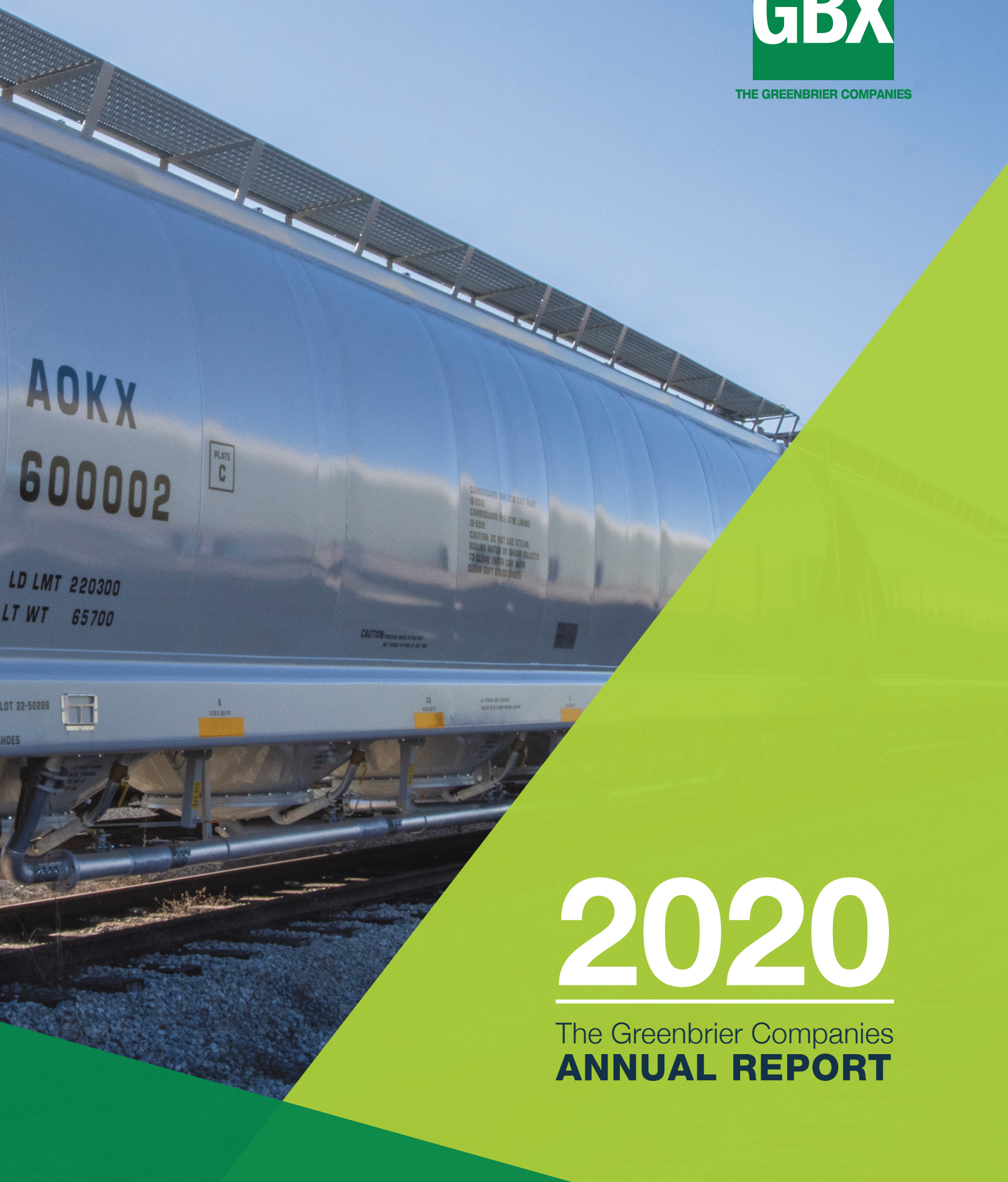




THE GREENBRIER COMPANIES



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BOILING WATER OR SHARP OBJECTS
TO CLEAN. ENTER CAR WITH
CLEAN SOFT DRYED SHOES.

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CAUTION: PRESSURE WATER OF THIS UNIT
MAY DAMAGE THE PAINT AT THE END

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ALL TRACKS ARE CLASSIFIED
EXCEPT FOR CLASSIFIED TRACKS

2020

The Greenbrier Companies
ANNUAL REPORT



William A. Furman
Chairman and
Chief Executive
Officer

LETTER FROM THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER

To Our Shareholders:

The Greenbrier Companies navigated through a challenging fiscal 2020 as COVID-19 shook the global economy. Entering the year, we expected a cyclical downturn in the freight rail industry. The COVID-19 pandemic caused many customers to defer capital spending and exacerbated the impacts of railroad operating initiatives, weaker railcar loadings, higher railcars in storage and lower energy prices.

