and services

Our Core Values

Decentralization & Entrepreneurship
Providing the responsibility and authority to make decisions at the greatest point of impact throughout our organization

Bettering Our Communities
We believe in providing employees a safe working environment and empowering them to make a positive impact in their community

Getting Better Every Day
We strive for continuous improvement in our operations across the organization

Compete to Win
We expect to succeed in growing our sales, profitability, and continue to be leaders in the markets we serve while maintaining respect of our partners and competitors

ParkOhio®

2022 FORM 10-K

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

OR

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

For the transition period from __________ to __________

Commission file number: 000-03134

PARK-OHIO HOLDINGS CORP.
(Exact name of registrant as specified in its charter)

Ohio	**34-1867219**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
6065 Parkland Boulevard, Cleveland, Ohio	**44124**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code (440) 947-2000

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, Par Value $1.00 Per Share	PKOH	The NASDAQ Stock Market LLC

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

None

Park-Ohio Holdings Corp. is a successor issuer to Park-Ohio Industries, Inc.

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

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

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

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

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

Large accelerated filer	☐	Accelerated filer	☑
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

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

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

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

Aggregate market value of the registrant's Common Stock held by non-affiliates of the registrant: Approximately $216,214,812 based on the closing price of $15.86 per share of the registrant's Common Stock on June 30, 2022.

Number of shares outstanding of registrant's Common Stock, par value $1.00 per share, as of February 28, 2023: 12,807,786.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the Annual Meeting of Shareholders to be held on or about May 17, 2023 are incorporated by reference into Part III of this Annual Report on Form 10-K.

PARK-OHIO HOLDINGS CORP.

FORM 10-K ANNUAL REPORT
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2022

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PART I

Item 1. *Business*

Overview

Park-Ohio Holdings Corp. ("Holdings" or "ParkOhio"), incorporated in Ohio since 1998, is a diversified international company providing world-class customers with a supply chain management outsourcing service, capital equipment used on their production lines, and manufactured components used to assemble their products.

References herein to "we" or "the Company" include, where applicable, Holdings and Park-Ohio Industries, Inc. and Holdings' other direct and indirect subsidiaries.

During the fourth quarter of 2022, we determined that our Aluminum Products business met the held-for-sale and discontinued operations accounting criteria. Accordingly, the Company has reported the held-for-sale assets and liabilities, the operating results and the cash flows of Aluminum Products in discontinued operations for all periods presented throughout this Annual Report on Form 10-K. Unless otherwise indicated, amounts and activity in this Annual Report are presented on a continuing operations basis. See Note 4, "Discontinued Operations," in the Notes to Consolidated Financial Statements for further information. On December 30, 2022, we entered into a memorandum of understanding (the "MOU") with a third party pursuant to which the third party would purchase our Aluminum Products business. The sale of the Aluminum Products business is subject to the entry into a definitive purchase agreement and other customary conditions.

The Company operates through three reportable segments: Supply Technologies, Assembly Components (which previously included the Aluminum Products business) and Engineered Products. As of December 31, 2022, we employed approximately 7,100 people, including employees in our Aluminum Products business.

The following table summarizes the key attributes of each of our business segments:

	Supply Technologies	**Assembly Components**	**Engineered Products**
NET SALES FOR 2022	$711.5 million	$388.8 million	$392.6 million
SELECTED PRODUCTS	Sourcing, planning and procurement of over 280,000 production components, including: • Fasteners • Pins • Valves • Hoses • Wire harnesses • Clamps and fittings • Rubber and plastic components • Other Class C and MRO products	• Extruded and molded rubber and thermoplastic products • Fuel filler assemblies • Gasoline direct injection systems	• Induction heating and melting systems • Pipe threading systems • Industrial oven systems • Forging presses • Forged steel and machined products
SELECTED INDUSTRIES SERVED	• Heavy-duty truck • Power sports and recreational equipment • Aerospace and defense • Semiconductor equipment • Electrical distribution and controls • Consumer electronics • Bus and coaches • Automotive • Agricultural and construction equipment • HVAC • Lawn and garden • Plumbing • Medical devices	• Automotive and light vehicle • Agricultural equipment • Construction equipment • Heavy-duty truck • Marine equipment • Bus	• Ferrous and non-ferrous metals • Coatings • Forging • Foundry • Heavy-duty truck • Construction equipment • Automotive • Oil and gas • Rail • Aerospace and defense • Power generation

The Company consists of the following segments:

Supply Technologies

Our Supply Technologies business provides our customers with Total Supply Management™, a proactive solutions approach that manages the efficiencies of every aspect of supplying production parts and materials to our customers' manufacturing floor, from strategic planning to program implementation. Total Supply Management™ includes engineering and design support, part usage and cost analysis, supplier selection, quality assurance, bar coding, product packaging and tracking, just-in-time and point-of-use delivery, electronic billing services and ongoing technical support. We operate more than 80 logistics service centers in the United States, Mexico, Canada, Czech Republic, Puerto Rico, Scotland, Hungary, China, Taiwan, Singapore, India, England, France, Spain, Poland, Malaysia, Northern Ireland and Ireland, including production sourcing and support centers in the United States and Asia. Through our supply chain management programs, we supply more than 280,000 globally-sourced production components, many of which are specialized and customized to meet individual customers' needs.

Total Supply Management™ provides our customers with an expert partner in strategic planning, global sourcing, technical services, parts and materials, logistics, distribution and inventory management of production components. Some production components are characterized by low per unit supplier prices relative to the indirect costs of supplier management, quality assurance, inventory management and delivery to the production line. In addition, Supply Technologies delivers an increasingly broad range of higher-value production components including valves, fuel hose assemblies, electro-mechanical hardware, labels, fittings, steering components and many others. Applications engineering specialists and the direct sales force work closely with the engineering staff of OEM customers to recommend the appropriate production components for a new product or to suggest alternative components that reduce overall production costs, streamline assembly or enhance the appearance or performance of the end product. Supply Technologies also provides spare parts and aftermarket products to end users of its customers' products.

Total Supply Management™ is typically provided to customers pursuant to sole-source arrangements. We believe our approach distinguishes us from traditional buy/sell distributors, as well as manufacturers who supply products directly to customers, because we provide the supply chain management of our customers' high-volume production components. We administer the processes customized to each customer's needs by replacing numerous current suppliers with a sole-source relationship with Supply Technologies. Our highly-developed, customized information systems provide global transparency and flexibility through the complete supply chain. This enables our customers to: (1) significantly reduce the direct and indirect cost of production component processes by outsourcing internal purchasing, quality assurance and inventory fulfillment responsibilities; (2) reduce the amount of working capital invested in inventory and floor space; (3) reduce component costs through purchasing efficiencies, including bulk buying and supplier consolidation; and (4) receive technical expertise in production component selection, design and engineering. Our sole-source arrangements foster long-term, entrenched supply relationships with our customers and, as a result, the average tenure of service for our top 50 Supply Technologies clients exceeds ten years. Supply Technologies also supplies wholesale industrial products to other manufacturers and distributors pursuant to master or authorized distributor relationships.

The Supply Technologies segment also engineers and manufactures precision cold-formed and cold-extruded fasteners and other products, including locknuts, SPAC® nuts, SPAC® bolts and wheel hardware, which are principally used in applications where controlled tightening is required due to high vibration. Supply Technologies produces both standard items and specialty products to customer specifications, which are used in large volumes by customers in the automotive, heavy-duty truck and rail industries.

Markets and Customers. For the year ended December 31, 2022, approximately 61% of Supply Technologies' net sales were to domestic customers. Remaining sales were primarily to manufacturing facilities of large, multinational customers located in Europe, Mexico, Asia and Canada. Total Supply Management™ is used extensively in a variety of industries, and demand is generally related to the state of the economy and to the overall level of manufacturing activity.

Supply Technologies markets and sells its approach to over 7,500 customers domestically and internationally. The five largest customers, to which Supply Technologies sells through sole-source contracts to multiple operating divisions or locations, accounted for approximately 35% and 33% of the sales of Supply Technologies in 2022 and 2021, respectively. The loss of any two or more of its top five customers could have a material adverse effect on the results of operations and financial condition of this segment.

Competition. A limited number of companies compete with Supply Technologies to provide supply management services for production parts and materials. Supply Technologies competes primarily on the basis of its Total Supply Management™ approach, including engineering and design support, part usage and cost analysis, supplier selection, quality assurance, bar coding, product packaging and tracking, just-in-time and point-of-use delivery, electronic billing services and ongoing technical support, and its geographic reach, extensive product selection, price and reputation for high service levels. Numerous U.S. and foreign companies compete with Supply Technologies in manufacturing cold-formed and cold-extruded products.

Assembly Components

Assembly Components (which excludes the discontinued Aluminum Products business) manufactures products oriented towards fuel efficiency, reduced emission standards and vehicle electrification. Assembly Components designs, develops and manufactures: highly efficient, high pressure direct fuel injection fuel rails and pipes; fuel filler pipes that route fuel from the gas cap to the gas tank; and flexible multi-layer plastic and rubber assemblies used to transport fuel from the vehicle's gas tank and then, at extreme high pressure, to the engine's fuel injector nozzles. These advanced products, coupled with Turbo Enabled engines, make up large and growing engine architecture for all worldwide car manufacturers. Assembly Components also designs and manufactures Turbo Charging hoses along with Turbo Coolant hoses that will be required as engines get downsized to 3 or 4 cylinders from 6 or 8 cylinders. This engine downsizing increases efficiency, while dramatically decreasing pollution levels.

Assembly Components operates 12 manufacturing facilities and four technical offices in the United States, Mexico, China, the United Kingdom and the Czech Republic. In addition, we also provide value-added services such as design engineering, machining and parts assembly.

Markets and Customers. For the year ended December 31, 2022, approximately 73% of Assembly Components' net sales were to domestic customers. The five largest customers of Assembly Components accounted for approximately 55% and 54% of segment sales for 2022 and 2021, respectively. These sales, across multiple operating divisions, are through sole-source contracts. The loss of any one of these customers could have a material adverse effect on the results of operations and financial condition of this segment.

Competition. Assembly Components competes principally on the basis of its ability to: (1) engineer and manufacture high-quality, cost-effective assemblies utilizing multiple technologies in large volumes; (2) provide timely delivery; and (3) retain the manufacturing flexibility necessary to quickly adjust to the needs of its customers. There are few domestic companies with the capabilities to meet customers' stringent quality and service standards and lean manufacturing techniques. As one of these suppliers, Assembly Components is well-positioned to benefit as customers continue to consolidate their supplier base.

Engineered Products

Our Engineered Products segment operates a diverse group of niche manufacturing businesses that design and manufacture a broad range of highly-engineered products, including induction heating and melting systems, pipe threading systems and forged and machined products. We manufacture these products in 15 domestic facilities throughout the United States and 18 international facilities in Canada, Mexico, the United Kingdom, Belgium, Germany, China, Italy, India, Japan, Spain, France and Brazil.

Our induction heating and melting business utilizes proprietary technology and specializes in the engineering, construction, service and repair of induction heating and melting systems, primarily for the ferrous and non-ferrous metals, silicon, coatings, forging, foundry, automotive and construction equipment industries. Our induction heating and melting systems are engineered and built to customer specifications and are used primarily for melting, heating, and surface hardening of metals and curing of coatings. Approximately 46% of our induction heating and melting systems' revenues are derived from the sale of replacement parts and provision of field service, primarily for the installed base of our own products. Our pipe threading business serves the oil and gas industry. We also engineer and install mechanical forging presses, sell spare parts and provide field service for the large existing base of mechanical forging presses and hammers in North America. We machine, induction harden and surface finish crankshafts and camshafts, used primarily in locomotives. We forge aerospace and defense structural components such as landing gears and struts, as well as rail products such as railcar center plates and draft lugs.

Markets and Customers. For the year ended December 31, 2022, approximately 56% of Engineered Products' net sales were to domestic customers. We sell induction heating and other capital equipment to component manufacturers and OEMs in the ferrous and non-ferrous metals, silicon, coatings, forging, foundry, automotive, truck, construction equipment and oil and gas industries. We sell forged and machined products to locomotive manufacturers, machining companies and sub-assemblers who finish aerospace and defense products for OEMs, and railcar builders and maintenance providers.

Competition. We compete with small-to medium-sized domestic and international equipment manufacturers on the basis of service capability, ability to meet customer specifications, delivery performance and engineering expertise. We compete domestically and internationally with small-to medium-sized forging and machining businesses on the basis of product quality and precision.

Sales and Marketing

Supply Technologies markets its products and services in the United States, Mexico, Canada, Europe and Asia primarily through its direct sales force, which is assisted by applications engineers who provide the technical expertise necessary to assist the engineering staff of OEM customers in designing new products and improving existing products. Assembly Components primarily markets and sells its products in North America through internal sales personnel and independent sales representatives. Engineered Products primarily markets and sells its products in North America through both internal sales personnel and independent sales representatives. Induction heating and pipe threading equipment is also marketed and sold in Europe, Asia, Latin America and Africa through both internal sales personnel and independent sales representatives. In some instances, the internal engineering staff assists in the sales and marketing effort through joint design and applications-engineering efforts with major customers.

Raw Materials and Suppliers

Supply Technologies purchases substantially all of its production components from third-party suppliers. Supply Technologies has multiple sources of supply for its components. An increasing portion of Supply Technologies' production components are purchased from suppliers in foreign countries, primarily Canada, Taiwan, China, South Korea, Singapore, India and multiple European countries. Supply Technologies is dependent upon the ability of such suppliers to meet stringent quality and performance standards and to conform to delivery schedules. Assembly Components and Engineered Products purchase substantially all of their raw materials, principally certain component parts incorporated into their products, from third-party suppliers and manufacturers. Most raw materials required by Assembly Components and Engineered Products are commodity products available from several domestic suppliers. Management believes that raw materials and component parts other than certain specialty products are available from alternative sources.

Our suppliers of raw materials and component parts may significantly and quickly increase their prices in response to increases in costs of the raw materials, such as steel, that they use to manufacture our raw materials and component parts. While we generally attempt to pass along increased raw material prices to our customers in the form of price increases, there may be a time delay between the increased raw material prices and our ability to increase the price of our products, or we may be unable to increase the prices of our products due to various factors. See the discussion of risks associated with raw material supply and costs in Item 1A "Risk Factors".

Compliance with Government Regulations

We are subject to numerous federal, state and local laws and regulations designed to protect public health and the environment, particularly with regard to discharges and emissions, as well as handling, storage, treatment and disposal of various substances and wastes. Failure to comply with applicable environmental laws and regulations and permit requirements could result in civil and criminal fines or penalties or enforcement actions, including regulatory or judicial orders enjoining or curtailing operations or requiring corrective measures. Pursuant to certain environmental laws, owners or operators of facilities may be liable for the costs of response or other corrective actions for contamination identified at or emanating from current or former locations, without regard to whether the owner or operator knew of, or was responsible for, the presence of any such contamination, and for related damages to natural resources. Additionally, persons who arrange for the disposal or treatment of hazardous substances or materials may be liable for costs of response at sites where they are located, whether or not the site is owned or operated by such person.

From time to time, we have incurred, and are presently incurring, costs and obligations for correcting environmental noncompliance and remediating environmental conditions at certain of our properties. In general, we have not experienced difficulty in complying with environmental laws in the past, and compliance with environmental laws has not had a material adverse effect on our financial condition, liquidity and results of operations. Our capital expenditures on environmental control facilities were not material during the past five years and such expenditures are not expected to be material to us in the foreseeable future.

We are currently, and may in the future be, required to incur costs relating to the investigation or remediation of property, including property where we have disposed of our waste, and for addressing environmental conditions. For instance, we have been identified as a potentially responsible party at third-party sites under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, or comparable state laws, which provide for strict and, under certain circumstances, joint and several liability. We are participating in the cost of certain clean-up efforts at several of these sites. The availability of third-party payments or insurance for environmental remediation activities is subject to risks associated with the willingness and ability of the third party to make payments. However, our share of such costs has not been material and, based on available information, we do not expect our exposure at any of these locations to have a material adverse effect on our results of operations, liquidity or financial condition.

In addition to environmental laws and regulations, our operations are governed by a variety of laws and regulations, including those relating to workplace safety and worker health, principally the Occupational Safety and Health Act and regulations thereunder. We believe that we are in material compliance with these laws and regulations and do not believe that future compliance with such laws and regulations will have a material adverse effect on our business, financial condition, results of operations and cash flows.

Human Capital Resources

As of December 31, 2022, we employed approximately 7,100 employees, including our Aluminum Products business, in our operations around the world. Approximately 3,400 of these employees are in the United States, while the remaining 3,700 are employed in other countries. Approximately 28% of our employees are covered by a collective bargaining agreement.

The attraction, retention and development of employees is critical to the successful execution of the Company's strategy. The Company works diligently to attract the best talent from a diverse range of resources to meet current and future demands of our businesses. Hiring the right people for the long-term and developing them for future roles is an important process across the overall organization. To support these objectives, the Company's human resource programs are designed to develop, reward and support employees through competitive compensation, internal advancement, comprehensive flexible benefit programs and a safe and healthy work environment.

Key areas of focus include:

Health & Safety: The success of our business is fundamentally connected to the well-being of our employees; accordingly, we are committed to their health, safety, and wellness. Our global health and safety programs are designed around dedicated environmental, health and safety standards and procedures specifically tailored at the facility level to address different jurisdiction and regulations, specific operating hazards, and unique working environments. The Company's objectives include a focus on regulatory compliance and protection of people and the environment.

Ethics & Compliance: Our Company is committed to values of honesty, integrity, respect and responsibility that foster high ethical standards in our relationships with each other, our customers and suppliers, and all those we do business with. Our Code of Business Conduct and Ethics (the "Code"), along with the policies and procedures referenced in the Code, provide guidance for all employees on topics such as anti-corruption and bribery, anti-trust and competition law, discrimination including our policy on harassment and retaliation, privacy, appropriate use of company assets, protection of confidential information and reporting concerns and violations. Should potential violations of the Code, our policies and procedures, or the law occur, employees are encouraged to notify our Chief Compliance Officer through our Ethics Hotline. We do not tolerate retaliation against anyone who reports a potential violation in good faith. The Chief Compliance Officer reports matters related to the Code to the Audit Committee of the Board of Directors on a quarterly basis.

Compensation & Benefits: Our policy is to competitively compensate our employees. The compensation philosophy is to align both short-term and long-term incentives with our strategic objectives and to consider market forces and the performance of our Company and the employee. We offer comprehensive employee benefits that vary by country and are competitive in the marketplace. Examples of benefits offered in the U.S. include a 401(k) plan, defined benefit - cash balance plan, comprehensive health benefits, employee assistance programs, business travel, life/disability insurance and supplemental voluntary insurance.

Training & Talent Development: The Company is committed to continued development of our workforce. Training is provided in several formats to accommodate workforce diversity and business focus. In addition, various internship programs and informal mentoring demonstrate the Company's ongoing commitment and initiatives toward accelerating our future leaders.

Available Information

We file Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements and other information with the Securities and Exchange Commission ("SEC"). The public can obtain copies of these materials by accessing the SEC's website at http://www.sec.gov. In addition, as soon as reasonably practicable after such materials are filed with or furnished to the SEC, we make such materials available on our website free of charge at http://www.pkoh.com. The information on our website is not a part of this Annual Report on Form 10-K.

Information About our Executive Officers

Information with respect to our executive officers as of March 16, 2023, is as follows:

Name	Age	Position
Matthew V. Crawford	53	Chairman of the Board, Chief Executive Officer and President
Patrick W. Fogarty	61	Vice President and Chief Financial Officer
Robert D. Vilsack	62	Chief Legal and Administrative Officer, Corporate Secretary

Mr. Crawford was elected President in 2019 and Chairman of the Board and Chief Executive Officer in 2018. Prior to that, he served as President and Chief Operating Officer from 2003 to 2018. Mr. Crawford became one of our directors in August 1997 and has served as President of Crawford Group, Inc. since 1995.

Mr. Fogarty has been Vice President and Chief Financial Officer since 2015. Prior to that, Mr. Fogarty was Director of Corporate Development since 1997 and served as Director of Finance from 1995 to 1997.

Mr. Vilsack has been Secretary and Chief Legal Officer since joining us in 2002 and has served as Chief Administration Officer since 2020.

Item 1A. ***Risk Factors***

The following risk factors set forth below and elsewhere in this Form 10-K could materially and adversely affect our business, results of operations and financial condition. These risks are not the only ones we may face. Although the risks are organized by headings, and each risk is discussed separately, many are interrelated. You should not interpret the disclosure of any risk factor to imply that the risk has not already materialized. If any of the following risks occur, our business, results of operations or financial condition could be adversely affected.

Risks Relating to the Economic Conditions

The industries in which we operate are cyclical and are affected by the economy in general.

We sell products to customers in industries that experience cyclicality (expectancy of recurring periods of economic growth and slowdown) in demand for products and may experience substantial increases and decreases in business volume throughout economic cycles. Industries we serve, including the automotive and vehicle parts, heavy-duty truck, industrial equipment, steel, rail, oil and gas, electrical distribution and controls, aerospace and defense, recreational equipment, HVAC, electrical components, appliance and semiconductor equipment industries, are affected by consumer spending, general economic conditions and the impact of international trade, which have been adversely affected by the COVID-19 pandemic as well as inflation. A downturn in any of the industries we serve could have a material adverse effect on our financial condition, liquidity and results of operations.

Our business, results of operations and cash flows have been and may continue to be adversely affected by COVID-19.

To date, the COVID-19 pandemic has had an adverse impact on our business, including how it has impacted our customers, employees, supply chain and distribution network. The impact of the COVID-19 pandemic and uncertainty with respect to the economic effects of the pandemic introduced significant volatility in the financial markets and has had a widespread adverse effect on the industries in which we operate. The COVID-19 pandemic could continue to negatively impact our business, results of operations, financial position or cash flows in a number of ways, including but not limited to:

- disruptions in our supply chain due to the global semiconductor micro-chip shortage, logistics issues, labor disruptions and our ability to obtain raw materials, among other factors;
- increases in raw material and freight costs;
- labor shortages;
- disruptions to our facilities, including shutdowns or slowdowns as a result of facility closures, reductions in operating hours and labor shortages;
- the inability of a significant portion of our workforce to work as a result of illness or government restrictions;
- exposure to cybersecurity threats and other risks associated with a large number of our employees working remotely; and
- the need to reduce our workforce as a result of declines in our business caused by the COVID-19 pandemic, which has caused us, and may continue to cause us, to incur significant expenses.

The extent to which our business, results of operations, financial position or cash flows may ultimately be adversely impacted by the COVID-19 pandemic are highly uncertain and cannot be accurately predicted. The impact of the COVID-19 pandemic may also exacerbate other risks discussed herein, any of which could have a material effect on us.

Adverse credit market conditions may significantly affect our access to capital, cost of capital and ability to meet liquidity needs.

Disruptions, uncertainty or volatility in the credit markets, including as a result of a recession, may adversely impact our ability to access credit already arranged and the availability and cost of credit to us in the future. These market conditions may limit our ability to replace, in a timely manner, maturing liabilities and access the capital necessary to grow and maintain our business. Accordingly, we may be forced to delay raising capital or pay unattractive interest rates, which could increase our interest expense, decrease our profitability and significantly reduce our financial flexibility. Longer-term disruptions in the capital and credit markets as a result of uncertainty, changing or increased regulation, reduced alternatives or failures of significant financial institutions could adversely affect our access to liquidity needed for our business. Any disruption could require us to take measures to conserve cash until the markets stabilize or until alternative credit arrangements or other funding for our business needs can be arranged. Such measures could include deferring capital expenditures and reducing or eliminating future share repurchases or other discretionary uses of cash. Overall, our results of operations, financial condition and cash flows could be materially adversely affected by disruptions in the credit markets.