COVID-19 brought Greenbrier's core values of safety and respect for people to the forefront. Our global workforce has successfully met uniquely challenging conditions. We are grateful for our employees' continued dedication. Greenbrier's designation as an essential business has allowed our frontline production employees and critical support teams to maintain our operations. It was crucial to modify our work methods to keep our entire workforce safe and physically distant. We launched a rapid response to COVID-19 to mitigate its impact on our business and keep our employees, suppliers, contractors, their families and communities safe and healthy. At the same time, we incorporated measures to protect the health of our enterprise during a period of extreme economic stress. Greenbrier's success depends on continuing to execute these missions well.

As a result of our 2019 acquisition of American Railcar Industries' (ARI) manufacturing operations, organic growth and counter-cyclical aftermarket businesses, we are better prepared to weather this downcycle than any previous one. In response to economic conditions, we reduced production capacity, took measures to control costs and managed liquidity and cash flow. We ended the year with ample liquidity, a strong backlog and higher market share. All of this improves Greenbrier's competitive position entering fiscal 2021.

Financial Profile & Liquidity

Despite the challenges, Greenbrier ended fiscal 2020 with a robust balance sheet and strong cash flows. At the onset of the pandemic, we set a \$1 billion liquidity goal to preserve near-term financial health at Greenbrier. We achieved this target by the end of May through a combination of cash, borrowing capacity, spending reductions and other initiatives. Greenbrier's cost-containment measures included a global workforce reduction of approximately 40% as we rightsized our operations to meet current business conditions.

Net earnings were \$49 million, or \$1.46 per diluted share, on revenue of \$2.8 billion. Greenbrier ended the year with a cash balance of \$833.7 million. Greenbrier's Board of Directors continues a balanced deployment of capital designed to protect the business while simultaneously delivering long-term shareholder value. Greenbrier's dividend payments in fiscal 2020 are the highest in our history. In the fourth quarter, Greenbrier's Board of Directors declared a dividend of \$0.27 per share, representing our 26th consecutive quarterly dividend. Based on recent closing share prices, this represents a dividend yield of between 3-4%.

Operating Performance

We ended fiscal 2020 with nearly 22,000 railcars delivered, the second highest in our history. For the year, we received orders for 16,600 units, worth \$1.6 billion, with 40% originating from geographies outside our core North American market. While this is a 20% decline compared to fiscal 2019, we began fiscal 2021 with a diversified railcar backlog of 24,600 units valued at \$2.4 billion.

Manufacturing

Weaker railcar demand, railcars in storage and limited order activity due to COVID-19 impacted Greenbrier's manufacturing business. The Greenbrier Manufacturing Organization (GMO) suspended operations on 13 railcar production lines during fiscal 2020. However, adjusting for lower headcount over fiscal 2020, GMO still demonstrated significant year-over-year improvements in our safety performance. The leadership at GMO and across our facilities lowered the number of safety-related incidents.

In July 2019, we merged ARI's manufacturing business with Greenbrier. After more than a year as a combined organization, Greenbrier has integrated with ARI's operations and these facilities are making positive contributions to our overall performance. Both enterprises embrace the new, shared culture and continue to gain scale and increase market momentum. Marine barge manufacturing continues at Greenbrier Gunderson and orders have been secured through April 2022.

Leasing & Management Services

Greenbrier's comprehensive asset management services business supports approximately 400,000 railcars and facilitates operations on almost every Class I railroad. While there were headwinds associated with market uncertainties, driven in part by COVID-19 and in part due to stresses in certain customer groups, the business unit continued growing in 2020 by adding customers in every business line. Greenbrier's management services unit offers a range of asset-focused services, including railcar maintenance management, car hire processing, regulatory compliance and railcar remarketing.

Greenbrier's leasing company continued expanding its operations in 2020, ending the year with a lease fleet of 8,300 railcars and a strong fleet utilization rate. Headwinds from COVID-19 limited investor activity, yet our capital markets business unit grew, producing valuable contributions to our financial performance. Our capital markets platform, through syndications, allows Greenbrier to engage and partner with the finance industry's leading transportation investors. As an effective distribution channel for Greenbrier's new railcar products, the capital markets activities enhance valuable business relationships that benefit Greenbrier across all commercial activities.

Wheels, Repair & Parts

The Wheels, Repair & Parts business unit was impacted in fiscal 2020 by lower demand, further deployment of Precision Scheduled Railroading (PSR) and inventory devaluation caused by industry-wide railcar scrapping. The unit's leadership spent the year focused on increasing efficiencies and preparing for expected demand in fiscal 2021 as railcars are pulled from storage.

International

Europe's operational performance for fiscal 2020 was strong despite supply chain challenges, COVID-19 and planned temporary plant closures. As a result of new management and a sharp focus on driving productivity, Greenbrier Europe achieved profitability by the end of fiscal 2020 and its long-term business outlook is positive.

In Brazil, Greenbrier Maxion secured additional market share, even with lower order volume and other challenges triggered by COVID-19. Brazil's economy is currently recovering at a healthy rate and we expect solid production at Greenbrier Maxion in the upcoming year.

Corporate Citizenship

Greenbrier recognizes that serving society through responsible corporate citizenship is smart business. We seek to honor the trust placed in us by employees, investors, customers, suppliers and all the communities we touch. It includes recent actions like publishing our second annual Environmental, Social and Governance (ESG) report.

Over the past year, we took conscious steps to bolster our measurable focus areas and develop a more holistic approach to ESG at Greenbrier. After a thorough benchmarking process, we produced a Global Reporting Initiative (GRI) referenced report that aligns with the Sustainable Accounting Standards Board (SASB) framework. In particular, you will observe new commitments to enterprise-wide reporting on Greenbrier-related greenhouse gas emissions, tracking other air emissions and detailing our water consumption. Our latest report features our highest ESG priorities, including governance and ethics, environmental sustainability, workforce safety, employee satisfaction, stakeholder engagement, and community stewardship. We will continue to take steps to drive practices that serve our employees and the places we operate.

In 2020, we more fully articulated our commitment to diversity, equity and inclusion (DEI). Greenbrier is deepening these priorities within our existing core strategy through a new framework dedicated to equity and advancement for all. Our pledge to advance in this space is called “IDEAL,” which stands for Inclusion, Diversity, Equity, Access and Leadership. We stand accountable for our DEI commitments, and this is another targeted area where we seek continuous improvement.

Conclusion

Fiscal 2020 brought immense challenges and presented unique opportunities. We launched our Virtual Sample Railcar™ (VSR) program in March, which quickly gained traction with customers. This live-streaming program allows Greenbrier’s customers to view and inspect railcars without requiring travel. While the cost, environmental benefits and time-saving advantages of VSR are inherently valuable, it has played a vital role during this time when travel is curtailed.

In closing, our management team and Board of Directors have considerable experience with the challenges of managing through economic adversity. We have a strong franchise and a dedicated and talented workforce. Greenbrier has made difficult but necessary adjustments, including rightsizing operations and growing our liquidity to over \$1 billion. These changes have positioned us well to compete and succeed during today’s hardships in the economy and in our core markets. I am confident Greenbrier’s future is bright, and remain optimistic that we will emerge from this time of uncertainty as a continued leader and innovator in the freight railcar market.

Sincerely,



William A. Furman
Chairman and Chief Executive Officer

November 2020



THE GREENBRIER COMPANIES

2020 FORM 10-K

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549-1004

FORM 10-K

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

For the fiscal year ended August 31, 2020

or

Transition Report Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934
for the transition period from _____ to _____

Commission File No. 1-13146

THE GREENBRIER COMPANIES, INC.

(Exact name of Registrant as specified in its charter)

Oregon

(State of Incorporation)

93-0816972

(I.R.S. Employer Identification No.)

One Centerpoint Drive, Suite 200, Lake Oswego, OR 97035

(Address of principal executive offices)

(503) 684-7000

(Registrant's telephone number, including area code)

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

<i>Title of Each Class</i>	<i>Trading Symbol(s)</i>	<i>Name of Each Exchange on Which Registered</i>
Common Stock without par value	GBX	New York Stock Exchange

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

None

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 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 and post such files). Yes No

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

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

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

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

Aggregate market value of the registrant's Common Stock held by non-affiliates as of February 29, 2020 (based on the closing price of such shares on such date) was \$772,657,580.

The number of shares outstanding of the registrant's Common Stock on October 27, 2020 was 32,824,080 without par value.

DOCUMENTS INCORPORATED BY REFERENCE

Certain portions of the registrant's definitive Proxy Statement prepared in connection with the Annual Meeting of Stockholders to be held on January 6, 2021 are incorporated by reference into Parts II and III of this Report.

THE GREENBRIER COMPANIES, INC.
FORM 10-K

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Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

Many of these risks and other factors are beyond our ability to control or predict. Words such as “affirms,” “anticipates,” “believes,” “forecast,” “potential,” “goal,” “contemplates,” “expects,” “intends,” “plans,” “projects,” “hopes,” “seeks,” “estimates,” “strategy,” “could,” “would,” “should,” “likely,” “will,” “may,” “can,” “designed to,” “future,” “foreseeable future” and similar expressions identify forward-looking statements. In addition, statements regarding expectations of cost savings or our ability to navigate current challenges, or operate efficiently when the freight industry market recovers or any other statements that explicitly or implicitly draw trends in our performance or the markets in which we operate, or characterize future events or circumstances are forward-looking statements.