Adverse global economic conditions may have significant effects on our customers and suppliers that could result in material adverse effects on our business and operating results.

Significant reductions in available capital and liquidity from banks and other providers of credit, substantial reductions and fluctuations in equity and currency values worldwide, volatility in commodity prices for such items as crude oil, and concerns that the worldwide economy may enter into a prolonged recessionary period, may materially adversely affect our customers' access to capital or willingness to spend capital on our products or their ability to pay for products that they will order or have already ordered from us. In addition, unfavorable global economic conditions may materially adversely affect our suppliers' access to capital and liquidity with which they maintain their inventories, production levels and product quality, which could cause them to raise prices or lower production levels.

These potential effects of adverse global economic conditions are difficult to forecast and mitigate. As a consequence, our operating results for a particular period are difficult to predict, and, therefore, prior results are not necessarily indicative of results to be expected in future periods. Any of the foregoing effects could have a material adverse effect on our business, results of operations and financial condition.

Inflation may continue to have a significant effect on labor and raw material costs, which could continue to result in material adverse effects on our business and operating results.

Given recent inflationary trends and forecasts for rising inflation rates in the future, we expect further raw material price increases and higher labor costs, which may continue to adversely affect our business and operating results, particularly in the Assembly Components segment.

Risks Relating to Our Business and Operations

Because a significant portion of our sales is to the automotive and heavy-duty truck industries, a decrease in the demand of these industries or the loss of any of our major customers in these industries could adversely affect our financial health.

Demand for certain of our products is affected by, among other things, the relative strength or weakness of the automotive and heavy-duty truck industries. The global semiconductor micro-chip shortage, in particular, could continue to adversely affect a significant portion of our sales to our automotive and heavy-duty truck customers. The domestic automotive and heavy-duty truck industries are also highly cyclical and may be adversely affected by international competition. In addition, the automotive and heavy-duty truck industries are significantly unionized and subject to work slowdowns and stoppages resulting from labor disputes. We derived 32% and 6% of our net sales during the year ended December 31, 2022 from the automotive and heavy-duty truck industries, respectively.

The loss of a portion of business to any of our major automotive or heavy-duty truck customers could continue to have a material adverse effect on our financial condition, cash flow and results of operations. We cannot assure you that we will maintain or improve our relationships in these industries or that we will continue to supply these customers at current levels.

Our Supply Technologies customers are generally not contractually obligated to purchase products and services from us.

We supply products and services to our Supply Technologies customers generally under purchase orders as opposed to long-term contracts. When we do enter into long-term contracts with our Supply Technologies customers, many of them only establish pricing terms and do not obligate our customers to buy required minimum amounts from us or to buy from us exclusively. Accordingly, many of our Supply Technologies customers may decrease the number of products and services that they purchase from us or even stop purchasing from us altogether, either of which could have a material adverse effect on our net sales and profitability.

We are dependent on key customers.

We rely on several key customers. For the year ended December 31, 2022, our ten largest customers accounted for approximately 27% of our net sales. Many of our customers place orders for products on an as-needed basis and operate in cyclical industries and, as a result, their order levels have varied from period to period in the past and may vary significantly in the future. Due to competitive issues, we have lost key customers in the past and may again in the future. Customer orders are dependent upon their markets and may be subject to delays or cancellations. As a result of dependence on our key customers, we could experience a material adverse effect on our business and results of operations if any of the following were to occur:

- the loss of any key customer, in whole or in part;
- the insolvency or bankruptcy of any key customer;

- a declining market in which customers reduce orders or demand reduced prices; or
- a strike or work stoppage at a key customer facility, which could affect both their suppliers and customers.

If any of our key customers become insolvent or file for bankruptcy, our ability to recover accounts receivable from that customer would be adversely affected and any payments we received in the preference period prior to a bankruptcy filing may be potentially forfeitable, which could adversely impact our results of operations.

We operate in highly competitive industries.

The markets in which all three of our segments sell their products are highly competitive. Some of our competitors are large companies that have greater financial resources than we have. We believe that the principal competitive factors for our Supply Technologies segment are an approach reflecting long-term business partnership and reliability, sourced product quality and conformity to customer specifications, timeliness of delivery, price and design and engineering capabilities. We believe that the principal competitive factors for our Assembly Components and Engineered Products segments are product quality and conformity to customer specifications, design and engineering capabilities, product development, timeliness of delivery and price. The rapidly evolving nature of the markets in which we compete may attract new entrants as they perceive opportunities, and our competitors may foresee the course of market development more accurately than we do. In addition, our competitors may develop products that are superior to our products or may adapt more quickly than we do to new technologies or evolving customer requirements.

We expect competitive pressures in our markets to remain strong. These pressures arise from existing competitors, other companies that may enter our existing or future markets and, in some cases, our customers, which may decide to internally produce items we sell. We cannot assure you that we will be able to compete successfully with our competitors. Failure to compete successfully could have a material adverse effect on our financial condition, liquidity and results of operations.

Our Supply Technologies business depends upon third parties for substantially all of our component parts.

Our Supply Technologies business purchases substantially all of its component parts from third-party suppliers and manufacturers. As such, it is subject to the risk of price fluctuations and periodic delays in the delivery of component parts. Failure by suppliers to continue to supply us with these component parts on commercially reasonable terms, or at all, could have a material adverse effect on us. We depend upon the ability of these suppliers, among other things, to meet stringent performance and quality specifications and to conform to delivery schedules. Failure by third-party suppliers to comply with these and other requirements could have a material adverse effect on our financial condition, liquidity and results of operations.

The raw materials used in our production processes and by our suppliers of component parts are subject to price and supply fluctuations that could continue to increase our costs of production and adversely affect our results of operations.

Our supply of raw materials for our Assembly Components and Engineered Products businesses could continue to be interrupted for a variety of reasons, including supply chain constraints and price increases, raw material price inflation, supplier delays that increase lead times and higher freight costs, among other factors, may continue to have an adverse effect on our results of operations and profit margins. While we generally attempt to pass along increased raw materials prices to our customers in the form of price increases, there may be a time delay between the increased raw materials prices and our ability to increase the price of our products, or we may be unable to increase the prices of our products due various factors.

Our suppliers of component parts, particularly in our Supply Technologies business, may continue to significantly and quickly increase their prices in response to increases in costs of the raw materials, such as steel, that they use to manufacture our component parts. We may not be able to increase our prices commensurate with our increased costs. Consequently, our results of operations and financial condition may be materially adversely affected.

The energy costs involved in our production processes and transportation are subject to fluctuations that are beyond our control and could significantly increase our costs of production.

Our manufacturing process and the transportation of raw materials, components and finished goods are energy intensive. Our manufacturing processes are dependent on adequate supplies of electricity and natural gas. A substantial increase in the cost of transportation fuel, natural gas or electricity could have a material adverse effect on our margins. We may experience higher than anticipated gas costs in the future, which could adversely affect our results of operations. In addition, a disruption or curtailment in supply could have a material adverse effect on our production and sales levels.

We may experience breaches of, or disruptions to, our information technology systems, or other compromises of our data, including the improper disclosure of personal or confidential data, which may adversely affect our operations and reputation.

We utilize information technology systems in connection with our business operations, including processing orders, managing inventory and accounts receivable collections, purchasing products, maintaining cost-effective operations, routing and re-routing orders. We also depend on our information technology systems to maintain confidential, proprietary and personal information relating to our current, former and prospective employees, customers and other third parties in these systems and in systems of third-party providers who we engage in connection with the processing and storage of certain information. Our information technology systems and those of our third-party providers are subject to disruptions or damage, which may be caused by a wide array of causes, including telecommunications failures, computer failures, power outages, computer viruses, cybersecurity breaches and other intrusions, which could result in the disruption of our operations, or information misappropriation, such as theft of intellectual property or inappropriate disclosure of personal and confidential information. In addition, we could also experience data or cybersecurity breaches stemming from the intentional or negligent acts of our employees or other third parties. To the extent our information technology systems are disabled for a long period of time, key business processes could be interrupted. Any such operational disruptions and/or misappropriation of information, whether in systems we maintain or are maintained by others, could have a material adverse effect on our business. In addition, any such damage, compromise or breach to our systems or those of our vendors, could result in a violation of privacy and other laws, and expose us to significant legal and financial liability.

Operating problems in our business may materially adversely affect our financial condition and results of operations.

We are subject to the usual hazards associated with manufacturing and the related storage and transportation of raw materials, products and waste, including explosions, fires, leaks, discharges, inclement weather (including that caused by climate change), natural disasters, mechanical failure, unscheduled downtime and transportation interruption or calamities. The occurrence of material operating problems at our facilities may have a material adverse effect on our operations as a whole, both during and after the period of operational difficulties.

We have a significant amount of goodwill, and any future goodwill impairment charges could adversely impact our results of operations.

As of December 31, 2022, we had goodwill of $108.9 million. The future occurrence of a potential indicator of impairment, such as a significant adverse change in legal factors or business climate, unanticipated competition, a material negative change in relationships with significant customers, strategic decisions made in response to economic or competitive conditions, loss of key personnel or a more-likely-than-not expectation that a reporting unit or a significant portion of a reporting unit will be sold or disposed of, could result in goodwill impairment charges, which could adversely impact our results of operations. For additional information, see Note 7, Goodwill, to the consolidated financial statements included elsewhere herein.

Our business and operating results may be adversely affected by natural disasters, other catastrophic events or public health issues, all of which are beyond our control.

While we have taken precautions to prevent production and service interruptions at our global facilities, severe weather conditions and other conditions, including those that may be caused by climate change, such as hurricanes, tornadoes, and earthquakes; other natural disasters; or public health issues in areas in which we have manufacturing facilities or from which we obtain products may cause physical damage to our properties, closure of one or more of our business facilities, lack of adequate work force in a market, temporary disruption in the supply of inventory, disruption in the transport of products and utilities, or delays in the delivery of products to our customers. Any of these factors may disrupt our operations and adversely affect our financial condition and results of operations.

The insurance that we maintain may not fully cover all potential expenses.

We maintain property, business interruption and casualty insurance, but such insurance may not cover all risks associated with the hazards of our business and is subject to limitation, including deductible and maximum liabilities covered. We are potentially at risk if one or more of our insurance carriers fail. Additionally, severe disruptions in the domestic and global financial markets could adversely impact the ratings and survival of some insurers. In the future, we may not be able to obtain coverage at current levels, and our premiums may increase significantly on coverage that we maintain.

Risks Relating to Human Capital

Some of our employees belong to labor unions, and strikes or work stoppages could adversely affect our operations.

As of December 31, 2022, we were a party to seven collective bargaining agreements with various labor unions that covered approximately 2,000 full-time employees. Our inability to negotiate acceptable contracts with these unions could result in, among other things, strikes, work stoppages or other slowdowns by the affected workers and increased operating costs as a result of higher wages or benefits paid to union members. If the unionized workers were to engage in a strike, work stoppage or other slowdown, or other employees were to become unionized, we could experience a significant disruption of our operations and higher ongoing labor costs, which could have a material adverse effect on our business, financial condition and results of operations.

Labor shortages could continue to adversely affect our business, results of operations and financial condition.

Labor shortages leading to higher labor costs, production inefficiencies and plant downtime have had and could continue to have an adverse effect on our business, results of operations and financial condition. In addition, we have seen a decline in the skilled labor applicant pool since the start of the COVID-19 pandemic and increased competition for skilled labor. In addition, labor disturbances affecting our customers could continue to impact our sales to certain key customers, particularly in the automotive and heavy-duty truck industries, which could continue to have an adverse effect on our business, results of operations and financial condition.

The loss of key executives could adversely impact us.

Our success depends upon the efforts, abilities and expertise of our executive officers and other senior managers, including Matthew Crawford, our Chairman, Chief Executive Officer and President, as well as the president of each of our operating units. Additionally, an event of default occurs under our revolving credit facility if Messrs. M. Crawford and Edward Crawford, our former President, or certain of their related parties own in the aggregate less than 15% of Holdings' outstanding common stock and, if at such time, neither Mr. M. Crawford nor Mr. E. Crawford holds the office of chairman, chief executive officer or president. The loss of the services of Mr. M. Crawford, senior and executive officers, and/or other key individuals could have a material adverse effect on our financial condition, liquidity and results of operations.

Risks Relating to Legal, Compliance and Regulatory Matters

Potential product liability risks exist from the products that we sell.

Our businesses expose us to potential product liability risks that are inherent in the design, manufacture and sale of our products and products of third-party vendors that we use or resell. While we currently maintain what we believe to be suitable and adequate product liability insurance, we cannot assure you that we will be able to maintain our insurance on acceptable terms or that our insurance will provide adequate protection against potential liabilities. In the event of a claim against us, a lack of sufficient insurance coverage could have a material adverse effect on our financial condition, liquidity and results of operations. Moreover, even if we maintain adequate insurance, any successful claim could have a material adverse effect on our financial condition, liquidity and results of operations.

We operate and source internationally, which exposes us to the risks of doing business abroad.

Our operations are subject to the risks of doing business abroad, including the following:

- fluctuations in currency exchange rates;
- limitations on ownership and on repatriation of earnings;
- transportation delays and interruptions;
- political, social and economic instability and disruptions, including the conflict between Russia and Ukraine and the rising tension between China and the United States;
- potential disruption that could be caused by the partial or complete reconfiguration of the European Union;
- government embargoes or foreign 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;
- disadvantages of competing against companies from countries that are not subject to U.S. laws and regulations, including the U.S. Foreign Corrupt Practices Act ("FCPA");
- increasingly complex laws and regulations concerning privacy and data security, including the European Union's General Data Protection Regulation;

- difficulties in staffing and managing multinational operations;
- limitations on our ability to enforce legal rights and remedies; and
- potentially adverse tax consequences.

On January 31, 2020, the United Kingdom ("UK") exited ("Brexit") the European Union ("EU"). The transition period post-Brexit expired on December 31, 2020, and the UK and the EU entered into a free trade agreement that now governs the UK's relationship with the EU. While the UK and the EU can generally continue to trade with each other without the imposition of tariffs for imports and exports, there are new customs requirements that require additional documentation and data, and there are also new controls on the movement and reporting of goods. Although we have not experienced any material disruption in our business as a result of Brexit, we do not know the extent to which Brexit and the free trade agreement will ultimately impact the business and regulatory environment in the UK, the rest of the EU or other countries, although it is possible there will be tighter controls and administrative requirements for imports and exports between the UK and the EU or other countries, as well as increased regulatory complexities. Any of these factors could adversely impact customer demand, our relationships with customers and suppliers and our results of operations.

We are also exposed to risks relating to U.S. policy with respect to companies doing business in foreign jurisdictions. Changes in tax policy, trade regulations or trade agreements, such as the disallowance of tax deductions on imported merchandise or the imposition of new tariffs on imported products, could have a material adverse effect on our business and results of operations.

Our international sales and operations are also sensitive to changes in foreign national priorities, as well as to political and economic instability. For example, our business in the European Union or elsewhere may be impacted by the conflict between Russia and Ukraine and any economic or trade sanctions enacted to condemn or counteract any Russian aggression towards or invasion of Ukraine. Any such conflict may also impact our ability to secure raw materials and exacerbate the supply chain disruption we have experienced and further limit our ability to secure certain raw materials or services. Further military action or cyberattacks by Russia to counteract any sanctions may have an impact on demand for our goods and services and adversely impact our results of operation. Our success as a global business will depend, in part, upon our ability to succeed in differing legal, regulatory, economic, social and political conditions by developing, implementing and maintaining policies and strategies that are effective in each location where we do business.

In addition, we could be adversely affected by violations of the FCPA and similar worldwide anti-bribery laws. The FCPA and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business. Our policies mandate compliance with these anti-bribery laws. We operate in many parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. We cannot assure you that our internal controls and procedures always will protect us from the reckless or criminal acts committed by our employees or agents. For example, in connection with responding to a subpoena from the staff of the SEC, regarding a third party, we disclosed to the staff that the third party participated in a payment on our behalf to a foreign tax official that implicates the FCPA. If we are found to be liable for FCPA violations (either due to our own acts or our inadvertence or due to the acts or inadvertence of others), we could suffer from criminal or civil penalties or other sanctions, which could have a material adverse effect on our business.

Any of the events enumerated above could have an adverse effect on our operations in the future by reducing the demand for our products and services, decreasing the prices at which we can sell our products or otherwise having an adverse effect on our business, financial condition or results of operations. We cannot assure you that we will continue to operate in compliance with applicable customs, currency exchange control regulations, transfer pricing regulations or any other laws or regulations to which we may be subject. We also cannot assure you that these laws will not be modified.

We are subject to significant environmental, health and safety laws and regulations and related compliance expenditures and liabilities.

Our businesses are subject to many foreign, federal, state and local environmental, health and safety laws and regulations, particularly with respect to the use, handling, treatment, storage, discharge and disposal of substances and hazardous wastes used or generated in our manufacturing processes. Compliance with these laws and regulations is a significant factor in our business. We have incurred and expect to continue to incur significant expenditures to comply with applicable environmental laws and regulations. Our failure to comply with applicable environmental laws and regulations and permit requirements could result in civil or criminal fines or penalties or enforcement actions, including regulatory or judicial orders enjoining or curtailing operations or requiring corrective measures, installation of pollution control equipment or remedial actions.

We are currently, and may in the future be, required to incur costs relating to the investigation or remediation of property, including property where we have disposed of our waste, and for addressing environmental conditions. Some environmental laws and regulations impose liability and responsibility on present and former owners, operators or users of facilities and sites for contamination at such facilities and sites without regard to causation or knowledge of contamination. In addition, we occasionally evaluate various alternatives with respect to our facilities, including possible dispositions or closures. Investigations undertaken in connection with these activities may lead to discoveries of contamination that must be remediated, and closures of facilities may trigger compliance requirements that are not applicable to operating facilities. Consequently, we cannot assure you that existing or future circumstances, the development of new facts or the failure of third parties to address contamination at current or former facilities or properties will not require significant expenditures by us.

We expect to continue to be subject to increasingly stringent environmental and health and safety laws and regulations. It is difficult to predict the future interpretation and development of environmental and health and safety laws and regulations or their impact on our future earnings and operations. We anticipate that compliance will continue to require increased capital expenditures and operating costs. Any increase in these costs, or unanticipated liabilities arising from, among other things, discovery of previously unknown conditions or more aggressive enforcement actions, could adversely affect our results of operations, and there is no assurance that they will not exceed our reserves or have a material adverse effect on our financial condition.

We may be exposed to certain regulatory and financial risks related to climate change.

Growing concerns about climate change may result in the imposition of additional regulations or restrictions to which we may become subject. A number of governments or governmental bodies have introduced or are contemplating regulatory changes in response to climate change, including regulating greenhouse gas emissions. The outcome of new legislation or regulation in the U.S. and other jurisdictions in which we operate may result in new or additional requirements, additional charges to fund energy efficiency activities, and fees or restrictions on certain activities. Compliance with these climate change initiatives may also result in additional costs to us, including, among other things, increased production costs, additional taxes, reduced emission allowances or additional restrictions on production or operations. Any adopted future climate change regulations could also negatively impact our ability to compete with companies situated in areas not subject to such limitations. Even without such regulation, increased public awareness and adverse publicity about potential impacts on climate change emanating from us or our industry could harm us. We may not be able to recover the cost of compliance with new or more stringent laws and regulations, which could adversely affect our results of operations, financial position or cash flows.

Risks Relating to Our Debt

Adverse global economic conditions may have significant effects on our customers that would result in our inability to borrow or to meet our debt service coverage ratio in our revolving credit facility.

As of December 31, 2022, we were in compliance with our debt service coverage ratio covenant and other covenants contained in our revolving credit facility. While we expect to remain in compliance throughout 2023, declines in demand in the automotive industry and in sales volumes could adversely impact our ability to remain in compliance with certain of these financial covenants. Additionally, to the extent our customers are adversely affected by a decline in the economy in general, they may not be able to pay their accounts payable to us on a timely basis or at all, which would make the accounts receivable ineligible for purposes of the revolving credit facility and could reduce our borrowing base and our ability to borrow.

Risks Relating to the Execution of our Strategy

We may encounter difficulty in expanding our business through targeted acquisitions.

We have pursued, and may continue to pursue, targeted acquisition opportunities that we believe would complement our business. We cannot assure you that we will be successful in consummating any acquisitions.

Any targeted acquisitions will be accompanied by the risks commonly encountered in acquisitions of businesses. We may not successfully overcome these risks or any other problems encountered in connection with any of our acquisitions, including the possible inability to integrate an acquired business' operations, information technology, services and products into our business; diversion of management's attention; the assumption of unknown liabilities; increases in our indebtedness; the failure to achieve the strategic objectives of those acquisitions; and other unanticipated problems, some or all of which could materially and adversely affect us. The process of integrating operations could cause an interruption of, or loss of momentum in, our activities. Any delays or difficulties encountered in connection with any acquisition and the integration of our operations could have a material adverse effect on our business, results of operations, financial condition or prospects of our business.

We may be unable to sell our Aluminum Products business.

We are pursuing a sale of our Aluminum Products business. On December 30, 2022, the Company entered into the MOU with a third party pursuant to which the third party would purchase our Aluminum Products business. The sale of the Aluminum Products business is subject to the successful completion of a definitive purchase agreement and other customary conditions. Accordingly, there can be no assurance that the sale of the Aluminum Products business will be completed.

Risks Relating to Our Common Stock

Our Chairman of the Board, Chief Executive Officer and President and former President collectively beneficially own a significant portion of Holdings' outstanding common stock and their interests may conflict with yours.

As of December 31, 2022, Matthew Crawford, our Chairman of the Board, Chief Executive Officer and President, and Edward Crawford, our former President, collectively beneficially owned approximately 29% of Holdings' outstanding common stock. Mr. M. Crawford is Mr. E. Crawford's son. Their interests could conflict with your interests.

Item 1B. *Unresolved Staff Comments*

None.

Item 2. *Properties*

As of December 31, 2022, our operations included numerous manufacturing and supply chain logistics services facilities located in 28 states in the United States and in Puerto Rico, as well as in Asia, Canada, Europe, Mexico and Brazil. We lease our world headquarters located in Cleveland, Ohio, which also includes the world headquarters for certain of our businesses. We believe our manufacturing, logistics and corporate office facilities are well-maintained and are suitable and adequate, and they have sufficient productive capacity to meet our current needs.

The following table provides information relative to our principal facilities as of December 31, 2022.

Segment[1]	Location	Owned or Leased	Use
SUPPLY TECHNOLOGIES	Brampton, Ontario, Canada	Leased	Manufacturing
	Minneapolis, MN	Leased	Logistics
	Changzhou, China	Leased	Manufacturing
	Cleveland, OH	Leased	Supply Technologies Corporate Office
	Dayton, OH	Leased	Logistics
	Memphis, TN	Leased	Logistics
	Suwanee, GA	Leased	Logistics
	Streetsboro, OH	Leased	Manufacturing
	Allentown, PA	Leased	Logistics
	Carol Stream, IL	Leased	Logistics
	Solon, OH	Leased	Logistics
	Dublin, VA	Leased	Logistics
	Tulsa, OK	Leased	Logistics
	Winston-Salem, NC	Leased	Logistics and Office
ASSEMBLY COMPONENTS	Ocala, FL	Owned	Manufacturing
	Acuna, Mexico	Leased	Manufacturing
	Lexington, TN	Owned	Manufacturing
	Angola, IN	Owned	Manufacturing
ENGINEERED PRODUCTS	Cuyahoga Heights, OH	Owned	Manufacturing
	Canton, OH [2]	Owned/Leased	Manufacturing
	Newport, AR	Owned	Manufacturing
	Warren, OH	Owned	Manufacturing
	Erie, PA	Owned	Manufacturing
	La Roeulx, Belgium	Owned	Manufacturing
	Brookfield, WI	Leased	Manufacturing
	Madison Heights, MI	Leased	Manufacturing
	Leini, Italy	Owned	Manufacturing
	Pune, India	Owned	Manufacturing
	Chennai, India	Owned	Manufacturing
	Cortland, OH	Owned	Office and Manufacturing
	Valencia, Spain	Owned	Manufacturing

(1) Each segment has other facilities, none of which is deemed to be a principal facility.