These risks and uncertainties, as well as other risks and uncertainties that could cause our actual results to differ significantly from management’s expectations, are described in greater detail in Item 1A, “Risk Factors”, Item 1, “Business – Backlog”, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” and Item 9A. “Controls and Procedures – Inherent Limitations on Effectiveness of Controls.” Forward-looking statements are based on currently available operating, financial and market information and are inherently uncertain. Investors should not place undue reliance on forward-looking statements, which speak only as of the date they are made and are not guarantees of future performance. Actual future results and trends may differ materially from such forward-looking statements. Except as otherwise required by law, we do not assume any obligation to update any forward-looking statements.

All references to years refer to the fiscal years ended August 31st unless otherwise noted.

The Greenbrier Companies is a registered trademark of The Greenbrier Companies, Inc. Gunderson, Auto-Max II, and Multi-Max are trademarks of Gunderson LLC. YSD is a trademark of Gunderson Rail Services LLC.

PART I

Item 1. BUSINESS

Introduction

We are one of the leading designers, manufacturers and marketers of railroad freight car equipment in North America, Europe, South America and other geographies as opportunities arise. We also are a manufacturer and marketer of marine barges in North America. We are a leading provider of freight railcar wheel services, parts, repair and refurbishment in North America. We also offer railcar management, regulatory compliance services and leasing services to railcar owners or other users of railcars in North America. Through unconsolidated affiliates we produce rail and industrial components and hold an ownership stake in a railcar manufacturer in Brazil.

We operate an integrated business model in North America that combines freight car manufacturing, wheel services, repair, refurbishment, component parts, leasing and fleet management services. Our model is designed to provide customers with a comprehensive set of freight car solutions by utilizing our substantial engineering, mechanical and technical capabilities as well as our experienced commercial personnel. Our integrated model allows us to develop cross-selling opportunities and synergies among our various business segments thereby enhancing our margins. We believe our integrated model is difficult to duplicate and provides greater value for our customers and investors.

We operate in three reportable segments: Manufacturing; Wheels, Repair & Parts; and Leasing & Services. Financial information about our business segments as well as geographic information is located in Note 18 - Segment Information to our Consolidated Financial Statements.

The Greenbrier Companies, Inc., is incorporated in Oregon. Our principal executive offices are located at One Centerpointe Drive, Suite 200, Lake Oswego, Oregon 97035. Our telephone number is (503) 684-7000 and our Internet website is located at <http://www.gbrx.com>.

Products and Services

Manufacturing Segment

North American Railcar Manufacturing - We manufacture most freight railcar types currently in use in the North American market (other than coal cars) and we continue to expand our product features and functionality. We have demonstrated an ability to capture high market shares in many of the car types we produce. The primary products we produce for the North American market are:

Conventional Railcars - We produce a variety of covered hopper cars for industrial and food grade starches, grain, fertilizer, cement, heavy ore minerals, plastic pellets, and petrochemicals as well as gondolas and open top hoppers for steel, metals and aggregates. We also produce a wide range of boxcars, which are used in the transport of paper products, perishables and general merchandise. Our flat car products include center partition cars for the forest products industry, and heavy-duty flat cars.

Tank Cars - We produce a variety of tank cars, including general service, pressurized, coiled, lined, insulated carbon steel and stainless steel tank cars. These are designed for the transportation of petroleum products, ethanol, liquefied petroleum gas (LPG), caustic soda, chlorine, fertilizers, vegetable oils, bio-diesel and various other products.

Intermodal Railcars - We manufacture a comprehensive range of intermodal railcars. Our most popular intermodal product is our double-stack railcar. The double-stack railcar is designed to transport containers stacked two-high on a single platform and provides significant operating and capital savings over other types of intermodal railcars.

Automotive - We manufacture a full line of railcar equipment specifically designed for the transportation of light vehicles. Our automotive offerings include the Auto-Max II and Multi-Max products, which are designed to carry automobiles, SUVs and trucks efficiently.

European Railcar Manufacturing - Our European manufacturing operations produce a variety of tank, automotive and conventional freight railcar types, including a comprehensive line of pressurized tank cars for liquid petroleum, LPG gas, chlorine and ammonia and non-pressurized tank cars for light oil, chemicals and other products. In addition, our European manufacturing operations produce flat cars, cars for coil steel and metals, gondolas, sliding wall cars, hoppers and automobile transport cars.

Marine Vessel Fabrication - We manufacture a broad range of Jones Act ocean-going and river barges for transporting merchandise between ports within the United States. Our primary focus is on the larger ocean-going vessels although we have the capability to compete in other marine-related products. Our Portland, Oregon manufacturing facility, located on a deep-water port on the Willamette River, includes marine vessel fabrication capabilities.

Wheels, Repair & Parts Segment

Wheel Services - We operate a wheel services network in North America. Our wheel shops provide complete wheel services including reconditioning of wheels and axles in addition to new axle machining, finishing and downsizing. Through a joint venture partnership we also provide axle machining, finishing and downsizing.

Railcar Repair, Refurbishment and Maintenance - We operate a railcar repair, refurbishment and maintenance network in North America including repair shops certified by the Association of American Railroads (AAR). Our repair shops perform heavy railcar repair, refurbishment and routine railcar maintenance for third parties and for our leased and managed railcar fleet.

Component Parts Manufacturing - Our component parts facilities recondition and manufacture railcar cushioning units, couplers, yokes, side frames, bolsters and various other parts. We also produce roofs, doors and associated parts for boxcars.

Leasing & Services Segment

Leasing - We operate a railcar leasing business in North America. Our relationships with financial institutions and operating lessors combined with our ownership of a lease fleet of approximately 8,300 railcars enables us to offer flexible financing programs to our customers including operating leases of varied intervals and “by the mile” leases. The percentage of owned units on lease excluding newly manufactured railcars available for sale or lease was 90.4% at August 31, 2020 with an average remaining lease term of 3.0 years and an average age of 8.2 years. In addition to leasing our own railcars, we originate leases of railcars, which are either newly built or refurbished by us, or bought in the secondary market, and sell the railcars and attached leases to financial institutions typically with multi-year management services agreements. As an equipment owner and an originator of leases, we participate principally in the operating lease segment of the market. Under the majority of our leases, we are responsible for maintenance and administration of the leased cars. Assets from our owned lease fleet are periodically sold to accommodate customer demand, manage risk and maintain liquidity.

Management Services - Our North American management services business offers a broad array of software and services that include railcar maintenance management, railcar accounting services (such as billing and revenue collection, car hire receivable and payable administration), total fleet management (including railcar tracking using proprietary software), fleet logistics, administration and railcar re-marketing. We currently provide management services for a fleet of approximately 393,000 railcars for railroads, shippers, carriers, institutional investors and other leasing and transportation companies in North America. In addition, our Regulatory Services Group offers regulatory, engineering, process consulting and advocacy support to the tank car and petrochemical rail shipper community, among other services.

Unconsolidated Affiliates

U.S. Axle Manufacturing – We have a 41.9% interest in Axis, LLC (Axis), a joint venture that manufactures and sells axles to its joint venture partners for use and distribution both domestically and internationally in traditional freight railcar markets and other railcar markets. We obtained our ownership interest in Axis as part of the acquisition of the manufacturing business of American Railcar Industries, Inc. (ARI) on July 26, 2019.

Brazilian Railcar Manufacturing - We have a 60% ownership interest in Greenbrier Maxion-Equipamentos e Serviços Ferroviários S.A. (Greenbrier-Maxion), the leading railcar manufacturer of freight railcars in South America, located near São Paulo, Brazil. Greenbrier-Maxion also assembles bogies and offers a range of aftermarket services including railcar overhaul and refurbishment.

Brazilian Castings and Component Parts Manufacturing - We have a 29.5% ownership interest in Amsted-Maxion Fundação e Equipamentos Ferroviários S.A. (Amsted-Maxion) based in Cruzeiro, Brazil. Amsted-Maxion is a manufacturer of various castings and components for railcars and other heavy industrial equipment. Amsted-Maxion has a 40% ownership position in Greenbrier-Maxion and is integrated with the operations of our Brazilian railcar manufacturer.

Other Unconsolidated Affiliates - We have other unconsolidated affiliates which primarily include joint ventures that produce rail and industrial components.

Backlog

The following table depicts our reported railcar backlog subject to third party sale or lease in number of railcars and estimated future revenue value attributable to such backlog, at the dates shown:

	August 31,		
	2020	2019	2018
New railcar backlog units ⁽¹⁾	24,600	30,300	27,400
Estimated future revenue value (in millions) ⁽²⁾	\$ 2,420	\$ 3,280	\$ 2,740

(1) Each platform of a railcar is treated as a separate unit.

(2) Subject to change based on finalization of product mix.

Approximately 9% of backlog units and 6% of estimated backlog value as of August 31, 2020 was associated with our Brazilian manufacturing operations which are accounted for under the equity method.