Item 3. *Legal Proceedings*

We are involved in a variety of claims, suits, investigations and administrative proceedings with respect to commercial, premises liability, product liability, employment, personal injury and environmental matters arising from the ordinary course of business. While any such claims, suits, investigations and proceedings involve an element of uncertainty, in the opinion of management, liabilities, if any, arising from currently pending or threatened claims, suits, investigations and proceedings are not expected to have a material adverse effect on our financial condition, liquidity or results of operations.

In addition to the routine claims, suits, investigations and proceedings noted above, we were a party to the lawsuits and legal proceedings described below as of December 31, 2022:

We were a co-defendant in approximately 99 cases asserting claims on behalf of approximately 162 plaintiffs alleging personal injury as a result of exposure to asbestos. These asbestos cases generally relate to production and sale of asbestos-containing products and allege various theories of liability, including negligence, gross negligence and strict liability, and seek compensatory and, in some cases, punitive damages.

In every asbestos case in which we are named as a party, the complaints are filed against multiple named defendants. In substantially all of the asbestos cases, the plaintiffs either claim damages in excess of a specified amount, typically a minimum amount sufficient to establish jurisdiction of the court in which the case was filed (jurisdictional minimums generally range from $25,000 to $75,000), or do not specify the monetary damages sought. To the extent that any specific amount of damages is sought, the amount applies to claims against all named defendants.

There are four asbestos cases, involving 20 plaintiffs, that plead specified damages against named defendants. In each of the four cases, the plaintiff is seeking compensatory and punitive damages based on a variety of potentially alternative causes of action. In two cases, the plaintiff has alleged three counts at $3 million compensatory and punitive damages each; one count at $3 million compensatory and $1 million punitive damages; one count at $1 million. In the third case, the plaintiff has alleged compensatory and punitive damages, each in the amount of $20.0 million, for three separate causes of action, and $5.0 million compensatory damages for the fifth cause of action. In the fourth case, the plaintiff has alleged compensatory and punitive damages, each in the amount of $10.0 million, for ten separate causes of action.

Historically, we have been dismissed from asbestos cases on the basis that the plaintiff incorrectly sued one of our subsidiaries or because the plaintiff failed to identify any asbestos-containing product manufactured or sold by us or our subsidiaries. We intend to vigorously defend these asbestos cases and believe we will continue to be successful in being dismissed from such cases. However, it is not possible to predict the ultimate outcome of asbestos-related lawsuits, claims and proceedings due to the unpredictable nature of personal injury litigation. Despite this uncertainty, and although our results of operations and cash flows for a particular period could be adversely affected by asbestos-related lawsuits, claims and proceedings, management believes that the ultimate resolution of these matters will not have a material adverse effect on our financial condition, liquidity or results of operations. Among the factors management considered in reaching this conclusion were: (a) our historical success in being dismissed from these types of lawsuits on the bases mentioned above; (b) many cases have been improperly filed against one of our subsidiaries; (c) in many cases the plaintiffs have been unable to establish any causal relationship to us or our products or premises; (d) in many cases, the plaintiffs have been unable to demonstrate that they have suffered any identifiable injury or compensable loss at all or that any injuries that they have incurred did in fact result from alleged exposure to asbestos; and (e) the complaints assert claims against multiple defendants and, in most cases, the damages alleged are not attributed to individual defendants. Additionally, we do not believe that the amounts claimed in any of the asbestos cases are meaningful indicators of our potential exposure because the amounts claimed typically bear no relation to the extent of the plaintiff's injury, if any.

Our cost of defending these lawsuits has not been material to date and, based upon available information, our management does not expect its future costs for asbestos-related lawsuits to have a material adverse effect on our results of operations, liquidity or financial position.

Item 4. *Mine Safety Disclosures*

Not applicable.

PART II

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

Our common stock, par value $1.00 per share, trades on the Nasdaq Global Select Market under the symbol "PKOH".

The number of shareholders of record of our common stock as of February 28, 2023 was 382.

Issuer Purchases of Equity Securities

Set forth below is information regarding repurchases of our common stock during the fourth quarter of the year ended December 31, 2022.

Period	Total Number of Shares Purchased (1)	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans	Maximum Number of Shares That May Yet Be Purchased Under the Plans or Program (2)
October 1 — October 31, 2022	300	$11.31	—	444,424
November 1 — November 30, 2022	1,234	12.78	—	444,424
December 1 — December 31, 2022	17,516	13.31	—	444,424
Total	19,050	$13.25	—	444,424

(1) Consists of an aggregate total of 19,050 shares of common stock we acquired from recipients of restricted stock awards at the time of vesting of such awards in order to settle recipient minimum withholding tax liabilities.

(2) On March 11, 2020, we announced a share repurchase program whereby we may repurchase up to 1.0 million shares of our outstanding common stock. The repurchase program has no expiration date.

Item 6. ***[Reserved]***

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

Our consolidated financial statements include the accounts of Park-Ohio Holdings Corp. and its subsidiaries. All intercompany transactions have been eliminated in consolidation.

EXECUTIVE OVERVIEW

General

We are a diversified international company providing world-class customers with a supply chain management outsourcing service, capital equipment used on their production lines, and manufactured components used to assemble their products. We operate through three reportable segments: Supply Technologies, Assembly Components and Engineered Products. Refer to Part 1, Item 1. Business for descriptions of our business segments.

During the fourth quarter of 2022, we determined that our Aluminum Products business met the held-for-sale and discontinued operations accounting criteria. Accordingly, the Company has reported the held-for-sale assets and liabilities, the operating results and the cash flows of Aluminum Products in discontinued operations for all periods presented throughout this Annual Report on Form 10-K. Unless otherwise indicated, amounts and activity in this Annual Report are presented on a continuing operations basis. See Note 4, "Discontinued Operations," in the Notes to Consolidated Financial Statements for further information. On December 30, 2022, we entered into a memorandum of understanding (the "MOU") with a third party pursuant to which the third party would purchase our Aluminum Products business. The sale of the Aluminum Products business is subject to the entry into a definitive purchase agreement and other customary conditions.

Subsequent Event

On January 27, 2023, the Company's Board of Directors declared a quarterly dividend of $0.125 per common share. The dividend was paid on February 24, 2023, to shareholders of record as of the close of business on February 10, 2023 and resulted in cash payments of $1.6 million.

RESULTS FROM CONTINUING OPERATIONS

During the fourth quarter of 2022, we determined that our Aluminum Products business met the held-for-sale and discontinued operations accounting criteria. Accordingly, the Company has reported the held-for-sale assets and liabilities, the operating results and the cash flows of Aluminum Products in discontinued operations for all periods presented throughout this Annual Report on Form 10-K. Unless otherwise indicated, amounts and activity in this Annual Report are presented on a continuing operations basis. See Note 4, "Discontinued Operations," in the Notes to Consolidated Financial Statements for further information.

2022 Compared with 2021 and 2021 Compared with 2020

	2022	2021	2020	2022 vs. 2021 $ Change	2022 vs. 2021 % Change	2021 vs. 2020 $ Change	2021 vs. 2020 % Change
	(Dollars in millions, except per share data)						
Net sales	$ 1,492.9	$ 1,277.0	$ 1,152.1	$ 215.9	17%	$ 124.9	11%
Cost of sales	1,282.4	1,099.1	986.8	183.3	17%	112.3	11%
Selling, general and administrative ("SG&A") expenses	162.2	155.9	140.2	6.3	4%	15.7	11%
SG&A expenses as a percentage of net sales	10.9%	12.2%	12.2%				
Restructuring and other special charges	17.3	20.4	6.6	(3.1)	*	13.8	*
Gains on sales of assets, net	(2.4)	(14.7)	—	12.3	*	(14.7)	*
Operating income	33.4	16.3	18.5	17.1	105%	(2.2)	(12)%
Other components of pension income and other postretirement benefits expense, net	11.1	9.7	7.3	1.4	14%	2.4	33%
Interest expense, net	(33.8)	(27.1)	(27.6)	(6.7)	25%	0.5	(2)%
Income (loss) from continuing operations before income taxes	10.7	(1.1)	(1.8)	11.8	*	0.7	39%
Income tax benefit	0.7	1.0	1.3	(0.3)	*	(0.3)	*
Income (loss) from continuing operations	11.4	(0.1)	(0.5)	11.5	*	0.4	80%
(Income) loss attributable to noncontrolling interest	(1.3)	1.2	0.3	(2.5)	*	0.9	300%
Income (loss) from continuing operations attributable to ParkOhio common shareholders	$ 10.1	$ 1.1	$ (0.2)	$ 9.0	*	$ 1.3	650%
Earnings (loss) from continuing operations per common share attributable to ParkOhio common shareholders:							
Basic:							
Continuing operations	$ 0.83	$ 0.09	$ (0.02)	$ 0.74	*	$ 0.11	550%
Diluted:							
Continuing operations	$ 0.83	$ 0.09	$ (0.02)	$ 0.74	*	$ 0.11	550%

* Calculation not meaningful

2022 Compared with 2021

Net Sales

Net sales increased 17% to $1,492.9 million in 2022 compared to $1,277.0 million in 2021. This increase was primarily due to higher customer demand and increased net price realization in all three of our business segments.

The factors explaining the changes in segment net sales for the year ended December 31, 2022 compared to the year ended December 31, 2021 are contained in the "Segment Results" section below.

Cost of Sales

Cost of sales increased 17% to $1,282.4 million in 2022 compared to $1,099.1 million in 2021. The increase in cost of sales and decrease in gross margin were due to the increase in net sales described above.

SG&A Expenses

SG&A expenses increased to $162.2 million, or 10.9% of net sales, in 2022 from $155.9 million, or 12.2% of net sales, in 2021. The increase in SG&A expenses was primarily attributable to foreign exchange impacts of a weaker Euro and British Pound and higher personnel costs in 2022 compared to 2021. The improvement in SG&A expenses as a percentage of net sales was driven by the impact of fixed SG&A expenses over the higher revenue base in 2022 compared to 2021.

Restructuring and other special charges

During 2022, the Company recorded restructuring and other special charges of $17.3 million compared to $20.4 million in 2021. The charges in both 2022 and 2021 related primarily to plant closure and consolidation in the Company's Assembly Components and Engineered Products segments; other cost reduction initiatives in all three business segments; and costs related to acquisitions.

Gains on Sales of Assets, net

During 2022, in connection with its plant closure and consolidation initiatives, the Company sold assets within its Supply Technologies segment for cash proceeds of $1.5 million, resulting in a loss of $3.4 million; within its Assembly Components segment for cash proceeds of $4.4 million, resulting in a gain of $3.3 million; and within its Engineered Products segment for cash proceeds of $3.6 million, resulting in a gain of $2.5 million. The total net gain of $2.4 million was recorded on a separate line in the Consolidated Statements of Operations and was excluded from segment income.

During 2021, in connection with its plant closure and consolidation initiatives, the Company sold real estate within its Engineered Products segment for cash proceeds of $19.6 million, resulting in a gain of $14.2 million. In addition, the Company sold real estate within the Assembly Components segment for cash proceeds of $0.7 million, resulting in a gain of $0.5 million. The total net gain of $14.7 million was recorded on a separate line in the Consolidated Statements of Operations and was excluded from segment income.

Other Components of Pension Income and Other Postretirement Benefits ("OPEB") Expense, Net

Other components of pension income and OPEB expense, net was $11.1 million in 2022 compared to $9.7 million in 2021. The increase in 2022 was driven by higher returns on plan assets impacting 2022 compared to 2021.

Interest Expense, Net

Interest expense, net increased to $33.8 million in 2022 compared to $27.1 million in 2021. The increase was due to higher average interest rates and higher average outstanding borrowings in 2022 compared to 2021. The higher borrowings were used to fund higher working capital levels. Our average effective borrowing rate was 5.1% in 2022 compared to 4.8% in 2021.

Income Tax Benefit

Income tax benefit in 2022 was $0.7 million on pre-tax income of $10.7 million, driven by changes in estimates related to prior year federal research and development credits. Income tax benefit in 2021 was $1.0 million on pre-tax loss of $1.1 million, driven by the additional benefit recorded as a result of the net operating loss claimed under the Coronavirus Aid, Relief, and Economic Security ("CARES") Act.

<u>2021 Compared with 2020</u>

Net Sales

Net sales increased 11% to $1,277.0 million in 2021 compared to $1,152.1 million in 2020. This increase was primarily due to higher customer demand in our Supply Technologies and Assembly Components business segments, partially offset by lower demand in our Engineered Products segment.

The factors explaining the changes in segment net sales for the year ended December 31, 2021 compared to the year ended December 31, 2020 are contained in the "Segment Results" section below.

Cost of Sales

Cost of sales increased 11% to $1,099.1 million in 2021 compared to $986.8 million in 2020. The increase in cost of sales was due to the increase in net sales described above.

SG&A Expenses

SG&A expenses increased to $155.9 million, or 12.2% of net sales, in 2021 from $140.2 million, or 12.2% of net sales, in 2020. In response to significantly lower demand levels caused by the COVID-19 pandemic in 2020, the Company took immediate actions in many of its operations to reduce costs, including workforce furloughs, permanent headcount reductions, salary and incentive compensation reductions, and cuts in discretionary spending. As demand levels increased in 2021, a portion of the SG&A expense reduction from 2020 was restored to meet the increasing demand.

Restructuring and other special charges

During 2021, the Company recorded restructuring and other special charges of $20.4 million compared to $6.6 million in 2020. The charges in 2021 related primarily to plant closure and consolidation in the Company's Assembly Components and Engineered Products segments; other cost reduction initiatives in all three business segments; and costs related to acquisitions. The charges in 2020 related to initiatives the Company took in response to the COVID-19 pandemic and primarily consisted of plant consolidation and closure actions.

Gains on Sales of Assets, net

During 2021, in connection with the plant closure and consolidation initiatives, the Company sold real estate within the Engineered Products segment for cash proceeds of $19.6 million, resulting in a gain of $14.2 million. In addition, the Company sold real estate within the Assembly Components segment for cash proceeds of $0.7 million, resulting in a gain of $0.5 million. The total net gain of $14.7 million was recorded on a separate line in the Consolidated Statements of Operations and was excluded from segment income.

Other Components of Pension Income and OPEB Expense, Net

Other components of pension income and OPEB expense, net was $9.7 million in 2021 compared to $7.3 million in 2020. The increase in 2021 was driven by higher returns on plan assets impacting 2021 compared to 2020.

Interest Expense, Net

Interest expense, net decreased to $27.1 million in 2021 compared to $27.6 million in 2020. The decrease was due to lower average interest rates partially offset by higher average outstanding borrowings in 2021 compared to 2020. Our average effective borrowing rate was 4.8% in 2021 compared to 5.0% in 2020.

Income Tax Benefit

Income tax benefit in 2021 was $1.0 million on pre-tax loss of $1.1 million (effective rate of 91%). Income tax benefit in 2020 was $1.3 million on pre-tax loss of $1.8 million (effective rate of 72%). These effective rates are higher in both periods due to U.S tax loss planning and related net operating loss carrybacks to prior years under the CARES Act.

SEGMENT RESULTS

For purposes of measuring business segment performance, the Company utilizes segment operating income, which is defined as revenues less expenses identifiable to the product lines within each segment. The Company does not allocate items that are non-operating or unusual in nature or are corporate costs, which include but are not limited to executive and share-based compensation and corporate office costs. Segment operating income reconciles to consolidated income before income taxes by deducting corporate costs; certain non-cash and/or non-operating items; Other components of pension income and OPEB expense, net; and interest expense, net.

During the fourth quarter of 2022, we determined that our Aluminum Products business met the held-for-sale and discontinued operations accounting criteria. Accordingly, the Company has reported the held-for-sale assets and liabilities, the operating results and the cash flows of Aluminum Products in discontinued operations for all periods presented throughout this Annual Report on Form 10-K. Unless otherwise indicated, amounts and activity in this Annual Report are presented on a continuing operations basis. See Note 4, "Discontinued Operations," in the Notes to Consolidated Financial Statements for further information.

Supply Technologies Segment

	Year Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Net sales	$ 711.5	$ 619.5	$ 510.1
Segment operating income	$ 45.7	$ 42.8	$ 30.2
Segment operating income margin	6.4%	6.9%	5.9%

2022 Compared to 2021

Net sales increased 15% in 2022 compared to 2021 due primarily to higher customer demand in most of the Company's end markets, with the biggest increases in heavy-duty truck, power sports, industrial and agricultural equipment, semiconductor, and civilian aerospace markets, as well as the sales from our acquisitions in 2022.

Segment operating income increased by $2.9 million and segment operating income margin was down 50 basis points in 2022 compared to the prior year. The decrease in margin was driven primarily by higher supply chain costs, primarily freight-related, and sales mix.

2021 Compared to 2020

Net sales increased 21% in 2021 compared to 2020 due primarily to higher customer demand in most of the Company's end markets, with the biggest increases in heavy-duty truck, power sports, semiconductor, and agricultural and industrial equipment. As a result of the COVID-19 pandemic, customer demand in 2020 was down significantly in most of our key end markets.

Segment operating income increased by $12.6 million and segment operating income margin was up 100 basis points in 2021 compared to the prior year. These net increases were driven by the profit flow-through on higher sales, the impact of pricing initiatives and the impact of cost reduction actions. These positive factors were partially offset by higher freight costs in 2021 as a result of global supply chain constraints and a labor strike at a major truck assembly plant.

Assembly Components Segment

	Year Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Net sales	$ 388.8	$ 321.5	$ 298.4
Segment operating (loss) income	$ 1.1	$ (2.6)	$ 10.9
Segment operating (loss) income margin	0.3%	(0.8)%	3.7%

2022 Compared to 2021

Net sales increased 21% in 2022 compared to 2021. The sales increase was driven by higher customer demand driven by several products launched in 2021, increased net price realization and the pass-through of higher rubber compound prices in 2022. In addition, 2021 sales were negatively impacted by the global micro-chip shortage and supply chain disruptions in the auto industry.

Segment operating income in 2022 increased by $3.7 million, and segment operating income margin increased 110 basis points compared to 2021. The improvement in segment operating results in 2022 compared to the prior year was driven by profit flow-through from the higher sales levels, higher product pricing and the benefit of profit improvement initiatives, all of which more than offset the impacts of inflation and higher operating costs in 2022. In 2022, expenses incurred in connection with plant closure and consolidation, severance and other costs were $5.6 million. In 2021, expenses incurred in connection with plant closure and consolidation, severance, a legal settlement and other costs were $5.7 million.

2021 Compared to 2020

Net sales increased 8% in 2021 compared to 2020 due primarily to the shut-down of North American automotive production in the second quarter of 2020 as a result of the COVID-19 pandemic, partially offset the impact of the global micro-chip shortage, which negatively impacted net sales in 2021.

Segment operating loss in the 2021 period decreased by $13.5 million, and segment operating income margin decreased 450 basis points compared to 2020. The loss in 2021 was driven by the negative impacts of the global semiconductor micro-chip shortage; higher labor costs; production inefficiencies; and various supply chain constraints, including supplier delays that caused extended lead times and increasing freight costs. These factors were partially offset by the positive impact of higher sales in 2021. In 2021, expenses incurred in connection with plant closure and consolidation, severance, a legal settlement and other costs were $5.7 million. The 2020 income included expenses related to plant closure and consolidation of $4.1 million.

Engineered Products Segment

	Year Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Net sales	$ 392.6	$ 336.0	$ 343.6
Segment operating (loss) income	$ 14.8	$ (12.2)	$ 3.5
Segment operating (loss) income margin	3.8%	(3.6)%	1.0%

2022 Compared to 2021

Net sales were 17% higher in 2022 compared to 2021. The increase was driven by strong demand in both our capital equipment business and our forged and machined products business as key end markets continue to recover from COVID-19 pandemic lows.

Segment operating income was $14.8 million in 2022 compared to segment operating loss of $12.2 million in 2021. The profitability improvement in 2022 was driven by the higher sales levels, implemented operational improvements, and benefits of profit-improvement initiatives, including plant closure and consolidation. In 2022, expenses incurred in connection with plant closure and consolidation, severance, and other costs were $8.4 million, compared to $12.7 million in 2021.

2021 Compared to 2020

Net sales were 2% lower in 2021 compared to 2020. The decrease was due to lower demand in certain end markets in our forged and machined products business which continue to be slow to recover from the COVID-19 pandemic, partially offset by stronger demand in 2021 for our capital equipment products.

Segment operating loss was $12.2 million in 2021 compared to segment operating income of $3.5 million in 2020. This decrease in profitability was due to expenses of $12.7 million related to plant closure and consolidation activities and other actions in 2021, lower sales levels, and manufacturing under-absorption of fixed costs at certain plants. Expenses related to plant closure and consolidation in 2020 were $2.2 million.

Liquidity and Capital Resources

The following table summarizes the major components of cash flows:

	2022	2021	2020
Cash (used) provided by:		(In millions)	
Operating activities	$ (26.6)	$ (12.2)	$ 58.6
Investing activities	(40.7)	(7.4)	(18.9)
Financing activities	84.6	60.8	(44.8)
Discontinued operations	(9.2)	(40.8)	2.2
Effect of exchange rate on cash	(4.0)	(1.3)	1.9
Increase (decrease) in cash and cash equivalents	$ 4.1	$ (0.9)	$ (1.0)

Operating Activities

The use of cash in 2022 was driven by increased working capital of $57.2 million, driven by higher inventory levels resulting from supply chain constraints and an increase in accounts receivable of $23.2 million resulting from higher sales. These factors were partially offset by higher income in 2022 compared to 2021.

The use of cash in 2021 was driven by increased working capital of $20.7 million, primarily resulting from higher inventory driven by higher raw material prices, increased inventory levels in certain locations in response to global supply chain constraints, and inventory builds in connection with various facility consolidations.

Positive operating cash flow in 2020 was driven by lower working capital levels.

Investing Activities

Capital expenditures were $26.9 million in 2022, $22.3 million in 2021 and $20.3 million in 2020. These capital expenditures were primarily for growth initiatives, with the majority in our Assembly Components and Engineered Products segments. Capital expenditures were lower in 2020, as we curtailed non-critical capital spending in response to the COVID-19 pandemic.

In 2022 and 2021, we sold assets and received aggregate proceeds of $9.5 million and $20.3 million, respectively. See Note 5 to the consolidated financial statements included elsewhere herein for additional information. Additionally, we spent $22.7 million in the aggregate in 2022 for the acquisitions of Charter Automotive (Changzhou) Co. Ltd. ("Charter") and Southern Fasteners & Supply, Inc., ("Southern Fasteners") and $0.6 million for a contingent consideration payment related to our 2021 acquisition of NYK Component Solutions Limited ("NYK"). In 2021, we paid $5.4 million for the NYK acquisition. See Note 6 to the consolidated financial statements included elsewhere herein for additional information.

Financing Activities

Cash provided by financing activities in 2022 included debt borrowings of $73.2 million, proceeds from a third-party financing arrangement of $20.0 million in connection with the entry into the MOU, dividends of $7.0 million, and payments of withholding taxes on share awards of $1.6 million. The borrowings in 2022 were primarily used to fund higher working capital levels and the 2022 acquisitions.