Based on current production schedules, approximately 13,500 units in the August 31, 2020 backlog are scheduled for delivery in 2021. The balance of the production is scheduled for delivery in 2022 and beyond. Multi-year supply agreements are common in the rail industry. Backlog units for lease may be syndicated to third parties or held in our own fleet depending on a variety of factors. A portion of the orders included in backlog reflects an assumed product mix. Under terms of the orders, the exact mix and pricing will be determined in the future as customers select railcar specifications, which may impact the dollar amount of backlog. Marine backlog was \$51 million and \$100 million as of August 31, 2020 and 2019, respectively.

Our backlog of railcar units and marine vessels is not necessarily indicative of future results of operations. Certain orders in backlog are subject to customary documentation and completion of terms. Customers may attempt to cancel or modify orders in backlog. Historically, little variation has been experienced between the quantity ordered and the quantity actually delivered, though the timing of deliveries may be modified from time to time. We cannot guarantee that our reported backlog will convert to revenue in any particular period, if at all.

Customers

Our customers across our segments include railroads, leasing companies, financial institutions, shippers, carriers and transportation companies. We have strong, long-term relationships with many of our customers. We believe that our customers' preference for high quality products, our technological leadership in developing innovative products, our focus on being highly responsive to our customer's needs and competitive pricing of our railcars have helped us maintain our long-standing relationships with our customers.

In 2020, revenue from two customers accounted for approximately 26% of total revenue, 30% of Manufacturing revenue, 14% of Leasing & Services revenue and 2% of Wheels, Repair & Parts revenue. No other customers accounted for greater than 10% of total revenue.

Raw Materials and Components

Our products require a supply of materials including steel and specialty components such as brakes, wheels and axles. Specialty components purchased from third parties represent a significant amount of the cost of most freight cars. Our customers often specify particular components and suppliers of such components. Although the number of alternative suppliers of certain specialty components has declined in recent years, there are at least two available suppliers for each of these components.

Certain materials and components are periodically in short supply which could potentially impact production at our new railcar and refurbishment facilities. In an effort to mitigate shortages and reduce supply chain costs, we have entered into strategic alliances and multi-year arrangements for the global sourcing of certain materials and components, we operate a replacement parts business which aids in our vertical integration and we continue to pursue strategic opportunities to protect and enhance our supply chain. We periodically make advance purchases to avoid possible shortages of material due to capacity limitations of component suppliers, shipping and transportation delays and possible price increases.

In 2020, the top ten suppliers for all inventory purchases accounted for approximately 47% of total purchases. The top supplier accounted for 17% of total inventory purchases in 2020. No other suppliers accounted for more than 10% of total inventory purchases. We believe we maintain good relationships with our suppliers.

Competition

We are currently one of the two largest railcar manufacturers of the five major railcar manufacturers competing in North America. There are also a handful of specialty builders who focus on niche markets. We believe that in Europe we are in the top tier of railcar manufacturers. Through our 60% ownership interest in Greenbrier-Maxion, we are the leading railcar manufacturer in South America. The railcar manufacturing industry is becoming more global as customers are purchasing railcars from manufacturers outside of their geographic region. In all railcar markets that we serve, we compete on the basis of quality, price, reliability of delivery, product design and innovation, reputation and customer service and support.

Competition in the marine industry is dependent on the type of product produced, proximity to delivery point, and manufacturing capacity. There are few competitors that build as wide an array of products types as we build. We compete on the basis of price, quality, reliability of delivery, launching capacity and experience with certain product types.

Competition in the wheels, repair & parts businesses is dependent on the type of product or service provided. There are many competitors in these businesses. We compete primarily on the basis of quality, timeliness of delivery, customer service, location of shops, price and engineering expertise.

There are at least twenty institutions in North America that provide railcar leasing and services similar to ours. Many of them are also customers that buy new railcars from our manufacturing facilities and used railcars from our lease fleet, as well as utilize our management and repair services. We compete primarily on the basis of quality, price, delivery, reputation, service offerings and deal structuring and syndication ability. We believe our strong servicing capability and our ability to sell railcars with a lease attached (syndicate railcars), integrated with our manufacturing, repair shops, railcar specialization and expertise in particular lease structures provide a strong competitive advantage.

Marketing and Product Development

In North America, we leverage an integrated marketing and sales effort to coordinate relationships in our various segments. We provide our customers with a diverse range of equipment and financing alternatives designed to satisfy each customer's unique needs, whether the customer is buying new equipment, refurbishing existing equipment or seeking to outsource the maintenance or management of equipment. These custom programs may involve a combination of railcar products, leasing, refurbishing and remarketing services. In addition, we provide customized maintenance management, equipment management, accounting and compliance services and proprietary software solutions.

In Europe and South America, we maintain relationships with customers through market-specific sales personnel. Our engineering and technical staff works closely with their customer counterparts on the design and certification of railcars. Many European railroads are state-owned and are subject to European Union (EU) regulations covering the tender of government contracts.

Through our research and customer relationships, insights are derived into the potential need for new products and services. Marketing and engineering personnel collaborate to evaluate opportunities and develop new products and features. Research and development costs incurred during the years ended August 31, 2020, 2019 and 2018 were \$5.8 million, \$5.4 million and \$6.0 million, respectively.

Patents and Trademarks

We have a proactive program aimed at protecting our intellectual property and the results from our research and development. We have obtained a number of U.S. and non-U.S. patents of varying duration, and pending patent applications, registered trademarks, copyrights and trade names. We believe that manufacturing expertise, the improvement of existing technology and the development of new products are as least as important as patent protection in establishing and maintaining a competitive advantage in our market.

Environmental Matters

We are subject to national, state and local environmental laws and regulations concerning, among other matters, air emissions, wastewater discharge, solid and hazardous waste disposal and employee health and safety. Prior to acquiring facilities, we conduct investigations to evaluate the environmental condition of subject properties and may negotiate contractual terms for allocation of environmental exposure arising from prior uses. We operate our facilities in a manner designed to maintain compliance with applicable environmental laws and regulations. Environmental studies have been conducted on certain of our owned and leased properties that indicate additional investigation and some remediation on certain properties may be necessary.

Portland Harbor Superfund Site

Our Portland, Oregon manufacturing facility (the Portland Property) is located adjacent to the Willamette River. In December 2000, the U.S. Environmental Protection Agency (EPA) classified portions of the Willamette River bed known as the Portland Harbor, including the portion fronting our manufacturing facility, as a federal "National Priority List" or "Superfund" site due to sediment contamination (the Portland Harbor Site). Our company and more than 140 other parties have received a "General Notice" of potential liability from the EPA relating to the Portland Harbor Site. The letter advised us that we may be liable for the costs of investigation and remediation (which liability may be joint and several with other potentially responsible parties) as well as for natural resource damages resulting from releases of hazardous substances to the site. Ten private and public entities, including our company (the Lower Willamette Group or LWG), signed an Administrative Order on Consent (AOC) to perform a remedial investigation/feasibility study (RI/FS) of the Portland Harbor Site under EPA oversight, and several additional entities did not sign such consent, but nevertheless contributed financially to the effort. The EPA-mandated RI/FS was produced by the LWG and cost over \$110 million during a 17-year period. We bore a percentage of the total costs incurred by the LWG in connection with the investigation. Our aggregate expenditure during the 17-year period was not material. Some or all of any such outlay may be recoverable from other responsible parties. The EPA issued its Record of Decision (ROD) for the Portland Harbor Site on January 6, 2017 and accordingly on October 26, 2017, the AOC was terminated.

Separate from the process described above, which focused on the type of remediation to be performed at the Portland Harbor Site and the schedule for such remediation, 83 parties, including the State of Oregon and the federal government, entered into a non-judicial mediation process to try to allocate costs associated with remediation of the Portland Harbor Site. Approximately 110 additional parties signed tolling agreements related to such allocations. On April 23, 2009, our company and the other AOC signatories filed suit against 69 other parties due to a possible limitations period for some such claims; *Arkema Inc. et al v. A & C Foundry Products, Inc. et al*, U.S. District Court, District of Oregon, Case #3:09-cv-453-PK. All but 12 of these parties elected to sign tolling agreements and be dismissed without prejudice, and the case has been stayed by the court until January 14, 2022.

The EPA's January 6, 2017 ROD identifies a clean-up remedy that the EPA estimates will take 13 years of active remediation, followed by 30 years of monitoring with an estimated undiscounted cost of \$1.7 billion. The EPA typically expects its cost estimates to be accurate within a range of -30% to +50%, but this ROD states that changes in costs are likely to occur as a result of new data collected over a 2-year period prior to final remedy design. The ROD identifies 13 Sediment Decision Units. One of the units, RM9W, includes the nearshore area of the river sediments offshore of the Portland Property as well as upstream and downstream of the facility. It also includes a portion of our riverbank. The ROD does not break down total remediation costs by Sediment Decision Unit. The EPA's ROD concluded that more data was needed to better define clean-up scope and cost. On December 8, 2017, the EPA announced that Portland Harbor is one of 21 Superfund sites targeted for greater attention. On December 19, 2017, the EPA announced that it had entered a new AOC with a group of four potentially responsible parties to conduct additional sampling during 2018 and 2019 to provide more certainty about clean-up costs and aid the mediation process to allocate those costs. The parties to the mediation, including our company, agreed to help fund the additional sampling, which is now complete. The EPA requested that potentially responsible parties enter AOCs during 2019 agreeing to conduct remedial design studies. Some parties have signed AOCs, including one party with respect to RM9W which includes the area offshore of our manufacturing facility. We have not signed an AOC in connection with remedial design, but will potentially be directly or indirectly responsible for conducting or funding a portion of such RM9W remedial design. The allocation process is continuing in parallel with the process to define the remedial design.