Cash provided by financing activities in 2021 included debt borrowings of $73.3 million, dividends of $7.0 million, payments of withholding taxes on share awards of $3.0 million and treasury share repurchases of $2.5 million.

Cash used by financing activities in 2020 included debt repayments of $32.9 million, treasury share repurchases of $7.5 million, dividends of $3.2 million and payments of withholding taxes on share awards of $1.2 million. In the second and third quarters of 2020, we temporarily suspended our quarterly cash dividend to preserve capital in response to challenging market conditions and uncertainty caused by the COVID-19 pandemic. Our Board of Directors once again declared a dividend in the fourth quarter of 2020.

Liquidity

Overall, we utilized our revolving credit facility in 2022 to fund our higher working capital levels, our capital expenditures, our acquisitions and our other financing activities described above. See Note 9 to the consolidated financial statements included elsewhere herein for further discussion of our financing arrangements.

The following table summarizes our indicators of liquidity:

	2022	2021
	(Dollars in millions)	
Cash and cash equivalents	$ 58.2	$ 54.1
Gross debt (excluding unamortized debt issuance costs)	$ 669.1	$ 597.1
Financing arrangement with third party, net	$ 20.0	$ —
Working capital (excluding cash)	$ 425.6	$ 372.4
Net debt as a % of capitalization	66%	59%

Our liquidity needs are primarily for working capital and capital expenditures. Our primary sources of liquidity have been cash provided by operations, funds available from existing bank credit arrangements and the sale of our debt securities. Our existing financial resources, including working capital, available bank borrowing arrangements and anticipated cash from operations, are expected to be adequate to meet anticipated cash requirements for at least the next twelve months and for the foreseeable future thereafter, including but not limited to our ability to maintain current operations and fund capital expenditure requirements, service our debt and pay dividends.

As of December 31, 2022, we had $285.3 million outstanding under the revolving credit facility, and total liquidity of $167.9 million, which included cash and cash equivalents of $58.2 million and $109.7 million of unused borrowing availability and excluded $12.4 million of suppressed availability.

The Company had cash and cash equivalents held by foreign subsidiaries of $47.8 million at December 31, 2022 and $44.2 million at December 31, 2021. We do not expect restrictions on repatriation of cash held outside the U.S. to have a material effect on our overall liquidity, financial condition or results of operations for the foreseeable future.

Senior Notes

In April 2017, Park-Ohio Industries, Inc. ("Park-Ohio"), the operating subsidiary of Park-Ohio Holdings Corp., completed the sale, in a private placement, of $350.0 million aggregate principal amount of 6.625% Senior Notes due 2027 (the "Notes"). The net proceeds from the issuance of the Notes were used to repay in full our previously outstanding 8.125% Senior Notes due 2021 and our outstanding term loan, and to repay a portion of the borrowings then outstanding under our revolving credit facility.

Credit Agreement

Park-Ohio's Seventh Amended and Restated Credit Agreement (as amended, the "Credit Agreement") provides for a revolving credit facility in the amount of $405.0 million, including a $40.0 million Canadian revolving subcommitment and a European revolving subcommitment in the amount of $30.0 million. Pursuant to the Credit Agreement, the Company has the option to increase the availability under the revolving credit facility by an aggregate incremental amount up to $70.0 million. The Credit Agreement matures on November 16, 2024.

Financing Arrangement with Third Party

On December 30, 2022, the Company entered into the MOU with a third party pursuant to which the third party would purchase our Aluminum Products business. The sale of the Aluminum Products business is subject to the successful completion of a definitive purchase agreement and other customary conditions. In connection with the entry into the MOU, the Company also entered into a financing arrangement with the third party pursuant to which the Company received a portion of the estimated purchase price of the Aluminum Products business, including $20.0 million of cash and a promissory note in the principal amount of $25.0 million, and recorded a financing arrangement liability of $45.0 million. The Company used the $20.0 million from this financing arrangement to repay indebtedness under its revolving credit facility. If a definitive purchase agreement between the parties is not entered into or the sale is not successfully consummated, the promissory note will be cancelled and the Company will repay the third party $20.0 million, less a $0.8 million break-up fee.

Finance Leases

On August 13, 2015, the Company entered into a Finance Lease Agreement (the "Lease Agreement"). The Lease Agreement provides the Company up to $50.0 million for finance leases. Finance lease obligations of $5.1 million were borrowed under the Lease Agreement to acquire machinery and equipment as of December 31, 2022. As of December 31, 2022, the Company had additional finance leases totaling $13.4 million.

Covenants

The future availability of bank borrowings under the revolving credit facility provided by the Credit Agreement is based on (1) our calculated availability under the Credit Agreement and (2) if such calculated availability decreases below $50.625 million, our ability to meet a debt service ratio covenant. If our calculated availability is less than $50.625 million, our debt service coverage ratio must be greater than 1.0. At December 31, 2022, our calculated availability under the Credit Agreement was $102.3 million; therefore, the debt service ratio covenant did not apply.

Failure to maintain calculated availability of at least $50.625 million and meet the debt service ratio covenant could materially impact the availability and interest rate of future borrowings. Our debt service coverage ratio could be materially impacted by negative economic trends, including inflation and supply chain disruptions. To make certain permitted payments as defined under the Credit Agreement, including but not limited to acquisitions and dividends, we must meet defined availability thresholds ranging from $37.5 million to $50.625 million, and a defined debt service coverage ratio of 1.15.

As our calculated availability under the Credit Agreement was above $50.625 million, we were also in compliance with the other covenants contained in the revolving credit facility as of December 31, 2022. While we expect to remain in compliance throughout 2023, declines in sales volumes in the future, could adversely impact our ability to remain in compliance with certain of these financial covenants. Additionally, to the extent our customers are adversely affected by declines in the economy in general, they may be unable to pay their accounts payable to us on a timely basis or at all, which could make our accounts receivable ineligible for purposes of the revolving credit facility and could reduce our borrowing base and our ability to borrow under such facility.

Dividends

The Company paid dividends to shareholders of $6.4 million during 2022. On January 27, 2023, the Company's Board of Directors declared a quarterly dividend of $0.125 per common share. The dividend was paid on February 24, 2023, to shareholders of record as of the close of business on February 10, 2023 and resulted in cash payments of $1.6 million. Although we currently intend to pay a quarterly dividend on an ongoing basis, all future dividend declarations will be at the discretion of our Board of Directors and dependent upon then-existing conditions, including our operating results and financial condition, capital requirements, contractual restrictions, business prospects and other factors that our Board of Directors may deem relevant.

Contractual and Other Obligations and Commitments

Our material cash commitments from known contractual and other obligations primarily consist of obligations for long-term debt and related interest, leases for properties and equipment and purchase obligations as part of normal operations. See Note 9 - Financing Arrangements, in Part II, Item 8 of this Annual Report, for more information regarding scheduled maturities of our long-term debt. See Note 13 - Lease Arrangements, in Part II, Item 8 of this Annual Report for additional information on leases. See Note 14 - Pension and Postretirement Benefits for additional information of future pension and postretirement benefit obligations.

Interest payable associated with our 6.625% Senior Notes due 2027 is $23.2 million due in the twelve months following December 31, 2022 and $76.3 million due thereafter.

As of December 31, 2022, our undiscounted purchase obligations were $282.2 million due in the next twelve months and $1.6 million due thereafter under purchase orders and "take or pay" arrangements. These purchase obligations include all enforceable, legally binding agreements to purchase goods or services that specify all significant terms, regardless of the duration of the agreement, and exclude agreements with variable terms for which we are unable to estimate the minimum amounts.

Off-Balance Sheet Arrangements

We do not have off-balance sheet arrangements, financing or other relationships with unconsolidated entities or other persons, other than the letters of credits disclosed in Note 9 to the consolidated financial statements, included elsewhere herein.

Critical Accounting Policies and Estimates

Preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make certain estimates and assumptions which affect amounts reported in our consolidated financial statements. On an ongoing basis, we evaluate the accounting policies and estimates that are used to prepare financial statements. Management has made their best estimates and judgments of certain amounts included in the financial statements, giving due consideration to materiality. We do not believe that there is great likelihood that materially different amounts would be reported under different conditions or using different assumptions related to the accounting policies described below. However, application of these accounting policies involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates.

Certain accounting policies that require significant management estimates and are deemed critical to our results of operations or financial position are discussed below. On a regular basis, critical accounting policies are reviewed with the Audit Committee of the Board of Directors.

Revenue Recognition: We recognize revenue, other than from long-term contracts, when our obligations under the contact terms are satisfied and control transfers to the customer, typically upon shipment. Revenue from certain long-term contracts is accounted for over time, when products are manufactured or services are performed, as control transfers under these arrangements. We follow the input method since reasonably reliable estimates of revenue and costs of a contract can be made. See Note 2 of the consolidated financial statements included elsewhere herein for additional disclosures on revenue.

Allowance for Obsolete and Slow-Moving Inventory: Inventories are valued using first-in, first-out or the weighted-average inventory method; stated at the lower of cost or net realizable value; and have been reduced by an allowance for obsolete and slow-moving inventories. The estimated allowance is based on management's review of inventories on hand with minimal sales activity, which is compared to estimated future usage and sales. Inventories identified by management as slow-moving or obsolete are reserved for based on estimated selling prices less disposal costs. Though we consider these allowances adequate and proper, changes in economic conditions in specific markets in which we operate could have a material effect on allowances required.

Business Combinations: Business combinations are accounted for using the purchase method of accounting under ASC 805, "Business Combinations." This method requires the Company to record assets and liabilities of the business acquired at their estimated fair values as of the acquisition date. Any excess of the cost of the acquisition over the fair value of the net assets acquired is recorded as goodwill. The Company uses valuation specialists to perform appraisals and assist in the determination of the fair values of the assets acquired and liabilities assumed. These valuations require management to make estimates and assumptions including discount rates, rates of return on assets, long-term sales growth rates, and royalty rates.

Goodwill and Indefinite-Lived Intangible Assets: As required by ASC 350, "Intangibles - Goodwill and Other" ("ASC 350"), management performs impairment testing of goodwill at least annually, as of October 1 of each year, or more frequently if impairment indicators arise. Management tests goodwill for impairment at the reporting unit level. A reporting unit is an operating segment pursuant to ASC 280, "Segment Reporting", or one level below the operating segment (component level) as determined by the availability of discrete financial information that is regularly reviewed by operating segment management. Our reporting units have been identified at the component level. For 2022, 2021 and 2020, we performed quantitative testing for each reporting unit with a goodwill balance.

Our annual goodwill impairment analysis utilizes a quantitative approach comparing the carrying amount of the reporting unit to its estimated fair value. To the extent that the carrying value of the reporting unit exceeds its estimated fair value, an impairment charge is recorded. In applying the quantitative approach, we use an income approach to estimate the fair value of the reporting unit. The income approach uses a number of factors, including future business plans, actual and forecasted operating results, and market data. The significant assumptions employed under this method include discount rates; revenue growth rates, including assumed terminal growth rates; and operating margins used to project future cash flows for a reporting unit. The discount rates utilized reflect market-based estimates of capital costs and discount rates adjusted for management's assessment of a market participant's view with respect to other risks associated with the projected cash flows of the individual reporting unit. Our estimates are based upon assumptions we believe to be reasonable, but which by nature are uncertain and unpredictable. We believe we incorporate ample sensitivity ranges into our analysis of goodwill impairment testing for a reporting unit, such that actual experience would need to be materially out of the range of expected assumptions in order for an impairment to remain undetected. We validate our estimates of fair value under the income approach by considering the implied control premium and conclude whether that premium is reasonable based on recent market transactions.

The results of testing as of October 1, 2022, 2021 and 2020 for all reporting units confirmed that the estimated fair values exceeded carrying values, and no impairment related to continuing operations existed as of those dates. The Company's reporting units with goodwill balances had fair values in excess of their carrying amounts by at least 14%.

Additionally, we test all indefinite-lived intangible assets for impairment at least annually, as of October 1 of each year, or more frequently if impairment indicators arise. In 2022, 2021 and 2020, we utilized a quantitative approach using the royalty relief method. The significant assumptions employed under this method include discount rates, revenue growth rates, including assumed terminal growth rates, and royalty rates. The discount rates utilized reflect market-based estimates of capital costs and discount rates adjusted for management's assessment of a market participant's view with respect to other risks associated with the projected cash flows of the individual reporting unit. Our estimates are based upon assumptions we believe to be reasonable, but which by nature are uncertain and unpredictable. We believe we incorporate ample sensitivity ranges into our analysis of intangible impairment testing, such that actual experience would need to be materially out of the range of expected assumptions in order for an impairment to remain undetected.

The results of testing as of October 1, 2022, 2021 and 2020 for all reporting units confirmed that the estimated fair value exceeded carrying values, and no impairment existed as of those dates.

See Notes 7 and 8 of the consolidated financial statements included elsewhere herein for additional disclosure on goodwill and indefinite-lived intangibles.

Income Taxes: In accordance with ASC 740, "Income Taxes" ("ASC 740"), we account for income taxes under the asset and liability method, whereby deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and the tax bases of assets and liabilities and are measured using the currently enacted tax rates. Specifically, we measure gross deferred tax assets for deductible temporary differences and carryforwards, such as operating losses and tax credits, using the applicable enacted tax rates and apply the more likely than not measurement criterion.

In determining if it is more likely than not that all or some portion of a deferred tax asset will be realized, we consider the following factors: future reversals of existing taxable temporary differences; taxable income in prior years if carryback is permitted under the tax law; tax planning strategies that could accelerate taxable income; and future taxable income. Based on these factors, when we have determined that the realizability of certain domestic and foreign deferred tax assets is more likely than not to not be realized, a valuation allowance has been established.

Further, at each interim reporting period, we estimate an effective income tax rate that is expected to be applicable for the full year. Significant judgment is involved regarding the application of global income tax laws and regulations and when projecting the jurisdictional mix of income. Additionally, interpretation of tax laws, court decisions or other guidance provided by taxing authorities influences our estimate of the effective income tax rates. As a result, our actual annual effective income tax rates and related income tax liabilities may differ materially from our interim estimated effective tax rates and related income tax liabilities. Any resulting differences are recorded in the period they become known.

Pension Plans: We and our subsidiaries have pension plans, principally noncontributory defined benefit or noncontributory defined contribution plans covering substantially all employees. The measurement of liabilities related to these plans is based on management's assumptions related to future events, including interest rates, return on pension plan assets, rate of compensation increases, and health care cost trends. Pension plan asset performance in the future will directly impact our net income. We have evaluated our pension assumptions, considering current trends in interest rates and market conditions and believe our assumptions are appropriate.

We consult with our actuaries at least annually when reviewing and selecting the discount rates to be used. The discount rates used by the Company are based on yields of various corporate and governmental bond indices with actual maturity dates that approximate the estimated benefit payment streams of the related pension plans. The discount rates are also reviewed in comparison with current benchmark indices, economic market conditions and the movement in the benchmark yield since the previous fiscal year. The liability weighted-average discount rate for the defined benefit pension plan is 5.48% for 2022, compared with 2.80% in 2021. For the other postretirement benefit plan, the rate is 5.41% for 2022 and 2.49% for 2021. This rate represents the interest rates generally available in the United States, which is the Company's only country with other postretirement benefit liabilities. Another assumption that affects the Company's pension expense is the expected long-term rate of return on assets. The Company's pension plans are funded. The weighted-average expected long-term rate of return on assets assumption is 7.75% for 2022. In determining the expected return on plan assets, we consider both historical performance and an estimate of future long-term rates of return on assets similar to those in our plan. We consult with and consider opinions of financial and actuarial experts in developing appropriate return assumptions.

Legal Contingencies: We are involved in a variety of claims, suits, investigations and administrative proceedings with respect to commercial, premises liability, product liability, employment, personal injury and environmental matters arising from the ordinary course of business. We accrue reserves for legal contingencies, on an undiscounted basis, when it is probable that we have incurred a liability and we can reasonably estimate an amount. When a single amount cannot be reasonably estimated, but the cost can be estimated within a range and no amount within the range is a better estimate than any other amount, we accrue the minimum amount in the range. Based upon facts and information currently available, we believe the amounts reserved are adequate for such pending matters. We monitor the development of legal proceedings on a regular basis and will adjust our reserves when, and to the extent, additional information becomes available.

Environmental

We have been identified as a potentially responsible party at third-party sites under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, or comparable state laws, which provide for strict and, under certain circumstances, joint and several liability. We are participating in the cost of certain clean-up efforts at several of these sites. However, our share of such costs has not been material and based on available information, management does not expect our exposure at any of these locations to have a material adverse effect on our results of operations, liquidity or financial condition.

We have been named as one of many defendants in a number of asbestos-related personal injury lawsuits. Our cost of defending such lawsuits has not been material to date and, based upon available information, management does not expect our future costs for asbestos-related lawsuits to have a material adverse effect on our results of operations, liquidity or financial condition. We caution, however, that inherent in management's estimates of our exposure are expected trends in claims severity, frequency and other factors that may materially vary as claims are filed and settled or otherwise resolved.

Seasonality; Variability of Operating Results

The timing of orders placed by our customers has varied with, among other factors, orders for customers' finished goods, customer production schedules, competitive conditions and general economic conditions. The variability of the level and timing of orders has, from time to time, resulted in significant periodic and quarterly fluctuations in the operations of our business units. Such variability is particularly evident in the industrial equipment business unit included in the Engineered Products segment, which typically ships a few large systems per year.

Forward-Looking Statements

This Annual Report on Form 10-K contains certain statements that are "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. The words "believes", "anticipates", "plans", "expects", "intends", "estimates" and similar expressions are intended to identify forward-looking statements.

These forward-looking statements, including statements regarding future performance of the Company, that are subject to known and unknown risks, uncertainties and other factors that may cause our actual results, performance and achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These factors that could cause actual results to differ materially from expectations include, but are not limited to, the following: our ability to consummate the sale of our Aluminum Products business for any reason, including the inability to enter into a definitive purchase agreement; the ultimate impact the COVID-19 pandemic has on our business, results of operations, financial position and liquidity, including, without limitation, supply chain issues such as the global semiconductor micro-chip shortage and logistic issues; our substantial indebtedness; the uncertainty of the global economic environment; general business conditions and competitive factors, including pricing pressures and product innovation; demand for our products and services; the impact of labor disturbances affecting our customers; raw material availability and pricing; fluctuations in energy costs; component part availability and pricing; changes in our relationships with customers and suppliers; the financial condition of our customers, including the impact of any bankruptcies; our ability to successfully integrate recent and future acquisitions into existing operations; the amounts and timing, if any, of purchases of our common stock; changes in general economic conditions such as inflation rates, interest rates, tax rates, unemployment rates, higher labor and healthcare costs, recessions and changing government policies, laws and regulations, including those related to the current global uncertainties and crises, such as tariffs and surcharges; adverse impacts to us, our suppliers and customers from acts of terrorism or hostilities, including the conflict between Russia and Ukraine, or political unrest, including the rising tension between China and the United States; public health issues, including the outbreak of COVID-19 and its impact on our facilities and operations and our customers and suppliers; our ability to meet various covenants, including financial covenants, contained in the agreements governing our indebtedness; disruptions, uncertainties or volatility in the credit markets that may limit our access to capital; potential disruption due to a partial or complete reconfiguration of the European Union; increasingly stringent domestic and foreign governmental regulations, including those affecting the environment or import and export controls and other trade barriers; inherent uncertainties involved in assessing our potential liability for environmental remediation-related activities; the outcome of pending and future litigation and other claims and disputes with customers; our dependence on the automotive and heavy-duty truck industries, which are highly cyclical; the dependence of the automotive industry on consumer spending; our ability to negotiate contracts with labor unions; our dependence on key management; our dependence on information systems; our ability to continue to pay cash dividends, and the timing and amount of any such dividends; and the other factors we describe under "Item 1A. Risk Factors" included in this Annual Report on Form 10-K. Any forward-looking statement speaks only as of the date on which such statement is made, and we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law. In light of these and other uncertainties, the inclusion of a forward-looking statement herein should not be regarded as a representation by us that our plans and objectives will be achieved. The Company assumes no obligation to update the information in this Annual Report on Form 10-K, except to the extent required by law.

Item 7A. *Quantitative and Qualitative Disclosures About Market Risk*

We are exposed to market risk, including changes in interest rates. As of December 31, 2022, we are subject to interest rate risk on borrowings under the floating rate revolving credit facility provided by our Credit Agreement, which consisted of borrowings of $285.3 million at December 31, 2022. A 100-basis point increase in the interest rate would have resulted in an increase in interest expense on these borrowings of approximately $2.9 million for the year ended December 31, 2022.

We are exposed to changes in foreign currency exchange rates. Our foreign subsidiaries generally conduct business in local currencies. We face translation risks related to the changes in foreign currency exchange rates. Amounts invested in our foreign operations are translated in U.S. dollars at the exchange rates in effect at the balance sheet date. The resulting translation adjustments are recorded as a component of Accumulated other comprehensive loss in the Shareholders' equity section of the accompanying Consolidated Balance Sheets. Sales and expenses at our foreign operations are translated into U.S. dollars at the applicable monthly average exchange rates. Therefore, changes in exchange rates may either positively or negatively affect our net sales and expenses from foreign operations as expressed in U.S. dollars. During 2022, we entered into an agreement to hedge foreign currency exchange rates. The agreement did not have a material impact on the results of the Company.

Our largest exposures to commodity prices relate to metal and natural gas prices, which have fluctuated widely in recent years. We have no commodity swap agreements or forward purchase contracts.

Item 8. ***Financial Statements and Supplementary Data***

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY FINANCIAL DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Park-Ohio Holdings Corp.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Park Ohio Holdings Corp. and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive (loss) income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 16, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the account or disclosure to which it relates.

Quantitative Impairment Assessment of Goodwill

Description of the matter	At December 31, 2022, the Company's goodwill was $108.9 million. As discussed in Note 1 to the consolidated financial statements, goodwill is tested for impairment at least annually at the reporting unit level or more frequently if impairment indicators arise. Goodwill is tested at the reporting unit level for impairment utilizing the income approach, which uses a discounted cash flow methodology to estimate the fair value of each reporting unit. Auditing management's quantitative goodwill impairment assessment for certain of its reporting units was complex and highly judgmental due to the significant estimation required to determine the fair value of the reporting units. In particular, the fair value estimate was sensitive to significant assumptions, such as revenue growth rates, operating margins and weighted average cost of capital (WACC), which are impacted by expectations of future market or economic conditions.
How we addressed the matter in our audit	We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's goodwill impairment process. This included controls over management's review of the significant assumptions underlying the fair value determination described above. To test the estimated fair value of the Company's reporting units, we performed audit procedures that included, among others, assessing methodologies and testing the significant assumptions described above and the underlying data used by the Company in its analysis. For example, we compared the significant assumptions used by management to current industry and economic trends and to historical results. We assessed the historical accuracy of management's estimates and performed sensitivity analyses of significant assumptions to evaluate the changes in the fair value of the reporting units that would result from changes in the assumptions. We also involved our specialists to review the methodology, and certain assumptions such as the WACC. In addition, we tested management's reconciliation of the fair value of the reporting units to the market capitalization of the Company.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1967.

Cleveland, Ohio
March 16, 2023

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Park-Ohio Holdings Corp.

Opinion on Internal Control over Financial Reporting

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

As indicated in the accompanying Management's Report on Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Charter Automotive (Changzhou) Co. Ltd. (Charter) or Southern Fasteners & Supply, Inc (Southern Fastener), the results of which are included in the 2022 consolidated financial statements of the Company and collectively constituted approximately 2% of total assets as of December 31, 2022 and 1% of total revenues for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of Charter or Southern Fasteners.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive (loss) income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and financial statement schedule listed in the Index at Item 15(a) and our report dated March 16, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ Ernst & Young LLP

Cleveland, Ohio
March 16, 2023

PARK-OHIO HOLDINGS CORP. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

	December 31, 2022	December 31, 2021
	(In millions, except share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 58.2	$ 54.1
Accounts receivable, net	246.3	223.6
Inventories, net	406.5	352.4
Unbilled contract revenue	56.7	55.0
Promissory note related to financing arrangement	25.0	—
Other current assets	32.5	25.2
Current assets held-for-sale - discontinued operations[1]	107.2	65.2
Total current assets	932.4	775.5
Property, plant and equipment, net	181.1	179.2
Operating lease right-of-use assets	54.7	56.4
Goodwill	108.9	106.0
Intangible assets, net	78.7	81.7
Pension assets	63.9	86.2
Other long-term assets	16.9	18.1
Long-term assets held-for-sale - discontinued operations[1]	—	56.9
Total assets	$ 1,436.6	$ 1,360.0
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Trade accounts payable	$ 221.0	$ 178.3
Current portion of long-term debt and short-term debt	10.9	6.3
Current portion of operating lease liabilities	11.2	10.6
Accrued employee compensation	22.3	26.4
Deferred revenue	52.6	51.7
Financing arrangement liability	45.0	—
Other accrued expenses	41.8	42.8
Current liabilities held-for-sale - discontinued operations[1]	43.8	32.9
Total current liabilities	448.6	349.0
Long-term liabilities, less current portion:		
Long-term debt	655.1	586.9
Long-term operating lease liabilities	43.7	45.9
Deferred income taxes	10.6	31.8
Other long-term liabilities	10.7	12.2
Long-term liabilities held-for-sale - discontinued operations[1]	—	9.4
Total long-term liabilities	720.1	686.2
Park-Ohio Holdings Corp. and Subsidiaries shareholders' equity:		
Capital stock, par value $1 a share		
Serial preferred stock: Authorized -- 632,470 shares: Issued and outstanding -- none	—	—
Common stock: Authorized - 40,000,000 shares; Issued - 16,653,928 shares in 2022 and 16,339,722 in 2021	16.6	16.3
Additional paid-in capital	149.8	142.9
Retained earnings	238.8	259.4
Treasury stock, at cost, 3,846,860 shares in 2022 and 3,751,993 shares in 2021	(86.9)	(85.3)
Accumulated other comprehensive loss	(61.8)	(19.2)
Total Park-Ohio Holdings Corp. and Subsidiaries shareholders' equity	256.5	314.1
Noncontrolling interests	11.4	10.7
Total equity	267.9	324.8
Total liabilities and shareholders' equity	$ 1,436.6	$ 1,360.0

(1) Our continuing operations exclude the results of our Aluminum Products business unit, which is held-for-sale as of December 31, 2022 and presented in discontinued operations for all periods presented.

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

PARK-OHIO HOLDINGS CORP. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2022	2021	2020
	(In millions, except per share data)		
Net sales	$ 1,492.9	$ 1,277.0	$ 1,152.1
Cost of sales	1,282.4	1,099.1	986.8
Selling, general and administrative expenses	162.2	155.9	140.2
Restructuring and other special charges	17.3	20.4	6.6
Gains on sales of assets, net	(2.4)	(14.7)	—
Operating income	33.4	16.3	18.5
Other components of pension income and other postretirement benefits expense, net	11.1	9.7	7.3
Interest expense, net	(33.8)	(27.1)	(27.6)
Income (loss) from continuing operations before income taxes	10.7	(1.1)	(1.8)
Income tax benefit	0.7	1.0	1.3
Income (loss) from continuing operations	11.4	(0.1)	(0.5)
(Income) loss attributable to noncontrolling interest	(1.3)	1.2	0.3
Income (loss) from continuing operations attributable to ParkOhio common shareholders	10.1	1.1	(0.2)
Loss from discontinued operations, net of tax (Note 4)	(24.3)	(25.9)	(4.3)
Net loss attributable to ParkOhio common shareholders	$ (14.2)	$ (24.8)	$ (4.5)
(Loss) earnings per common share attributable to ParkOhio common shareholders:			
Basic:			
Continuing operations	$ 0.83	$ 0.09	$ (0.02)
Discontinued operations	(2.00)	(2.16)	(0.35)
Total	$ (1.17)	$ (2.07)	$ (0.37)
Diluted:			
Continuing operations	$ 0.83	$ 0.09	$ (0.02)
Discontinued operations	(1.99)	(2.11)	(0.35)
Total	$ (1.16)	$ (2.02)	$ (0.37)
Weighted-average shares used to compute earnings (loss) per share:			
Basic	12.1	12.0	12.1
Diluted	12.2	12.3	12.1

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

PARK-OHIO HOLDINGS CORP. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME

	Year Ended December 31,		
	2022	2021	2020
		(In millions)	
Net loss attributable to ParkOhio common shareholders before noncontrolling interest	$ (12.9)	$ (26.0)	$ (4.8)
Other comprehensive (loss) income:			
Currency translation	(19.9)	(10.0)	14.1
Pensions and other postretirement benefits, net of tax	(22.7)	8.9	4.8
Total other comprehensive (loss) income	(42.6)	(1.1)	18.9
Total comprehensive (loss) income, net of tax	(55.5)	(27.1)	14.1
Comprehensive (income) loss attributable to noncontrolling interest	(1.3)	1.2	0.3
Comprehensive (loss) income attributable to ParkOhio common shareholders	$ (56.8)	$ (25.9)	$ 14.4

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

PARK-OHIO HOLDINGS CORP. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

	Common Stock							
	Shares	Amount	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive (Loss) Income	Noncontrolling Interest	Total
	(In whole shares)	(In millions)						
Balance at January 1, 2020	15,706,398	15.7	129.8	298.2	(71.1)	(37.0)	14.0	349.6
Comprehensive (loss) income	—	—	—	(4.5)	—	18.9	(0.3)	14.1
Stock-based compensation	—	—	6.1	—	—	—	—	6.1
Restricted stock awards issued	447,393	0.4	(0.4)	—	—	—	—	—
Restricted stock cancelled	(5,000)	—	—	—	—	—	—	—
Dividends	—	—	—	(3.2)	—	—	—	(3.2)
Purchase of treasury stock (519,387 shares)	—	—	—	—	(8.7)	—	—	(8.7)
Balance at December 31, 2020	16,148,791	16.1	135.5	290.5	(79.8)	(18.1)	13.7	357.9
Comprehensive loss	—	—	—	(24.8)	—	(1.1)	(1.2)	(27.1)
Stock-based compensation	—	—	6.5	—	—	—	—	6.5
Restricted stock awards issued	202,848	0.2	(0.2)	—	—	—	—	—
Restricted stock cancelled	(11,917)	—	—	—	—	—	—	—
Dividends	—	—	—	(6.3)	—	—	(0.7)	(7.0)
Purchase of treasury stock (191,983)	—	—	—	—	(5.5)	—	—	(5.5)
Increase in Park-Ohio ownership interest	—	—	1.1	—	—	—	(1.1)	—
Balance at December 31, 2021	16,339,722	16.3	142.9	259.4	(85.3)	(19.2)	10.7	324.8
Comprehensive (loss) income	—	—	—	(14.2)	—	(42.6)	1.3	(55.5)
Stock-based compensation	—	—	7.2	—	—	—	—	7.2
Restricted stock awards issued	331,455	0.3	(0.3)	—	—	—	—	—
Restricted stock cancelled	(17,249)	—	—	—	—	—	—	—
Dividends	—	—	—	(6.4)	—	—	(0.6)	(7.0)
Purchase of treasury stock (94,867)	—	—	—	—	(1.6)	—	—	(1.6)
Balance at December 31, 2022	16,653,928	$ 16.6	$ 149.8	$ 238.8	$ (86.9)	$ (61.8)	$ 11.4	$ 267.9

	Year Ended December 31,		
	2022	2021	2020
Cash dividends per common share	$ 0.50	$ 0.50	$ 0.25

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

PARK-OHIO HOLDINGS CORP. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2022	2021	2020
		(In millions)	
OPERATING ACTIVITIES FROM CONTINUING OPERATIONS			
Income (loss) from continuing operations	$ 11.4	$ (0.1)	$ (0.5)
Adjustments to reconcile income (loss) from continuing operations to net cash (used) provided by operating activities from continuing operations:			
Depreciation and amortization	30.2	30.8	28.2
Stock-based compensation	7.2	6.5	6.1
Gains on sales of assets, net	(2.4)	(14.7)	—
Deferred income taxes	(8.3)	(5.8)	6.9
Changes in operating assets and liabilities:			
Accounts receivable	(23.2)	(3.4)	14.0
Inventories	(56.0)	(55.1)	14.7
Prepaid and other current assets	(11.1)	1.2	(6.6)
Accounts payable and accrued expenses	33.1	36.6	(4.1)
Other	(7.5)	(8.2)	(0.1)
Net cash (used) provided by operating activities from continuing operations	(26.6)	(12.2)	58.6
INVESTING ACTIVITIES FROM CONTINUING OPERATIONS			
Purchases of property, plant and equipment	(26.9)	(22.3)	(20.3)
Proceeds from sales of assets	9.5	20.3	1.4
Business acquisitions, net of cash acquired	(23.3)	(5.4)	—
Net cash used by investing activities from continuing operations	(40.7)	(7.4)	(18.9)
FINANCING ACTIVITIES FROM CONTINUING OPERATIONS			
Proceeds from (payments on) revolving credit facility, net	64.8	77.6	(29.3)
Payments on term loans and other debt	(3.6)	(6.3)	(13.0)
Proceeds from other long-term debt	3.5	2.3	5.5
Proceeds from (payments on) finance lease facilities, net	8.5	(0.3)	3.9
Proceeds from third-party financing arrangement	20.0	—	—
Dividends	(7.0)	(7.0)	(3.2)
Purchases of treasury stock	—	(2.5)	(7.5)
Payments of withholding taxes on stock awards	(1.6)	(3.0)	(1.2)
Net cash provided (used) by financing activities from continuing operations	84.6	60.8	(44.8)
DISCONTINUED OPERATIONS[1]:			
Total (used) provided by operating activities	(1.0)	(31.1)	10.7
Total used by investing activities	(4.8)	(8.8)	(6.0)
Total used by financing activities	(3.4)	(0.9)	(2.5)
(Decrease) increase in cash and cash equivalents from discontinued operations	(9.2)	(40.8)	2.2
Effect of exchange rate changes on cash	(4.0)	(1.3)	1.9
Increase (decrease) in cash and cash equivalents	4.1	(0.9)	(1.0)
Cash and cash equivalents at beginning of year	54.1	55.0	56.0
Cash and cash equivalents at end of year	$ 58.2	$ 54.1	$ 55.0
Income taxes paid (received), net	$ 10.7	$ (1.0)	$ 5.5
Interest paid	$ 34.5	$ 28.8	$ 28.3

(1) Our continuing operations exclude the results of our Aluminum Products business unit, which is held-for-sale as of December 31, 2022 and presented in discontinued operations for all periods presented.

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

(Dollars in millions, except per share data.)

NOTE 1 — Summary of Significant Accounting Policies

Consolidation and Basis of Presentation: Park-Ohio Holdings Corp. (“ParkOhio,” “we” or the “Company”) is a diversified international company providing world-class customers with a supply chain management outsourcing service, capital equipment used on their production lines, and manufactured components used to assemble their products. The Company operates three reportable segments: Supply Technologies, Assembly Components and Engineered Products. The consolidated financial statements include the accounts of the Company and all of its majority-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation. The Company does not have off-balance sheet arrangements or financings with unconsolidated entities or other persons, other than the letters of credits disclosed in Note 9. The Company leases certain real properties owned by related parties as described in Note 13. Transactions with related parties are not material to the Company’s financial position, results of operations or cash flows.

Discontinued Operations: During the fourth quarter of 2022, we determined that our Aluminum Products business met the held-for-sale and discontinued operations accounting criteria. Accordingly, the Company has reported the held-for-sale assets and liabilities, the operating results and the cash flows of Aluminum Products in discontinued operations for all periods presented throughout this Annual Report on Form 10-K. Unless otherwise indicated, amounts and activity in this Annual Report are presented on a continuing operations basis. See Note 4, “Discontinued Operations,” in the Notes to Consolidated Financial Statements for further information.

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

Cash Equivalents: The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Accounts Receivable and Allowance for Doubtful Accounts: Accounts receivable are recorded at net realizable value. Accounts receivable are reduced by an allowance for amounts that may become uncollectible in the future. The allowance for doubtful accounts was $3.8 million and $5.2 million at December 31, 2022 and 2021, respectively. The Company’s policy is to measure expected credit losses on accounts receivable based on historical experience, current conditions and reasonable forecasts. During 2022 and 2021, we sold, without recourse, $131.3 million and $102.3 million, respectively, of accounts receivable to mitigate accounts receivable concentration risk and to increase working capital efficiency. Sales of accounts receivable are reflected as a reduction of accounts receivable in the Consolidated Balance Sheets, and the proceeds are included in cash flows from operating activities in the Consolidated Statements of Cash Flows. Expense in the amount of $1.0 million and $0.4 million in 2022 and 2021, respectively, related to the discount on sale of accounts receivable is recorded in the Consolidated Statements of Operations.

Inventories: Inventories are valued using first-in, first-out or the weighted-average inventory method and stated at the lower of cost or net realizable value.

Major Classes of Inventories	December 31, 2022	December 31, 2021
Raw materials and supplies	$ 105.0	$ 100.8
Work in process	42.9	41.0
Finished goods	258.6	210.6
Inventories, net	$ 406.5	$ 352.4
Other Inventory Items		
Inventory reserves	$ (38.5)	$ (37.5)
Consigned inventory	$ 11.5	$ 10.6

Property, Plant and Equipment: Property, plant and equipment is carried at cost. Additions and improvements that extend the lives of assets are capitalized, and expenditures for repairs and maintenance are charged to operations as incurred. Depreciation of fixed assets, including amounts capitalized under finance leases, is computed by the straight-line method based on the estimated useful lives of the assets ranging from five to 40 years for buildings, and one to 20 years for machinery and equipment (with the majority in the range of three to ten years).

The following table summarizes property, plant and equipment:

	December 31, 2022	December 31, 2021
Land and land improvements	$ 9.0	$ 9.4
Buildings	60.6	62.6
Machinery and equipment	338.8	341.7
Leased property under finance leases	28.3	15.2
Total property, plant and equipment	436.7	428.9
Less: Accumulated depreciation	255.6	249.7
Property, plant and equipment, net	$ 181.1	$ 179.2

	Year Ended December 31,		
	2022	2021	2020
Depreciation expense	$ 23.6	$ 23.9	$ 22.0

Goodwill and Indefinite-Lived Assets: In accordance with Accounting Standards Codification ("ASC") 350, "Intangibles — Goodwill and Other" ("ASC 350"), goodwill and indefinite life intangible assets are not amortized but rather are tested annually for impairment as of October 1, or whenever events or changes in circumstances indicate there may be an indicator of impairment in accordance with ASC 350. Goodwill is tested for impairment at the reporting unit level and is based on the net assets of each reporting unit, including goodwill and intangible assets, compared to its fair value. Our reporting units have been identified one level below the operating segment level. The Company completed its annual goodwill and indefinite-lived intangibles impairment testing as of October 1 of each year, noting no impairment related to continuing operations. To determine fair value for goodwill testing purposes, the Company uses an income approach, utilizing a discounted cash flow model based on forecasted cash flows and weighted average cost of capital. To determine fair value for indefinite-lived intangibles testing, the Company uses a relief-of-royalty method.

See Notes 7 and 8 for additional disclosures about goodwill and indefinite-lived intangibles.

Impairment of Other Long-Lived Assets: Other long-lived assets, including operating lease right-of-use assets, are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. Upon indications of impairment, assets and liabilities are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. The asset group would be considered impaired if the estimated future net undiscounted cash flows generated by the asset group are less than its carrying value. Impairment losses are measured by comparing the estimated fair value of the asset group to its carrying value.

Fair Values of Financial Instruments: Certain financial instruments are required to be recorded at fair value. The Company measures financial assets and liabilities at fair value in three levels of inputs. The three-tier fair value hierarchy, which prioritizes the inputs used in the valuation methodologies, is as follows:

Level 1 — Valuations based on quoted prices for identical assets and liabilities in active markets.

Level 2 — Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3 — Valuations based on unobservable inputs reflecting our own assumptions, consistent with reasonably available assumptions made by other market participants. These valuations require significant judgment.

Changes in assumptions or estimation methods could affect the fair value estimates; however, we do not believe any such changes would have a material impact on our financial condition, results of operations or cash flows. The carrying value of cash and cash equivalents, accounts receivable, accounts payable and borrowings under the Credit Agreement (as defined in Note 9) approximate fair value at December 31, 2022 and December 31, 2021 because of the short-term nature of these instruments. The fair values of long-term debt and pension plan assets are disclosed in Note 9 and Note 14, respectively.

The Company has not changed its valuation techniques for measuring fair value during 2022, and there were no transfers between levels during the periods presented.

Pensions: We account for our pensions in accordance with ASC Topic 715, "Compensation — Retirement Benefits." Net actuarial gains and losses are amortized to expense when they exceed the 10% accounting corridor, based on the greater of the plan assets or benefit obligations, over an average employee future service period. Refer to Note 14 for more information.

Income Taxes: The Company accounts for income taxes under the asset and liability method, whereby deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and the tax bases of assets and liabilities and are measured using the current enacted tax rates. In determining these amounts, management determined the probability of realizing deferred tax assets, taking into consideration factors including historical operating results, cumulative earnings and losses, expectations of future earnings, taxable income and the extended period of time over which the postretirement benefits will be paid. As required by ASC 740, "Income Taxes" ("ASC 740"), the Company records valuation allowances if, based on the weight of available evidence, it is more likely than not that all or some portion of our deferred tax assets will not be realized.

We have elected to account for global intangible low-taxed income ("GILTI") as a current period expense. The impact of GILTI at December 31, 2022 and 2021 was tax expense of $1.8 million and $1.4 million, respectively.

Revenue Recognition: The Company recognizes revenue, other than from long-term contracts within the Engineered Products segment, when its obligations under the contract terms are satisfied and control transfers to the customer, typically upon shipment. Revenue from certain long-term contracts is accounted for over time, as products are manufactured or services are performed, as control transfers over time under these arrangements. We follow this method since reasonably reliable estimates of revenue and costs of a contract can be made. See Note 2 for additional disclosure on revenue.

Cost of Sales: Cost of sales is primarily comprised of direct materials and supplies consumed in the manufacture of product; manufacturing labor, depreciation expense and direct overhead expense; and shipping and handling costs.

Concentration of Credit Risk: The Company sells its products to customers in diversified industries. The Company performs ongoing credit evaluations of its customers' financial condition but does not require collateral to support customer receivables. The Company establishes an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends, current conditions and reasonable forecasts. As of December 31, 2022, the Company had uncollateralized receivables with five customers in the automotive industry, each with several locations, aggregating $28.1 million, which represented approximately 11% of the Company's trade accounts receivable. During 2022, sales to these customers amounted to approximately $218.5 million, which represented approximately 15% of the Company's net sales.

Environmental: The Company expenses environmental costs related to existing conditions resulting from past or current operations and from which no current or future benefit is discernible. Costs that extend the life of the related property or mitigate or prevent future environmental contamination are capitalized. The Company records a liability when environmental assessments and/or remedial efforts are probable and can be reasonably estimated. The estimated liability of the Company is not reduced for possible recoveries from insurance carriers and is undiscounted.

Foreign Currency Translation: The functional currency of the Company's subsidiaries outside the United States is the local currency. Financial statements are translated into U.S. dollars at year-end exchange rates for assets and liabilities and weighted-average exchange rates during the period for revenues and expenses. The resulting translation adjustments are recorded in Accumulated other comprehensive loss in the Consolidated Balance Sheets. Gains and losses resulting from foreign currency transactions, including intercompany transactions that are not considered long-term investments, are included in the Consolidated Statements of Operations.

Warranties: The Company estimates the amount of warranty claims on sold products that may be incurred based on current and historical data. The actual warranty expense could differ from the estimates made by the Company based on product performance. The following table presents the changes in the Company's product warranty liability:

	Year Ended December 31,		
	2022	2021	2020
Balance at January 1	$ 7.2	$ 6.4	$ 6.4
Claims paid during the year	(2.3)	(1.9)	(2.5)
Warranty expense	1.0	3.1	2.1
Foreign currency translation	(0.7)	(0.4)	0.4
Balance at December 31	$ 5.2	$ 7.2	$ 6.4

Weighted-Average Number of Shares Used in Computing (Loss) Earnings Per Share: The following table sets forth the weighted-average number of shares used in the computation of (loss) earnings per share:

	Year Ended December 31,		
	2022	2021	2020
		(In whole shares)	
Weighted average basic shares outstanding	12,091,712	12,007,000	12,061,419
Dilutive impact of employee stock awards	101,237	262,143	—
Weighted average diluted shares outstanding	12,192,949	12,269,143	12,061,419

Outstanding stock awards with exercise prices greater than the average price of the common shares are anti-dilutive and are not included in the computation of diluted earnings per share. Because the Company was in a continuing operations loss position for the year ended December 31, 2020, all common shares outstanding are anti-dilutive. For the years ended December 31, 2022, 2021 and 2020, the anti-dilutive shares were 0.2 million, 0.6 million and 0.6 million respectively.

Accounting Standards Adopted

In March 2020, the FASB issued ASU 2020-04, "Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting," which was issued in response to concerns about structural risks of interbank offered rates, and, particularly, the risk of cessation of the London Interbank Offered Rate ("LIBOR"). The guidance is effective upon issuance and may be adopted on any date on or after March 12, 2020. However, the relief is temporary and generally cannot be applied to contract modifications that occur after December 31, 2022 or hedging relationships entered into or evaluated after that date. As of December 31, 2022, the Company utilizes ongoing reference rates, including the Euro Interbank Offered Rate; the change from LIBOR had no impact on the financial statements of the Company. All loan agreements that previously utilized LIBOR have been updated to utilize an ongoing reference rate.

No other recently issued ASUs are expected to have a material impact on our results of operations, financial condition or liquidity.

NOTE 2 — Revenue

Substantially all of the Company's contracts have a single performance obligation to transfer products to or, in limited cases, perform services for the customer. Accordingly, the Company recognizes revenue when its obligations under the contract terms are satisfied and control transfers to the customer. Revenue is recognized at an amount that reflects the consideration the Company expects to receive in exchange for the good or service, including estimated provisions for rebates, discounts, returns and allowances. The Company sells its products both directly to customers, and in limited cases, through distributors, generally under agreements with payment terms between 30-90 days; the Company has no financing components.

The majority of the Company's revenue is derived from contracts (i) with an original contract length of one year or less, or (ii) for which it recognizes revenue at the amount at which it has the right to invoice as products or services are delivered. The Company has elected the practical expedient not to disclose the value of remaining performance obligations associated with these types of contacts.

The Company also has certain contracts which contain performance obligations that are immaterial in the context of the contract with the customer. The Company has elected the practical expedient not to assess whether these promised goods or services are performance obligations.

Supply Technologies provides our customers with Total Supply Management™, a proactive solutions approach that manages the efficiencies of every aspect of supplying production parts and materials to our customers' manufacturing floor, from strategic planning to program implementation. Within this segment, contracts routinely consist of a long-term agreement or master service agreement with quantity and pricing specified through individual purchase orders. Revenue is recognized at a point in time, which is the shipping point, as that is when control transfers to the customer.

Assembly Components designs, develops and manufactures: highly efficient, high pressure direct fuel injection fuel rails and pipes; fuel filler pipes that route fuel from the gas cap to the gas tank; and flexible multi-layer plastic and rubber assemblies used to transport fuel from the vehicle's gas tank and then, at extreme high pressure, to the engine's fuel injector nozzles. Within this segment, contracts routinely consist of a long-term agreement or master service agreement with quantity and pricing specified through individual purchase orders. Revenue is recognized at a point in time, which is at the shipping point, as that is when control transfers to the customer.

Engineered Products operates a diverse group of niche manufacturing businesses that design and manufacture a broad range of highly-engineered products, including induction heating and melting systems, pipe threading systems and forged and machined products. Engineered Products also produces and provides services and spare parts for the equipment it manufactures. In this segment, revenue is recognized for certain revenue streams at a point in time, and over time for other revenue streams. For point in time arrangements, revenue is recognized at the shipping point, as that is when control transfers to the customer. For over time arrangements, revenue is recognized over the time during which products are manufactured or services are performed, as control transfers under these arrangements over a period of time. Over time arrangements represent 16% of the Company's total consolidated sales for the year ended December 31, 2022. The Company uses the input method to calculate the contract revenues to be recognized, which utilizes costs incurred to date in relation to total expected costs to satisfy the Company's performance obligation under the contract. Incurred costs represent work performed and therefore best depict the transfer of control to the customer.

For over time arrangements, contract liabilities relate to advances or deposits received from the Company's customers before revenue is recognized. These amounts, which totaled $52.6 million and $51.7 million at December 31, 2022 and December 31, 2021, respectively, are recorded as Deferred revenue in the Consolidated Balance Sheets.

For over time arrangements, contract assets relate to revenue recognized in advance of billings to customers under long-term contracts accounted for under percentage of completion. These amounts, which totaled $56.7 million and $55.0 million at December 31, 2022 and December 31, 2021, respectively, are recorded as Unbilled contract revenue in the Consolidated Balance Sheets.

The Company has elected to account for shipping and handling as activities to fulfill the promise to transfer its products. As such, shipping and handling fees billed to customers in a sales transaction are recorded in Net sales, and shipping and handling costs incurred are recorded in Cost of sales. The Company has elected to exclude from Net sales any value-added, sales or other taxes which it collects concurrent with revenue-producing activities.

We disaggregate our revenue by product line and geographic region of our customer, as we believe these criteria best depict how the nature, amount, timing and uncertainty of our revenues and cash flows are affected by economic factors. See details in the tables below.

	Year Ended December 31,		
	2022	2021	2020
PRODUCT LINE			
Supply Technologies	$ 615.6	$ 539.5	$ 444.8
Engineered specialty fasteners and other products	95.9	80.0	65.3
Supply Technologies Segment	711.5	619.5	510.1
Fuel, rubber and plastic products	388.8	321.5	298.4
Assembly Components Segment[1]	388.8	321.5	298.4
Industrial equipment	277.3	247.0	238.2
Forged and machined products	115.3	89.0	105.4
Engineered Products Segment	392.6	336.0	343.6
Total revenues	$ 1,492.9	$ 1,277.0	$ 1,152.1

(1) - Our continuing operations exclude the results of our Aluminum Products business unit, which is held-for-sale as of December 31, 2022 and presented in discontinued operations for all periods presented. The Aluminum Products business unit was previously included in our Assembly Components segment.

	Supply Technologies Segment	Assembly Components Segment	Engineered Products Segment	Total Revenues
Year Ended December 31, 2022				
GEOGRAPHIC REGION				
United States	$ 432.8	$ 282.1	$ 222.2	$ 937.1
Europe	126.1	16.4	64.9	207.4
Asia	67.1	21.9	60.2	149.2
Mexico	69.4	37.7	15.7	122.8
Canada	12.4	27.5	21.4	61.3
Other	3.7	3.2	8.2	15.1
Total	$ 711.5	$ 388.8	$ 392.6	$ 1,492.9
Year Ended December 31, 2021				
GEOGRAPHIC REGION				
United States	$ 370.3	$ 207.9	$ 173.3	$ 751.5
Europe	114.0	13.8	64.5	192.3
Asia	58.1	26.2	51.8	136.1
Mexico	62.4	48.0	17.6	128.0
Canada	11.5	24.1	18.7	54.3
Other	3.2	1.5	10.1	14.8
Total	$ 619.5	$ 321.5	$ 336.0	$ 1,277.0
Year Ended December 31, 2020				
GEOGRAPHIC REGION				
United States	$ 314.0	$ 198.5	$ 179.1	$ 691.6
Europe	83.8	12.7	64.5	161.0
Asia	43.3	29.6	59.3	132.2
Mexico	55.4	27.3	9.8	92.5
Canada	9.8	28.9	19.2	57.9
Other	3.8	1.4	11.7	16.9
Total	$ 510.1	$ 298.4	$ 343.6	$ 1,152.1

NOTE 3 — Segments

The Company operates three reportable segments: Supply Technologies, Assembly Components and Engineered Products. During the fourth quarter of 2022, we determined that the Aluminum Products business met the held-for-sale and discontinued operations accounting criteria. The Aluminum Products business was previously reported in the Company's Assembly Components segment and now is shown as discontinued operations for all periods presented.

For purposes of measuring business segment performance, the chief operating decision maker utilizes segment operating (loss) income, which is defined as revenues less expenses identifiable to the product lines within each segment. The Company does not allocate items that are non-operating; unusual in nature; or are corporate costs, which include but are not limited to executive and share-based compensation and corporate office costs. Segment operating (loss) income reconciles to consolidated (loss) income before income taxes by deducting corporate costs, certain non-cash and/or non-operating items; Other components of pension income and other postretirement benefits ("OPEB") expense, net; and interest expense, net.

Results by business segment were as follows:

	Year Ended December 31,		
	2022	2021	2020
Net sales:			
Supply Technologies	$ 711.5	$ 619.5	$ 510.1
Assembly Components	388.8	321.5	298.4
Engineered Products	392.6	336.0	343.6
	$ 1,492.9	$ 1,277.0	$ 1,152.1
Segment operating (loss) income:			
Supply Technologies	$ 45.7	$ 42.8	$ 30.2
Assembly Components	1.1	(2.6)	10.9
Engineered Products	14.8	(12.2)	3.5
Total segment operating income	61.6	28.0	44.6
Corporate costs	(30.6)	(26.4)	(26.1)
Gains on sales of assets, net	2.4	14.7	—
Operating income	33.4	16.3	18.5
Other components of pension income and other postretirement benefits expense, net	11.1	9.7	7.3
Interest expense, net	(33.8)	(27.1)	(27.6)
Income (loss) from continuing operations before income taxes	$ 10.7	$ (1.1)	$ (1.8)

	Year Ended December 31,		
	2022	2021	2020
Capital expenditures:			
Supply Technologies	$ 3.4	$ 4.1	$ 6.5
Assembly Components	8.2	7.6	7.1
Engineered Products	15.2	10.4	6.5
Corporate	0.1	0.2	0.2
	$ 26.9	$ 22.3	$ 20.3
Depreciation and amortization expense:			
Supply Technologies	$ 6.0	$ 5.5	$ 5.1
Assembly Components	13.7	14.7	13.1
Engineered Products	10.1	10.2	9.6
Corporate	0.4	0.4	0.4
	$ 30.2	$ 30.8	$ 28.2
Identifiable assets:			
Supply Technologies	$ 465.7	$ 398.5	$ 347.6
Assembly Components	306.1	310.6	297.5
Engineered Products	436.9	414.9	439.7
Corporate	120.7	113.9	112.1
Assets held-for-sale by discontinued operations	107.2	122.1	103.6
	$ 1,436.6	$ 1,360.0	$ 1,300.5

At December 31, 2022, 2021 and 2020, approximately 71%, 71% and 70%, respectively, of the Company's assets (including assets held-for-sale) were located in the United States.

NOTE 4 — Discontinued Operations

A business is classified as held-for-sale when management having the authority to approve the action commits to a plan to sell the business, the sale is probable to occur during the next 12 months at a price that is reasonable in relation to its current fair value, and certain other criteria of ASC 360 are met. A business classified as held-for-sale is recorded at the lower of its carrying amount or estimated fair value less cost to sell. When the carrying amount of the business exceeds its estimated fair value less costs to sell, a loss is recognized and updated each reporting period as appropriate. A business held-for-sale is classified as discontinued operations if the disposal group is a component of an entity; the component of an entity meets the held-for-sale criteria of ASC 360; and disposal of the component of an entity represents a strategic shift that will have a major effect on the entity's operations and financial results.

During the fourth quarter of 2022, the Company determined that the Aluminum Products business met the held-for-sale and discontinued operations accounting criteria. Accordingly, the Company has reported the held-for-sale assets and liabilities and the operating results of Aluminum Products in discontinued operations for all periods presented in this Annual Report. The Aluminum Products business was previously reported in the Company's Assembly Components segment until meeting the discontinued operations criteria. See Note 9 for discussion of the entry into a memorandum of understanding (the "MOU") related to the potential sale of this business.

	Year Ended December 31,		
	2022	2021	2020
Net sales	$ 210.4	$ 161.0	$ 143.1
Cost of sales	220.0	169.3	135.7
Selling, general and administrative	14.2	11.5	10.2
Restructuring and other special charges	3.9	4.0	—
Goodwill impairment	—	4.6	—
Operating loss	(27.7)	(28.4)	(2.8)
Interest expense[1]	(2.8)	(3.0)	(2.7)
Loss from operation of discontinued operations	(30.5)	(31.4)	(5.5)
Loss on classification as held-for-sale	(1.8)	—	—
Income tax benefit	8.0	5.5	1.2
Loss from discontinued operations, net of tax	$ (24.3)	$ (25.9)	$ (4.3)

(1) - Interest expense includes an allocation of interest that is not directly attributable to our Aluminum Products business, totaling $2.5 million, $2.6 million and $2.3 million in 2022, 2021 and 2020, respectively.

The following represents the details of assets and liabilities held-for-sale in each period:

	December 31, 2022	December 31, 2021
	(In millions, except share data)	
ASSETS		
Current assets:		
Accounts receivable, net	$ 24.9	$ 31.7
Inventories, net	30.2	30.5
Other current assets	1.2	3.0
Current assets held-for-sale[1]	56.3	65.2
Property, plant and equipment, net	46.1	49.9
Operating lease right-of-use assets	4.8	7.0
Long-term assets held-for-sale[1]	50.9	56.9
Total assets held-for-sale	$ 107.2	$ 122.1
LIABILITIES		
Current liabilities:		
Trade accounts payable	$ 22.8	$ 15.7
Current portion of finance lease liabilities	2.4	4.4
Current portion of operating lease liabilities	2.3	2.2
Other accrued expenses	10.7	10.6
Current liabilities held-for-sale[1]	$ 38.2	$ 32.9
Long-term liabilities, less current portion:		
Long-term finance lease liabilities	3.1	4.6
Long-term operating lease liabilities	2.5	4.8
Long-term liabilities held-for-sale[1]	5.6	9.4
Total liabilities held-for-sale	$ 43.8	$ 42.3

(1) - We reasonably expect to finalize the sale of the Aluminum Products business within one year from the December 31, 2022 balance sheet date, and therefore we have presented all assets and liabilities held-for-sale as current as of that date.

NOTE 5 — Plant Closure and Consolidation

During 2022, 2021 and 2020, the Company incurred the following expenses related to plant closure and consolidation in connection with its profit-improvement actions across the businesses.

	Facility Related Costs	Severance and Other	Total
2022:			
Assembly Components	$ 5.6	$ —	$ 5.6
Engineered Products	8.2	0.2	8.4
Total	$ 13.8	$ 0.2	$ 14.0
2021:			
Assembly Components	$ 3.8	$ —	$ 3.8
Engineered Products	10.8	0.9	11.7
Total	$ 14.6	$ 0.9	$ 15.5
2020:			
Assembly Components	$ 3.2	$ 0.9	$ 4.1
Engineered Products	1.2	1.0	2.2
Total	$ 4.4	$ 1.9	$ 6.3

The actions in the Assembly Components segment were primarily in connection with actions taken to close and consolidate its extrusion operations in Tennessee and its fuel operations in Michigan, to relocate certain production to lower-cost facilities with open capacity, and to complete other cost-reduction actions.

The actions in the Engineered Product segment were primarily in connection with plant closure and consolidation of multiple locations, and to complete other cost-reduction actions in this segment.

The Company expects to incur expenses of approximately $2.0 million to $3.0 million in 2023 in connection with its plant closure and consolidation activities.

In connection with the above actions, the Company sold certain real estate for cash proceeds and gains on sales as follows. Gains are recorded on a separate line in the Consolidated Statements of Operations and are excluded from segment operating income.

	Cash Proceeds from Sales of Assets	Net Book Value	Gains on Sales of Assets
2022	$ 9.5	$ 7.1	$ 2.4
2021	$ 20.3	$ 5.6	$ 14.7
2020	$ 1.4	$ 1.4	$ —

NOTE 6 — Acquisitions

In July 2022, the Company acquired Charter Automotive (Changzhou) Co. Ltd. (“Charter”) for $9.3 million, net of cash acquired. Charter, which is included in our Supply Technologies segment, is headquartered in Changzhou, China and is strategic to our existing fastener manufacturing business, will accelerate the global growth of the Company’s proprietary products to electric vehicle and other auto-related platforms.

The allocation of the purchase price of Charter was finalized in 2022 and is summarized as follows:

	(In millions)
Accounts receivable	$ 2.6
Inventories	3.0
Property, plant and equipment	4.3
Other current assets	0.9
Accounts payable and accrued expenses	(1.5)
Total purchase price	$ 9.3

The Company paid $6.0 million for Charter in 2022 and is scheduled to pay the remaining balance throughout 2023 and 2024.

In August 2022, the Company acquired Southern Fasteners & Supply, Inc. (“Southern Fasteners”) for $18.7 million, net of cash acquired. The purchase price included cash of $16.7 million paid at closing plus a $2.0 million note that will be paid to the seller over the next two years. Southern Fasteners, which is included in our Supply Technologies segment, is headquartered in Winston-Salem, North Carolina. Southern Fasteners provides commercial fasteners and industrial supplies to a diverse base of Maintenance, Repair and Operations (“MRO”) and Original Equipment Manufacturing (“OEM”) customers throughout the United States and specializes in the design of customized inventory programs for its customers. Southern Fasteners complements Supply Technologies’ continued efforts to grow the initiatives centered around industrial supply and MRO products to our global OEM customer base.

The allocation of the purchase price of Southern Fasteners was finalized in 2022 and is summarized as follows (including the $2.0 million of notes payable to the seller):

	(In millions)
Accounts receivable	$ 3.3
Inventories	5.0
Property, plant and equipment	0.4
Other current assets	0.3
Intangible assets	6.0
Goodwill	6.2
Accounts payable and accrued expenses	(2.5)
Total purchase price (including notes payable to seller of $2.0 million)	$ 18.7

In 2021, the Company acquired NYK Component Solutions Limited ("NYK"). NYK, which is included in our Supply Technologies segment, is headquartered in Southampton, United Kingdom and is a leading distributor of circular connectors and accessories for use in aerospace, defense, and other industrial applications. NYK provides complementary products to our existing products in Supply Technologies.

At closing, the Company paid $5.4 million in cash, net of cash acquired. In addition, the purchase agreement stipulates potential contingent consideration of up to an additional $1.8 million based on earnings before interest, taxes, depreciation and amortization during the two years following the acquisition date. The Company paid $0.6 million during 2022, which is included in Business Acquisitions in the Consolidated Statements of Cash Flows. As of December 31, 2022, the Company expects to pay an additional $1.2 million of the contingent consideration to the seller in 2023.

NOTE 7 — Goodwill

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

	Supply Technologies	Assembly Components	Engineered Products	Total
Balance at January 1, 2021	$ 15.1	$ 51.5	$ 39.7	$ 106.3
Acquisition	1.5	—	—	1.5
Foreign currency translation	(0.3)	—	(1.5)	(1.8)
Balance at December 31, 2021	16.3	51.5	38.2	106.0
Acquisitions	6.2	—	—	6.2
Foreign currency translation	(1.4)	(0.2)	(1.7)	(3.3)
Balance at December 31, 2022	$ 21.1	$ 51.3	$ 36.5	$ 108.9

NOTE 8 — Other Intangible Assets

	December 31, 2022				December 31, 2021		
	Weighted Average Remaining Useful Life (Years)	Gross Value	Accumulated Amortization	Net Value	Gross Value	Accumulated Amortization	Net Value
Customer relationships	8.6	$ 93.8	$ 55.2	$ 38.6	$ 90.4	$ 50.0	$ 40.4
Indefinite-lived tradenames	*	25.7	*	25.7	24.7	*	24.7
Technology	12.5	22.4	8.8	13.6	23.1	7.6	15.5
Other	4.9	4.8	4.0	0.8	4.9	3.8	1.1
Total		$ 146.7	$ 68.0	$ 78.7	$ 143.1	$ 61.4	$ 81.7

* Not applicable, as these tradenames have an indefinite life.

Amortization expense of other intangible assets as follows:

	Year Ended December 31, 2022	2021	2020
Amortization expense	$ 6.6	$ 6.9	$ 6.2

We estimate amortization expense for the five years subsequent to 2022 as follows:

2023	$ 6.7
2024	$ 6.5
2025	$ 6.5
2026	$ 6.1
2027	$ 6.1

NOTE 9 — Financing Arrangements

Debt consists of the following:

	Maturity Date	Interest Rate at December 31, 2022	Carrying Value at December 31, 2022	Carrying Value at December 31, 2021
Senior Notes due 2027	April 15, 2027	6.625%	$ 350.0	$ 350.0
Revolving credit facility	November 26, 2024	5.40%	285.3	221.1
Finance leases	Various	Various	18.5	8.5
Other	Various	Various	15.3	17.5
Total debt			669.1	597.1
Less: Current portion of long-term debt and short-term debt			(10.9)	(6.3)
Less: Unamortized debt issuance costs			(3.1)	(3.9)
Total long-term debt, net			$ 655.1	$ 586.9

In addition to debt listed above, on December 30, 2022, the Company entered into the MOU with a third party pursuant to which the third party would purchase our Aluminum Products business. The sale of the Aluminum Products business is subject to the successful completion of a definitive purchase agreement and other customary conditions. In connection with the MOU, the Company also entered into a financing arrangement with the third party pursuant to which the Company received a portion of the estimated purchase price of the Aluminum Products business, including $20.0 million of cash and a promissory note in the principal amount of $25.0 million, and recorded a financing arrangement liability of $45.0 million. The Company used the $20.0 million from this financing arrangement to repay indebtedness under its revolving credit facility. If a definitive purchase agreement between the parties is not entered into or the sale is not successfully consummated, the promissory note will be cancelled and the Company will repay the third party $20.0 million, less a $0.8 million break-up fee.

Park-Ohio's Seventh Amended and Restated Credit Agreement (as amended, the "Credit Agreement") provides for a revolving credit facility in the amount of $405.0 million, including a $40.0 million Canadian revolving subcommitment and a European revolving subcommitment in the amount of $30.0 million. Pursuant to the Credit Agreement, the Company has the option to increase the availability under the revolving credit facility by an aggregate incremental amount up to $70.0 million. The Credit Agreement matures on November 16, 2024. As of December 31, 2022, we had borrowing availability of $102.3 million under the Credit Agreement.

In April 2017, Park-Ohio completed the issuance, in a private placement, of $350.0 million aggregate principal amount of 6.625% Senior Notes due 2027 (the "Notes"). Interest on the Notes is payable semi-annually in arrears on April 15 and October 15 of each year, and the Notes mature on April 15, 2027. The Notes are unsecured senior obligations of Park-Ohio and are guaranteed on an unsecured senior basis by the 100% owned material domestic subsidiaries of Park-Ohio.

On August 13, 2015, the Company entered into a finance lease agreement (the "Lease Agreement"). The Lease Agreement provides the Company up to $50.0 million for finance leases. Finance lease obligations of $5.1 million were borrowed under the Lease Agreement as of December 31, 2022 to acquire machinery and equipment. See Note 13 for additional disclosures about finance leases. As of December 31, 2022, the Company had additional finance leases totaling $13.4 million.

On October 21, 2015, the Company, through its subsidiary, Southwest Steel Processing LLC, entered into a financing agreement with the Arkansas Development Finance Authority. The agreement provides the Company the ability to borrow up to $11.0 million for expansion of its manufacturing facility in Arkansas. The loan matures in September 2025. The Company has borrowed $4.3 million under this agreement as of December 31, 2022.

The following table represents fair value information of the Notes, classified as Level 1, at December 31, 2022 and 2021. The fair value was estimated using quoted market prices.

	December 31, 2022	December 31, 2021
Carrying amount	$ 350.0	$ 350.0
Fair value	$ 227.5	$ 337.6

Maturities of short-term and long-term debt, excluding finance leases, during each of the five years subsequent to December 31, 2022 are as follows:

2023	$ 6.6
2024	$ 288.5
2025	$ 3.0
2026	$ 1.0
2027	$ 350.4

Foreign subsidiaries of the Company had $10.9 million of borrowings at December 31, 2022 and $9.8 million at December 31, 2021.

We had outstanding bank guarantees and letters of credit under our credit arrangements of approximately $41.0 million at December 31, 2022 and $39.7 million at December 31, 2021.

The weighted average interest rate on all debt was approximately 5.1% in 2022, 4.8% in 2021 and 5.0% in 2020.

NOTE 10 — Income Taxes

(Loss) income from continuing operations before income taxes consists of the following:

	Year Ended December 31,		
	2022	2021	2020
United States	$ (21.3)	$ (26.8)	$ (22.2)
Outside the United States	32.0	25.7	20.4
	$ 10.7	$ (1.1)	$ (1.8)

Income taxes consists of the following:

	Year Ended December 31,		
	2022	2021	2020
Current (benefit) expense:			
Federal	$ (1.6)	$ (4.9)	$ (16.0)
State	(0.2)	0.3	0.4
Foreign	9.4	9.4	7.4
	7.6	4.8	(8.2)
Deferred expense (benefit):			
Federal	(8.0)	(5.9)	7.3
State	0.8	(0.6)	(0.1)
Foreign	(1.1)	0.7	(0.3)
	(8.3)	(5.8)	6.9
Income tax benefit	$ (0.7)	$ (1.0)	$ (1.3)

The Coronavirus Aid, Relief, and Economic Security ("CARES") Act was enacted on March 27, 2020. The CARES Act was a substantial tax-and-spending package intended to provide additional economic stimulus to address the impact of the COVID-19 pandemic. Significant impacts of the CARES Act include the ability to carry back a net operating loss five years and an increase of the Internal Revenue Code Section 163(j) interest expense disallowance limitations from 30% to 50% of adjusted taxable income. The Company has recorded a significant benefit for the impact of the net operating loss carryback, which provides for refunds related to tax years in which the U.S. tax rate was 35% versus the current U.S. tax rate of 21%. This additional tax benefit of 14% increased the 2020 tax benefit.

In 2022, the Company completed a research and development tax credit study for the current year as well as US tax years open under statute. The completed study resulted in additional research and development tax credit benefits being recorded in the current year.

A reconciliation of income tax expense (benefit) computed by applying the statutory federal income tax rate to income tax benefit as recorded is as follows:

	Year Ended December 31,		
	2022	2021	2020
Income tax expense (benefit) at U.S. statutory rate	$ 2.3	$ (0.2)	$ (0.4)
Effect of state income taxes, net	0.3	(0.3)	(0.3)
Effect of foreign operations	3.0	1.9	1.5
Valuation allowance	0.8	(0.1)	0.6
Uncertain tax positions	0.4	(0.3)	(1.0)
Non-deductible items	(0.2)	0.9	1.5
Equity compensation	1.4	0.6	0.6
CARES Act NOL carryback	—	(3.1)	(5.3)
Foreign tax credit	(4.1)	(1.4)	(0.8)
Other tax credits	(5.6)	(0.4)	(0.3)
GILTI	1.8	1.4	1.8
FDII	(0.2)	—	—
Other, net	(0.6)	—	0.8
Income tax benefit as recorded	$ (0.7)	$ (1.0)	$ (1.3)

Significant components of the Company's net deferred income tax assets and liabilities are as follows:

	Year Ended December 31,	
	2022	2021
Deferred income tax assets:		
Postretirement benefit obligation	$ 0.4	$ 0.5
Inventory	12.8	8.4
Net operating loss and credit carryforwards	17.8	15.4
Operating lease liabilities	13.3	14.1
Compensation	2.3	3.4
Capitalized research and development expenditures	10.8	—
Disallowed interest	7.9	4.9
Other	4.2	5.1
Total deferred income tax assets	69.5	51.8
Deferred income tax liabilities:		
Depreciation	19.3	20.6
Pension	14.1	18.8
Intangible assets	16.2	17.3
Lease right-of-use assets	13.3	14.0
Other	3.1	2.0
Total deferred income tax liabilities	66.0	72.7
Net deferred income tax assets (liabilities) prior to valuation allowances	3.5	(20.9)
Valuation allowances	(8.6)	(6.1)
Net deferred income tax liability	$ (5.1)	$ (27.0)

At December 31, 2022, the Company has U.S., state and foreign net operating loss carryforwards as well as U.S. foreign tax credit carryforwards and research and development tax credit carryforwards for income tax purposes. The foreign net operating loss carryforward is $32.5 million, of which $14.7 million expires between 2023 and 2042 and the remainder has no expiration date. The Company has a tax benefit from a state net operating loss carryforward of $3.3 million, of which, $2.9 million expires between 2023 and 2042 and the remainder has no expiration date. The Company also has a non-consolidated U.S. net operating loss carryforward of $0.5 million that expires between 2034 and 2037. The Company has recorded a valuation allowance of $6.2 million against these net operating loss carryforwards in jurisdictions where those losses are not expected to be realized. The foreign tax credit carryforward is $1.8 million and expires between 2030 and 2032. The foreign tax credit carryforward has a full valuation allowance as the Company is not expected to generate sufficient foreign source income to utilize the credit before expiration. The U.S. research and development tax credit carryforward is $2.5 million and expires between 2041 and 2042.

As of December 31, 2022 and 2021, the Company was in a cumulative three-year loss position. The Company has determined that it was more likely than not that its U.S. deferred tax assets will be realized, except for the foreign tax credit as noted above. The Company reviews all valuation allowances related to deferred tax assets and will reverse these valuation allowances, partially or totally, when appropriate under ASC 740.

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

	2022	2021	2020
Unrecognized Tax Benefit — January 1	$ 1.0	$ 2.1	$ 3.7
Gross Increases to Tax Positions Related to Prior Years	0.3	—	0.1
Gross Decreases to Tax Positions Related to Prior Years	—	—	(0.5)
Gross Decreases related to settlements with taxing authorities	—	(0.1)	—
Expiration of Statute of Limitations	(0.5)	(1.0)	(1.2)
Unrecognized Tax Benefit — December 31	$ 0.8	$ 1.0	$ 2.1

The total amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate is $0.1 million at both December 31, 2022 and December 31, 2021. The Company recognizes accrued interest and penalties related to unrecognized tax benefits in income tax expense. During the years ended December 31, 2022 and 2021, the Company recognized a tax benefit of approximately $0.1 million, in both years, in net interest and penalties due to the expiration of various uncertain tax positions. The Company had approximately $0.1 million for the payment of interest and penalties accrued at both December 31, 2022 and 2021. It is reasonably possible that, within the next twelve months, the amount of gross unrecognized tax benefits could be reduced by approximately $0.4 million as a result of the closure of tax statutes related to existing uncertain tax positions.

The Company is subject to taxation in the U.S. and various state and foreign jurisdictions. The Company's tax years for 2014 through 2022 remain open for examination by the Internal Revenue Service and 2007 through 2022 remain open for examination by various state and foreign taxing authorities.

As of December 31, 2022, the Company has accumulated undistributed earnings generated by our foreign subsidiaries of approximately $252.1 million. Because $135.9 million of such earnings have previously been subject to the one-time transition taxes required by the U.S. Tax Cuts and Jobs Act (the "TCJA"), any additional taxes due with respect to such earnings or the excess of the amount for financial reporting over the tax basis of our foreign investments would generally be limited to foreign withholding and state income taxes. We intend, however, to indefinitely reinvest these earnings and expect future U.S. cash generation to be sufficient to meet future U.S. cash needs.

NOTE 11 — Stock-Based Compensation

The Company follows the provisions of ASC 718, "Compensation — Stock Compensation" ("ASC 718"), which requires all share-based payments to employees to be recognized in the income statement based on their grant date fair values. Compensation expense for awards with service conditions only that are subject to graded vesting is recognized on a straight-line basis over the term of the vesting period.

A summary of time-based and performance-based activity for the year ended December 31, 2022 is as follows:

	Time-Based		Performance-Based	
	Number of Shares (in whole shares)	Weighted Average Grant Date Fair Value	Number of Shares (in whole shares)	Weighted Average Grant Date Fair Value
Outstanding — beginning of year	655,093	$ 24.62	50,000	$ 32.55
Granted[a]	342,622	15.97	1,333	13.88
Vested	(264,224)	24.66	(1,333)	13.88
Cancelled or expired	(17,249)	22.08	—	—
Outstanding — end of year	716,242	$ 20.53	50,000	$ 32.55

(a) Included in the granted amount are 12,500 restricted share units.

The Company recognized compensation expense of $7.2 million, $6.5 million and $6.1 million for the years ended December 31, 2022, 2021 and 2020, respectively, relating to time-based awards and performance-based awards.

The 50,000 share performance-based award in 2019 relates to a five-year cumulative profit target through 2023. Through December 31, 2022, no compensation expense was recognized as achievement of the performance target is deemed not probable.

The total fair value of restricted shares and share units that vested during the years ended December 31, 2022, 2021 and 2020 was $6.5 million, $6.7 million and $6.4 million, respectively.

As of December 31, 2022, the Company had unrecognized compensation expense of $8.1 million related to restricted shares. The unrecognized compensation expense is expected to be recognized over a total weighted average period of 1.8 years.

NOTE 12 — Commitments and Contingencies

The Company is subject to a variety of claims, suits, investigations and administrative proceedings with respect to commercial, premises liability, product liability, employment, personal injury and environmental matters arising from the ordinary course of business. The Company records a liability for loss contingencies in the consolidated financial statements when a loss is known or considered probable and the amount can be reasonably estimated. Our provisions are based on historical experience, current information and legal advice, and they may be adjusted in the future based on new developments. Estimating probable losses requires the analysis of multiple forecasted factors that often depend on judgments and potential actions by third parties. Although it is not possible to predict with certainty the ultimate outcome or cost of these matters, the Company believes they will not have a material adverse effect on our consolidated financial statements.

Our subsidiaries are involved in a number of contractual and warranty-related disputes. We believe that appropriate liabilities for these contingencies have been recorded; however, actual results may differ materially from our estimates.

In addition to the routine claims, suits, investigations and proceedings and asserted claims noted above, we are also a co-defendant in approximately 112 cases asserting claims on behalf of approximately 162 plaintiffs alleging personal injury as a result of exposure to asbestos. These asbestos cases generally relate to production and sale of asbestos-containing products and allege various theories of liability, including negligence, gross negligence and strict liability, and seek compensatory and, in some cases, punitive damages. In every asbestos case in which we are named as a party, the complaints are filed against multiple named defendants. To the extent that any specific amount of damages is sought, the amount applies to claims against all named defendants.

Historically, we have been dismissed from asbestos cases on the basis that the plaintiff incorrectly sued one of our subsidiaries or because the plaintiff failed to identify any asbestos-containing product manufactured or sold by us or our subsidiaries. We intend to vigorously defend these asbestos cases and believe we will continue to be successful in being dismissed from such cases. However, it is not possible to predict the ultimate outcome of asbestos-related lawsuits, claims and proceedings due to the unpredictable nature of personal injury litigation.

Despite this uncertainty, and although our results of operations and cash flows for a particular period could be adversely affected by asbestos-related lawsuits, claims and proceedings, management believes that the ultimate resolution of these matters will not have a material adverse effect on our financial condition, liquidity or results of operations. Among the factors management considered in reaching this conclusion were: (a) our historical success in being dismissed from these types of lawsuits on the bases mentioned above; (b) many cases have been improperly filed against one of our subsidiaries; (c) in many cases the plaintiffs have been unable to establish any causal relationship to us or our products or premises; (d) in many cases, the plaintiffs have been unable to demonstrate that they have suffered any identifiable injury or compensable loss at all or that any injuries that they have incurred did in fact result from alleged exposure to asbestos; and (e) the complaints assert claims against multiple defendants and, in most cases, the damages alleged are not attributed to individual defendants. Additionally, we do not believe that the amounts claimed in any of the asbestos cases are meaningful indicators of our potential exposure because the amounts claimed typically bear no relation to the extent of the plaintiff's injury, if any.

NOTE 13 - Lease Arrangements

We lease manufacturing facilities, warehouse space, office space, machinery and equipment, information technology equipment and vehicles under operating leases. We also lease one building and machinery and numerous equipment under finance leases. For operating leases with terms greater than 12 months, we record the operating right-of-use asset and related lease liability at the present value of lease payments over the lease term. In certain real estate leases, we have options to renew lease terms, generally at our sole discretion. We evaluate renewal options at the lease commencement date to determine if we are reasonably certain to exercise the option on the basis of economic factors.

The discount rate implicit in our operating leases is generally not determinable, and therefore the Company determines the discount rate for each lease based on its incremental borrowing rate. The incremental borrowing rate is calculated based on lease term, currency and collateral adjustments.

During 2022, the Company obtained right-of-use assets in exchange for new operating lease liabilities of $12.2 million.

Balance Sheet as of December 31, 2022 and 2021

	Classification on the Balance Sheet	December 31, 2022	December 31, 2021
Assets			
Operating lease assets	Operating lease right-of-use assets	$ 54.7	$ 56.4
Finance lease assets	Property, plant and equipment, net	23.3	9.4
Total lease assets		$ 78.0	$ 65.8
Liabilities			
Current			
Operating	Current portion of operating lease liabilities	$ 11.2	$ 10.6
Finance	Current portion of long-term debt and short-term debt	4.3	2.5
Noncurrent			
Operating	Long-term operating lease liabilities	43.7	45.9
Finance	Long-term debt	14.2	6.0
Total lease liabilities		$ 73.4	$ 65.0
Weighted-average remaining lease term (in years)			
Operating leases		6.2	6.7
Finance leases		5.6	2.1
Weighted-average discount rate			
Operating leases		5.8%	6.0%
Finance leases		5.6%	2.1%

Lease Expense for 2022, 2021 and 2020

Operating lease expense is recognized on a straight-line basis over the lease term, with variable payments recognized in the period those payments are incurred.

	2022	2021	2020
Finance lease expense			
Amortization of right-of-use assets	$ 3.2	$ 1.4	$ 1.7
Interest on lease liabilities	0.3	0.3	0.1
Operating lease expense	15.2	14.7	14.4
Other lease expense(1)	6.6	7.9	6.4
Total lease expense	$ 25.3	$ 24.3	$ 22.6

(1) - Other lease expense includes variable lease costs and short-term lease costs.

Cash Flow Information for 2022, 2021 and 2020

	2022	2021	2020
Amounts included in the Consolidated Statements of Cash Flows:			
Operating cash outflows for operating leases	$ (14.5)	$ (14.6)	$ (14.5)
Operating cash outflows for finance leases	$ (0.3)	$ (0.3)	$ (0.1)
Financing cash inflows (outflows) for finance leases	$ 8.5	$ (0.3)	$ 3.9

Maturities of Lease Liabilities as of December 31, 2022, were as follows:

	Operating Leases	Finance Leases
2023	$ 13.6	$ 4.6
2024	12.3	3.9
2025	9.5	2.6
2026	7.3	2.1
2027	6.2	2.0
Thereafter	15.0	5.9
Total lease payments	63.9	21.1
Less: amount of lease payments representing interest	(9.0)	(2.6)
Total present value of future lease payments	$ 54.9	$ 18.5

Certain of the Company’s leases are with related parties at an annual rental expense of approximately $3.3 million. Transactions with related parties are not material to the Company’s financial position, results of operations or cash flows.

NOTE 14 — Pensions and Postretirement Benefits

The Company and its subsidiaries have pension plans, principally noncontributory defined benefit or noncontributory defined contribution plans, covering substantially all employees. In addition, the Company has an unfunded postretirement benefit plan. One of its defined benefit plans, covering most U.S. employees not covered by collective bargaining agreements, utilizes a cash balance formula. Under a cash balance formula, a plan participant accumulates a retirement benefit consisting of pay credits that are based upon a percentage of current eligible earnings and current interest credits. For the remaining defined benefit plans, benefits are based on the employee’s years of service. For the defined contribution plans, the costs charged to operations and the amount funded are based upon a percentage of the covered employees’ compensation.

The Company’s objectives for the pension plan are to monitor the funded ratio; create general investment goals with regard to acceptable risk and liquidity needs ensuring the long-term interests of participants and beneficiaries are considered; and manage risk by minimizing the short-term and long-term risk of actual expenses and contribution requirements.

The following tables set forth the changes in benefit obligation, plan assets, funded status and amounts recognized in the consolidated balance sheet for the defined benefit pension and postretirement benefit plans as of December 31, 2022 and 2021:

	Pension Benefits		Postretirement Benefits	
	2022	2021	2022	2021
Change in benefit obligation				
Benefit obligation at beginning of year	$ 83.7	$ 86.5	$ 6.9	$ 7.9
Service cost	4.3	4.2	—	—
Interest cost	1.8	1.4	0.1	0.1
Actuarial gains	(15.8)	(2.5)	(0.8)	(0.5)
Benefits and expenses paid	(6.4)	(5.9)	(1.0)	(0.6)
Benefit obligation at end of year	$ 67.6	$ 83.7	$ 5.2	$ 6.9
Change in plan assets				
Fair value of plan assets at beginning of year	$ 169.9	$ 161.3	$ 4.5	$ —
Actual return on plan assets	(32.0)	19.6	0.1	—
Company contributions	—	—	—	5.1
Cash transfer to fund postretirement benefit payments	—	(5.1)	—	—
Benefits and expenses paid	(6.4)	(5.9)	(1.0)	(0.6)
Fair value of plan assets at end of year	$ 131.5	$ 169.9	$ 3.6	$ 4.5
Funded (underfunded) status of the plans	$ 63.9	$ 86.2	$ (1.6)	$ (2.4)

Amounts recognized in the consolidated balance sheets consist of:

	Pension Benefits		Postretirement Benefits	
	2022	2021	2022	2021
Pension assets	$ 63.9	$ 86.2	$ —	$ —
Other current liabilities	—	—	—	0.1
Other long-term liabilities	—	—	1.6	2.3
	$ 63.9	$ 86.2	$ 1.6	$ 2.4
Amounts recognized in Accumulated other comprehensive loss				
Net actuarial loss	$ 39.9	$ 10.8	$ 2.4	$ 2.2
Net prior service cost	0.1	0.2	—	—
Accumulated other comprehensive loss	$ 40.0	$ 11.0	$ 2.4	$ 2.2

The pension plan weighted-average asset allocation at December 31, 2022 and 2021 and target allocation for 2023 are as follows:

	Target 2023	Plan Assets 2022	Plan Assets 2021
Asset Category			
Equity securities	45-75%	56.0%	61.0%
Debt securities	15-35%	16.0%	17.0%
Other	0-25%	28.0%	22.0%
	100%	100%	100%

The following table sets forth, by level within the fair value hierarchy, the pension plans assets:

	2022		2021	
	Level 1	Total	Level 1	Total
Common stock	$ 24.3	$ 24.3	$ 32.4	$ 32.4
Equity securities	47.1	47.1	65.3	65.3
Foreign stock	4.9	4.9	7.8	7.8
U.S. Government obligations	6.9	6.9	8.9	8.9
Fixed income securities	4.0	4.0	6.4	6.4
Corporate bonds	10.5	10.5	14.9	14.9
Cash and cash equivalents	7.7	7.7	6.8	6.8
Total	$ 105.4		$ 142.5	
Investments measured at net asset value:				
Common collective trusts		7.1		5.8
Hedge funds		22.6		26.1
Postretirement benefit assets		(3.6)		(4.5)
Total assets at fair value		$ 131.5		$ 169.9

Valuation Methodologies: Following is a description of the valuation methodologies used for pension plan assets measured at fair value. There have been no changes in the methodologies used at December 31, 2022 and 2021.

Common stock, equity securities and foreign stock - These securities consist of direct investments in the stock of publicly-traded companies. Such investments are valued based on the closing price reported in an active market on which the individual securities are traded. As such, the direct investments are classified as Level 1.

U.S. Government obligations, fixed income securities and corporate bonds - Valued at the closing price of each security.

Cash equivalents - Consists of primarily money market funds and certificates of deposit, for which book value equals fair value.

Common collective trusts - Valued at the net unit value of units held by the trust at year end. The unit value is determined by the total value of fund assets divided by the total number of units of the fund owned. The equity investments in collective trusts are predominantly in index funds for which the underlying securities are actively traded in public markets based upon readily measurable prices. Common collective trusts are measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are being presented in the tables above to permit a reconciliation of the fair value hierarchy to the total plan assets.

Hedge funds - Consists of direct investments in hedge funds through limited partnership interests. Net asset values are based on the estimated fair value of the ownership interest in the investment as determined by the general partner. The majority of the holdings of the hedge funds are in equity securities traded on public exchanges. The investment terms of the hedge funds allow capital to be redeemed quarterly given prior notice with certain limitations. Hedge funds measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are being presented in the tables above to permit a reconciliation of the fair value hierarchy to the total plan assets.

For additional information regarding fair value measurements, see Note 1.

The following tables summarize the assumptions used in the valuation of pension and postretirement benefit obligations at December 31 and the measurement of the net periodic benefit cost in the following year. The Company used a spot rate approach by applying the specific spot rates along the yield curve to the relevant projected cash flows in the estimation of the service and interest components of benefit cost.

	Weighted-Average assumptions as of December 31,					
	Pension Benefits			Postretirement Benefits		
	2022	2021	2020	2022	2021	2020
Assumptions used to determine benefit obligation at year-end						
Discount rate	5.48%	2.80%	2.40%	5.41%	2.49%	1.95%
Rate of compensation increase	3.00%	3.00%	3.00%	N/A	N/A	N/A
Health care cost trend rate	N/A	N/A	N/A	7.00%	6.25%	6.25%
Ultimate health care cost trend rate	N/A	N/A	N/A	5.00%	5.00%	5.00%
Year of ultimate trend rate	N/A	N/A	N/A	2028	2028	2028
Assumptions used to determine expense						
Discount rate for benefit obligations	2.80%	2.40%	3.22%	2.51%	2.04%	2.95%
Discount rate for service costs	2.85%	2.47%	3.25%	2.88%	2.44%	3.29%
Discount rate for interest costs	2.21%	1.66%	2.76%	1.96%	1.33%	2.56%
Expected return on plan assets	7.75%	7.75%	7.75%	7.75%	7.75%	N/A
Rate of compensation increase	3.00%	3.00%	3.00%	N/A	N/A	N/A
Medical health care benefits rate increase	N/A	N/A	N/A	7.00%	6.25%	6.25%
Medical drug benefits rate increase	N/A	N/A	N/A	7.00%	6.25%	6.25%
Ultimate health care cost trend rate	N/A	N/A	N/A	5.00%	5.00%	5.00%
Year of ultimate trend rate	N/A	N/A	N/A	2028	2028	2028

In determining its expected return on plan assets assumption for the year ended December 31, 2022, the Company considered historical experience, its asset allocation, expected future long-term rates of return for each major asset class, and an assumed long-term inflation rate. This assumption was supported by the asset return generation model, which projected future asset returns using simulation and asset class correlation.

	Pension Benefits			Postretirement Benefits		
	2022	2021	2020	2022	2021	2020
Components of net periodic benefit cost						
Service costs	$ 4.3	$ 4.2	$ 4.1	$ —	$ —	$ —
Interest costs	1.8	1.4	2.1	0.1	0.1	0.2
Expected return on plan assets	(12.9)	(12.3)	(11.7)	(0.3)	—	—
Amortization of prior service cost (credit)	—	—	—	—	—	—
Recognized net actuarial loss	—	0.8	1.9	0.2	0.3	0.2
Benefit (income) costs	$ (6.8)	$ (5.9)	$ (3.6)	$ —	$ 0.4	$ 0.4
Other changes in plan assets and benefit obligations recognized in accumulated other comprehensive (income) loss (“AOCI”)						
AOCI at beginning of year	$ 10.9	$ 21.5	$ 28.3	$ 2.2	$ 3.0	$ 2.6
Net (loss) gain arising during the year	—	(0.8)	(1.8)	(0.2)	(0.3)	(0.2)
Recognition of prior service credit	—	—	—	—	—	—
Recognition of actuarial (loss) gain	29.1	(9.8)	(5.0)	0.4	(0.5)	0.6
Total recognized in accumulated other comprehensive loss at end of year	$ 40.0	$ 10.9	$ 21.5	$ 2.4	$ 2.2	$ 3.0

Below is a table summarizing the Company's expected future benefit payments and the expected payments due to Medicare subsidy over the next ten years:

		Postretirement Benefits		
	Pension Benefits	Gross	Expected Medicare Subsidy	Net including Medicare Subsidy
2023	$ 6.5	$ 0.8	$ 0.1	$ 0.7
2024	6.7	0.7	0.1	0.6
2025	6.6	0.7	0.1	0.6
2026	6.8	0.6	—	0.6
2027	6.9	0.5	—	0.5
2028 to 2032	32.9	2.5	0.2	2.3

The Company expects to make no contributions to its defined benefit plans in 2023 and beyond, as pension benefits are expected to be paid out of plan assets and postretirement benefits are paid directly by the Company.

In January 2008, a Supplemental Executive Retirement Plan ("SERP") for the Former CEO was approved by the Compensation Committee of the Board of Directors of the Company. The SERP provides an annual supplemental retirement benefit of up to $0.4 million upon the Former CEO's termination of employment with the Company. The Former CEO is fully vested in the SERP, which has a balance of $2.0 million as of December 31, 2022.

NOTE 15 — Accumulated Other Comprehensive Income (Loss)

The components of and changes in accumulated other comprehensive income (loss) for the years ended December 31, 2022, 2021 and 2020 were as follows:

	Cumulative Translation Adjustment	Pension and Postretirement Benefits	Total
Balance at January 1, 2020	$ (22.4)	$ (14.6)	$ (37.0)
Currency translation	14.1	—	14.1
Pension and OPEB activity, net of tax	—	4.8	4.8
Balance at December 31, 2020	(8.3)	(9.8)	(18.1)
Currency translation	(10.0)	—	(10.0)
Pension and OPEB activity, net of tax	—	8.9	8.9
Balance at December 31, 2021	(18.3)	(0.9)	(19.2)
Currency translation	(19.9)	—	(19.9)
Pension and OPEB activity, net of tax	—	(22.7)	(22.7)
Balance at December 31, 2022	$ (38.2)	$ (23.6)	$ (61.8)

No income taxes are provided on currency translation as foreign earnings are considered permanently re-invested.

NOTE 16 — Subsequent Event

On January 27, 2023, the Company's Board of Directors declared a quarterly dividend of $0.125 per common share. The dividend was paid on February 24, 2023, to shareholders of record as of the close of business on February 10, 2023 and resulted in cash payments of $1.6 million.

SUPPLEMENTARY FINANCIAL DATA

Schedule II

PARK-OHIO HOLDINGS CORP.

SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

Description	Balance at Beginning of Period	Charged to Costs and Expenses	Deductions and Other	Balance at End of Period
Year Ended December 31, 2022:				
Allowances deducted from assets:				
Trade receivable allowances	$ 5.2	1.9	(3.3)(A)	$ 3.8
Inventory reserves	37.5	8.4	(7.4)(B)	38.5
Tax valuation allowances	6.1	2.5	—	8.6
Year Ended December 31, 2021:				
Allowances deducted from assets:				
Trade receivable allowances	$ 5.1	3.0	(2.9)(A)	$ 5.2
Inventory reserves	39.3	12.2	(14.0)(B)	37.5
Tax valuation allowances	6.5	(0.4)	—	6.1
Year Ended December 31, 2020:				
Allowances deducted from assets:				
Trade receivable allowances	$ 4.5	3.0	(2.4)(A)	$ 5.1
Inventory reserves	34.0	13.1	(7.8)(B)	39.3
Tax valuation allowances	5.5	1.0	—	6.5

Note (A)- Uncollectible accounts written off, net of recoveries.

Note (B)- Amounts written off.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of disclosure controls and procedures

As of the end of the period covered by this report, we carried out an evaluation, under the supervision and with the participation of our Chairman and Chief Executive Officer and our Vice President and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15(e) and Rule 15d-15(e) of the Securities Exchange Act of 1934, as amended ("Exchange Act"). Based upon this evaluation, our Chairman and Chief Executive Officer and Vice President and Chief Financial Officer concluded that, as of the end of the period covered by this Annual Report on Form 10-K, our disclosure controls and procedures were effective.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. As required by Rule 13a-15(c) under the Exchange Act, management carried out an evaluation, with participation of our Chairman and Chief Executive Officer and Vice President and Chief Financial Officer, of the effectiveness of our internal control over financial reporting as of December 31, 2022. The framework on which such evaluation was based is contained in the report entitled "Internal Control — Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) (the "COSO Report"). Management's assessment and conclusion on the effectiveness of internal controls over financial reporting did not include the internal controls of Charter or Southern Fasteners, which collectively constituted approximately 2% of total assets as of December 31, 2022 and 1% of total revenues for the year then ended. Based upon the evaluation described above under the framework contained in the COSO Report, our management has concluded that our internal control over financial reporting was effective as of December 31, 2022.

Ernst & Young LLP, our independent registered public accounting firm, who audited the consolidated financial statements of the Company for the year ended December 31, 2022, also audited the effectiveness of the Company's internal control over financial reporting. Their report is set forth on pages 39 - 40 of this Annual Report on Form 10-K and is incorporated by reference into this Item 9A.

Changes in internal control over financial reporting

There have been no changes in our internal control over financial reporting that occurred during the fourth quarter of 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information concerning directors, the identification of the audit committee and the audit committee financial expert and our code of ethics required under this item is incorporated herein by reference from the material contained under the captions “Election of Directors” and “Corporate Governance,” as applicable, in our definitive proxy statement for the 2023 annual meeting of shareholders to be filed with the SEC pursuant to Regulation 14A not later than 120 days after the close of the fiscal year (the “Proxy Statement”). Information relating to executive officers is contained in Part I of this Annual Report on Form 10-K.

Item 11. Executive Compensation

The information relating to executive officer and director compensation and the compensation committee report contained under the heading “Executive Compensation” in the Proxy Statement is incorporated herein by reference. The information relating to compensation committee interlocks contained under the heading “Corporate Governance — Compensation Committee Interlocks and Insider Participation” in the Proxy Statement is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required under this item is incorporated herein by reference from the material contained under the captions “Principal Shareholders” and “Equity Compensation Plan Information” in the Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required under this item is incorporated herein by reference to the material contained under the captions “Corporate Governance Director Independence” and “Transactions With Related Persons” in the Proxy Statement.

Item 14. Principal Accountant Fees and Services

The information required under this item is incorporated herein by reference to the material contained under the caption “Audit Committee — Independent Auditor Fee Information” in the Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) The following financial statements are included in Part II, Item 8 of this annual report on Form 10-K:

(2) Financial Statement Schedules

The following consolidated financial statement schedule of Park-Ohio Holdings Corp. is included in Item 8:

All other schedules for which provision is made in the applicable accounting regulations of the SEC are not required under the related instructions or are not applicable and, therefore, have been omitted.

(3) Exhibits:

Exhibit	
3.1	Amended and Restated Articles of Incorporation of Park-Ohio Holdings Corp. (filed as Exhibit 3.1 to the Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 1998, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
3.2	Code of Regulations of Park-Ohio Holdings Corp. (filed as Exhibit 3.2 to the Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 1998, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
4.1	Indenture, dated April 17, 2017, among Park-Ohio Industries, Inc., the Guarantors (as defined therein) and Wells Fargo Bank, National Association, as trustee (including Form of Note) (filed as Exhibit 4.1 to the Form 8-K of Park-Ohio Holdings Corp. filed on April 17, 2017, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof)
4.2	Seventh Amended and Restated Credit Agreement, dated April 17, 2017, among Park-Ohio Industries, Inc., RB&W Corporation of Canada, the European Borrowers (as defined therein) party thereto, the other Loan Parties (as defined therein), the Lenders (as defined therein), JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, J.P. Morgan Europe Limited, as European agent and J.P. Morgan Securities Inc., as sole lead arranger and bookrunning manager (filed as Exhibit 4.3 to the Form 8-K of Park-Ohio Holdings Corp. filed on April 17, 2017, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof)
4.3	Amendment No. 1 to the Seventh Amended and Restated Credit Agreement, dated June 25, 2018, Park-Ohio Industries, Inc., RB&W Corporation of Canada, the European Borrowers (as defined therein) party thereto, the other Loan Parties (as defined therein), the Lenders (as defined therein), JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, J.P. Morgan Europe Limited, as European agent and J.P. Morgan Securities Inc., as sole lead arranger and bookrunning manager (filed as Exhibit 4.1 to the Form 10-Q of Park-Ohio Holdings Corp. filed on August 9, 2018, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof).

Exhibit	
4.4	Amendment No. 2 to the Seventh Amended and Restated Credit Agreement, dated October 5, 2018, Park-Ohio Industries, Inc., RB&W Corporation of Canada, the European Borrowers (as defined therein) party thereto, the other Loan Parties (as defined therein), the Lenders (as defined therein), JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, J.P. Morgan Europe Limited, as European agent and J.P. Morgan Securities Inc., as sole lead arranger and bookrunning manager (filed as Exhibit 4.1 to the Form 10-Q of Park-Ohio Holdings Corp. filed on August 3, 2022, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof).
4.5	Amendment No. 3 to the Seventh Amended and Restated Credit Agreement, dated February 19, 2019, Park-Ohio Industries, Inc., RB&W Corporation of Canada, the European Borrowers (as defined therein) party thereto, the other Loan Parties (as defined therein), the Lenders (as defined therein), JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, J.P. Morgan Europe Limited, as European agent and J.P. Morgan Securities Inc., as sole lead arranger and bookrunning manager (filed as Exhibit 4.2 to the Form 10-Q of Park-Ohio Holdings Corp. filed on May 10, 2022, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof).
4.6	Amendment No. 4 to the Seventh Amended and Restated Credit Agreement, dated November 26, 2019, Park-Ohio Industries, Inc., RB&W Corporation of Canada, the European Borrowers (as defined therein) party thereto, the other Loan Parties (as defined therein), the Lenders (as defined therein), JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, J.P. Morgan Europe Limited, as European agent and J.P. Morgan Securities Inc., as sole lead arranger and bookrunning manager (filed as Exhibit 4.3 to the Form 10-Q of Park-Ohio Holdings Corp. filed on May 10, 2022, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof).
4.7	Amendment No. 5 to the Seventh Amended and Restated Credit Agreement, dated September 30, 2021, Park-Ohio Industries, Inc., RB&W Corporation of Canada, the European Borrowers (as defined therein) party thereto, the other Loan Parties (as defined therein), the Lenders (as defined therein), JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, J.P. Morgan Europe Limited, as European agent and J.P. Morgan Securities Inc., as sole lead arranger and bookrunning manager (filed as Exhibit 4.4 to the Form 10-Q of Park-Ohio Holdings Corp. filed on May 10, 2022, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof).
4.8	Amendment No. 6 to the Seventh Amended and Restated Credit Agreement, dated November 30, 2021, Park-Ohio Industries, Inc., RB&W Corporation of Canada, the European Borrowers (as defined therein) party thereto, the other Loan Parties (as defined therein), the Lenders (as defined therein), JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, J.P. Morgan Europe Limited, as European agent and J.P. Morgan Securities Inc., as sole lead arranger and bookrunning manager (filed as Exhibit 4.3 to the Form 10-K of Park-Ohio Holdings Corp. filed on March 16, 2022, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof).
4.9	Amendment No. 7 to the Seventh Amended and Restated Credit Agreement, dated June 2, 2022, Park-Ohio Industries, Inc., RB&W Corporation of Canada, the European Borrowers (as defined therein) party thereto, the other Loan Parties (as defined therein), the Lenders (as defined therein), JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, J.P. Morgan Europe Limited, as European agent and J.P. Morgan Securities Inc., as sole lead arranger and bookrunning manager (filed as Exhibit 4.1 to the Form 10-Q of Park-Ohio Holdings Corp. filed on August 3, 2022, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof).
4.1	Description of Common Stock (filed as Exhibit 4.3 to the Form 10-K of Park-Ohio Holdings Corp. filed on March 12, 2020, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof)
10.1	Form of Indemnification Agreement entered into between Park-Ohio Holdings Corp. and each of its directors and certain officers (filed as Exhibit 10.1 to the Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 1998, SEC File No. 000-03134 and incorporated by reference and made a part hereof)

Exhibit	
10.2*	2015 Equity and Incentive Compensation Plan (filed as Exhibit 4.4 to Form S-8 of Park-Ohio Holdings Corp., filed on June 4, 2015, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.3*	2018 Equity and Incentive Compensation Plan (filed as Exhibit 4.4 to Form S-8 of Park-Ohio Holdings Corp., filed on June 27, 2018, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.4*	Form of Restricted Share Agreement between the Company and each non-employee director (filed as Exhibit 10.1 to Form 8-K of Park-Ohio Holdings Corp., filed on January 25, 2005, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof)
10.5*	Form of Restricted Share Agreement for Employees (filed as Exhibit 10.1 to Form 10-Q for Park-Ohio Holdings Corp. for the quarter ended September 30, 2006, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof)
10.6*	Form of Incentive Stock Option Agreement (filed as Exhibit 10.5 to Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 2004, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.7*	Form of Non-Statutory Stock Option Agreement (filed as Exhibit 10.6 to Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 2004, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof)
10.8*	Park-Ohio Industries, Inc. Annual Cash Bonus Plan (filed as Exhibit 10.2 to the Form 10-Q for Park-Ohio Holdings Corp, filed August 10, 2015, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.9*	Form of Performance Based Restricted Share Agreement (filed as Exhibit 10.1 to Form 10-Q of Park-Ohio Holdings Corp. filed August 10, 2015, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.10*	Supplemental Executive Retirement Plan for Edward F. Crawford, effective as of March 10, 2008 (filed as Exhibit 10.9 to Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 2007, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.11*	Non-qualified Defined Contribution Retirement Benefit Letter Agreement for Edward F. Crawford, dated March 10, 2008 (filed as Exhibit 10.10 to Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 2007, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.12*	2009 Director Supplemental Defined Contribution Plan of Park-Ohio Holdings Corp. (Filed as Exhibit 10 to Form 10-Q of Park-Ohio Holdings Corp. filed May 10, 2011, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
21.1	List of Subsidiaries of Park-Ohio Holdings Corp.
23.1	Consent of Independent Registered Public Accounting Firm
24.1	Power of Attorney
31.1	Principal Executive Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Principal Financial Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification requirement under Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	Inline XBRL Instance Document

Exhibit	
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Label Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Presentation Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Definition Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Reflects management contract or other compensatory arrangement required to be filed as an exhibit pursuant to Item 15(c) of this Report.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: March 16, 2023

PARK-OHIO HOLDINGS CORP.
(Registrant)

By: /s/ Patrick W. Fogarty
Name: Patrick W. Fogarty
Title: Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)

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

* Matthew V. Crawford	Chairman of the Board, Chief Executive Officer and President (Principal Executive Officer)	March 16, 2023
* Patrick W. Fogarty	Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	
* Patrick V. Auletta	Director	
* Edward F. Crawford	Director	
* John D. Grampa	Director	
* Howard W. Hanna, IV	Director	
* Dan T. Moore, III	Director	
* Ronna Romney	Director	
* Steven H. Rosen	Director	
* James W. Wert	Director	

* The undersigned, pursuant to a Power of Attorney executed by each of the directors and officers identified above and filed with the Securities and Exchange Commission, by signing his name hereto, does hereby sign and execute this report on behalf of each of the persons noted above, in the capacities indicated.

March 16, 2023

By: /s/ ROBERT D. VILSACK
Robert D. Vilsack, Chief Legal and Administrative Officer, Corporate Secretary

Exhibit 31.1

PRINCIPAL EXECUTIVE OFFICER'S CERTIFICATIONS PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Matthew V. Crawford, certify that:

1. I have reviewed this annual report on Form 10-K of Park-Ohio Holdings Corp.;

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

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

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

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

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

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

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

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

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By:	/s/ Matthew V. Crawford
Name:	Matthew V. Crawford
Title:	Chairman of the Board, Chief Executive Officer and President

Dated: March 16, 2023

PRINCIPAL EXECUTIVE OFFICER'S CERTIFICATIONS
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Patrick W. Fogarty, certify that:

1. I have reviewed this annual report on Form 10-K of Park-Ohio Holdings Corp.;

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

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

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

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

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

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

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

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

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By:	/s/ Patrick W. Fogarty
Name:	Patrick W. Fogarty
Title:	Vice President and Chief Financial Officer

Dated: March 16, 2023

Exhibit 32.1

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

In connection with the Annual Report of Park-Ohio Holdings Corp. (the "Company") on Form 10-K for the period ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

By:	/s/ Matthew V. Crawford
Name:	Matthew V. Crawford
Title:	Chairman of the Board, Chief Executive Officer and President

By:	/s/ Patrick W. Fogarty
Name:	Patrick W. Fogarty
Title:	Vice President and Chief Financial Officer

Dated: March 16, 2023

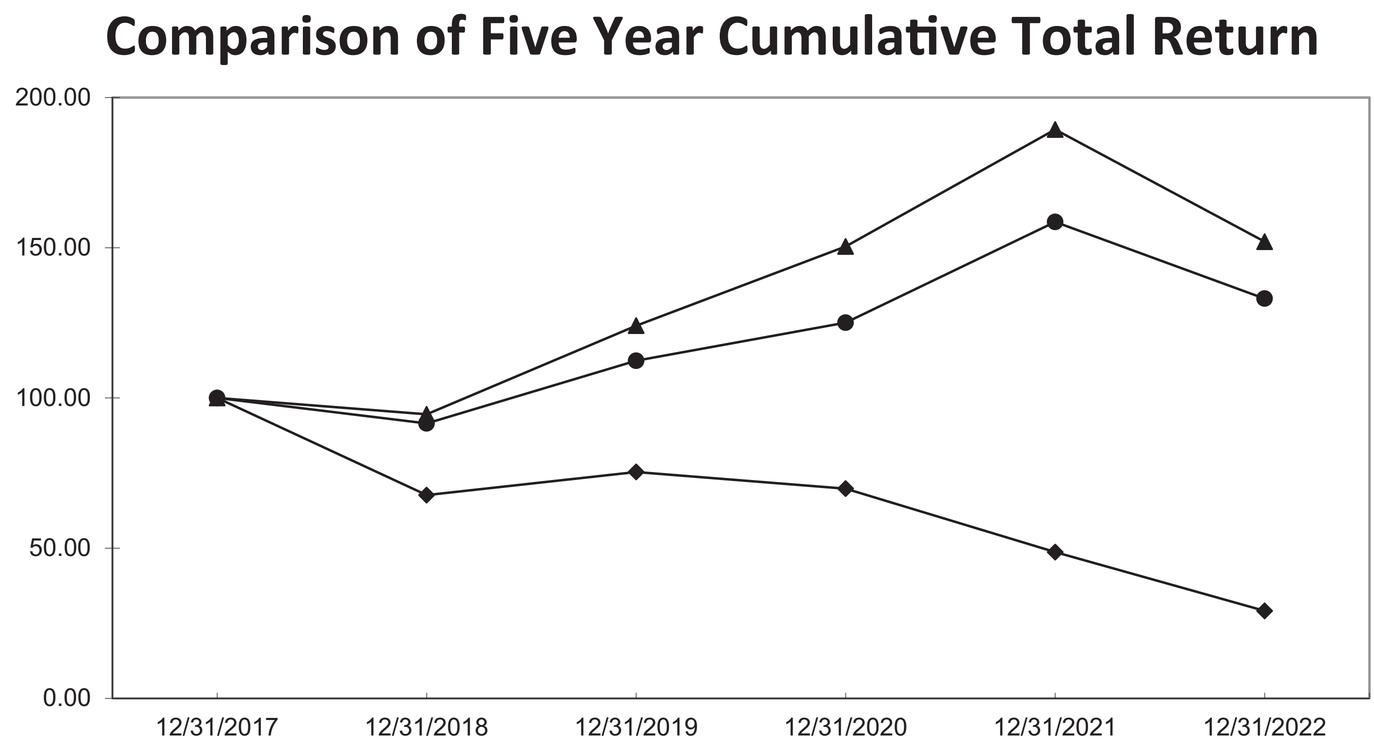
The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

THIS PAGE IS NOT PART OF PARKOHIO'S FORM 10-K FILING

ParkOhio Performance Graph

The following graph compares the cumulative total return of ParkOhio's common stock for the five-year period ending December 31, 2022, against the cumulative total return of the S&P SmallCap 600 Index (broad market comparison) and the NASDAQ U.S. Benchmark TR Index (U.S. companies) (line of business comparison). The graph and table assume $100 was invested on December 31, 2017 and all dividends were reinvested.

Produced on 01/29/2023 including data to 12/31/2022



Legend

Symbol	Total Return Index For:	12/2017	12/2018	12/2019	12/2020	12/2021	12/2022
♦	Park-Ohio Holdings Corp	100.00	67.65	75.34	69.81	48.69	29.12
●	S&P Smallcap 600 Index	100.00	91.52	112.37	125.05	158.59	133.06
▲	NASDAQ US Benchmark TR Index	100.00	94.56	124.03	150.41	189.36	152.00

Notes:

A. The lines represent monthly index levels derived from compounded daily returns that include all dividends.
B. The indexes are reweighted daily, using the market capitalization on the previous trading day.
C. If the monthly interval, based on the fiscal year-end, is not a trading day, the preceding trading day is used.
D. The index level for all series was set to $100.00 on 12/31/2017.

Board of Directors

Matthew V. Crawford [a][d]
Chairman, Chief Executive Officer
and President

Patrick V. Auletta [a]
President Emeritus
KeyBank National Association

Edward F. Crawford
Director
Former US Ambassador to Ireland
Former Chairman and CEO of ParkOhio

John D. Grampa [b]
Retired Chief Financial Officer
Materion Corporation

Howard W. Hanna IV [b]
President
Howard Hanna Real Estate Services

Dan T. Moore III [d][e]
Chief Executive Officer
Dan T. Moore Co.

Ronna Romney [a][c][e]
Director
Molina Healthcare, Inc.

Steven H. Rosen [b][c]
Co-Chief Executive Officer
Resilience Capital Partners

James W. Wert [b][e]
Chief Executive Officer and President
CM Wealth Advisors, Inc.

(a) Executive Committee
(b) Audit Committee
(c) Compensation Committee
(d) Long-Range Planning Committee
(e) Nominating and Corporate Governance Committee

Officers

Matthew V. Crawford
Chairman, Chief Executive Officer and President

Patrick W. Fogarty
Vice President and Chief Financial Officer

Robert D. Vilsack
Chief Legal and Administrative Officer, Secretary

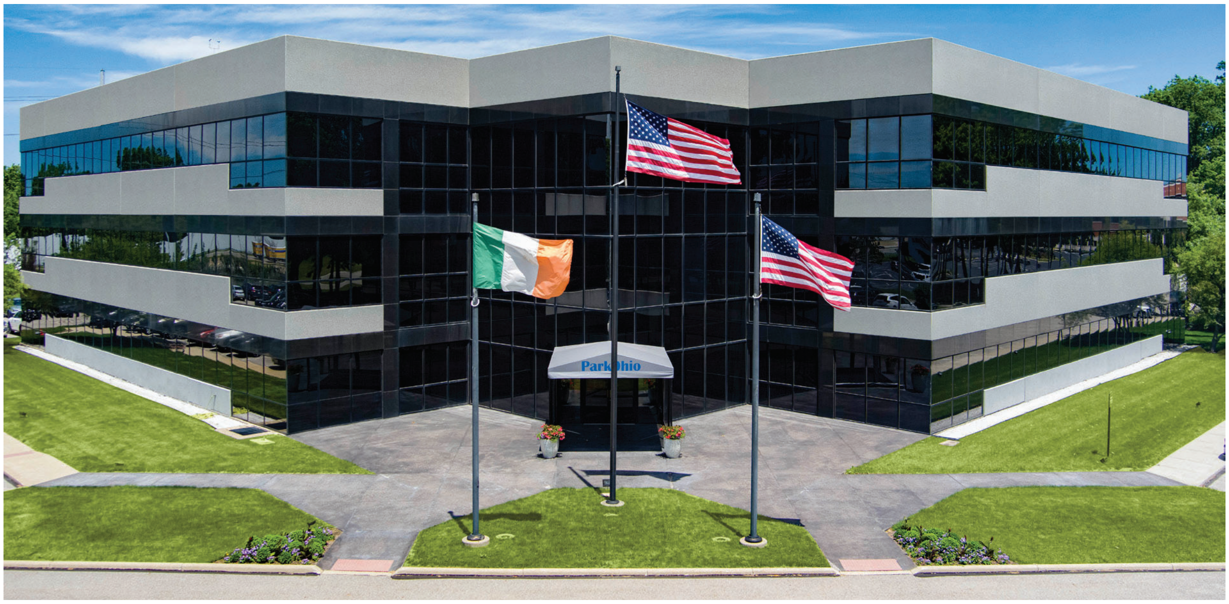
Shareholder Information and Press Releases

ParkOhio files Forms 10-K and 10-Q with the Securities and Exchange Commission. Shareholders may obtain copies of these reports, including ParkOhio's Annual Report on Form 10-K for 2022, and copies of ParkOhio's Annual Report to Shareholders, without charge, by accessing the Company's website at www.pkoh.com or by writing or calling:

Corporate Secretary
Park-Ohio Holdings Corp.
6065 Parkland Boulevard
Cleveland, Ohio 44124

(440) 947-2000
www.pkoh.com

ParkOhio's recent news releases may also be accessed through its website.



ParkOhio World Headquarters

Park-Ohio Holdings Corp. ~ 6065 Parkland Boulevard ~ Cleveland, OH 44124 ~ 440-947-2000 ~ www.pkoh.com