The ROD does not address responsibility for the costs of clean-up, nor does it allocate such costs among the potentially responsible parties. Responsibility for funding and implementing the EPA's selected cleanup remedy will be determined at an unspecified later date. Based on the investigation to date, we believe that we did not contribute in any material way to contamination in the river sediments or the damage of natural resources in the Portland Harbor Site and that the damage in the area of the Portland Harbor Site adjacent to our property precedes our ownership of the Portland Property. Because these environmental investigations are still underway, including the collection of new pre-remedial design sampling data by EPA, sufficient information is currently not available to determine our liability, if any, for the cost of any required remediation or restoration of the Portland Harbor Site or to estimate a range of potential loss. Based on the results of the pending investigations and future assessments of natural resource damages, we may be required to incur costs associated with additional phases of investigation or remedial action, and may be liable for damages to natural resources. In addition, we may be required to perform periodic maintenance dredging in order to continue to launch vessels from our launch ways in Portland, Oregon, on the Willamette River, and the river's classification as a Superfund site could result in some limitations on future dredging and launch activities. Any of these matters could adversely affect our business and Consolidated Financial Statements, or the value of the Portland Property.

On January 30, 2017 the Confederated Tribes and Bands of Yakama Nation sued 33 parties including our company as well as the United States and the State of Oregon for costs it incurred in assessing alleged natural resource damages to the Columbia River from contaminants deposited in Portland Harbor. *Confederated Tribes and Bands of the Yakama Nation v. Air Liquide America Corp., et al.*, United States Court for the District of Oregon Case No. 3:17-CV-00164-SB. The complaint does not specify the amount of damages the plaintiff will seek. The case has been stayed until January 14, 2022.

Oregon Department of Environmental Quality (DEQ) Regulation of Portland Manufacturing Operations

We have entered into a Voluntary Cleanup Agreement with the Oregon Department of Environmental Quality (DEQ) in which we agreed to conduct an investigation of whether, and to what extent, past or present operations at the Portland Property may have released hazardous substances into the environment. We have also signed an Order on Consent with the DEQ to finalize the investigation of potential onsite sources of contamination that may have a release pathway to the Willamette River. Interim precautionary measures are also required in the order and we are discussing with the DEQ potential remedial actions which may be required. Our aggregate expenditure has not been material, however we could incur significant expenses for remediation. Some or all of any such outlay may be recoverable from other responsible parties.

Regulation

We must comply with the rules of the U.S. Department of Transportation (USDOT) and the administrative agencies it oversees including the Federal Railroad Administration in the U.S. and Transport Canada in Canada who administer and enforce laws and regulations relating to railroad safety. These regulations govern equipment and safety appliance standards for freight cars and other rail equipment used in interstate and international commerce throughout North America. The AAR promulgates rules and regulations governing the safety and design of equipment, relationships among railroads and other railcar owners with respect to railcars in interchange, and other matters. The AAR also certifies railcar builders and component manufacturers that provide equipment for use on North American railroads. These regulations require maintaining certifications with the AAR as a railcar builder, repair and service provider and component manufacturer, and products sold and leased by us in North America must meet AAR, Transport Canada, and Federal Railroad Administration standards.

The primary regulatory and industry authorities involved in the regulation of the ocean-going barge industry are the U.S. Coast Guard, the Maritime Administration of the USDOT, and private industry classing organizations such as the American Bureau of Shipping.

The regulatory environment in Europe consists of a combination of EU regulations and country specific regulations, including a harmonized set of Technical Standards for Interoperability of freight wagons throughout the EU. The EU approval regime was modified to replace country specific approvals with a single, harmonized EU process. The switch created short term delays in wagon certification, but over time streamlined the process. The wagon certification process is improved and currently is the same or shorter than it was previously. The regulatory environment in Brazil consists of oversight from the Ministry of Transportation, the National Agency of Ground Transportation and the National Association of Railroad Transporters. In all other countries, we conform to country specific regulations where applicable.

Employees

As of August 31, 2020, we had approximately 10,600 full-time employees at our consolidated entities, consisting of 9,700 employees in Manufacturing, 600 in Wheels, Repair & Parts and 300 employees in Leasing & Services and corporate. In Manufacturing, 4,600 employees are represented by unions. At our Wheels, Repair & Parts locations, approximately 30 employees are represented by a union. We believe that our relations with our employees are generally good.

Additional Information

We are a reporting company and file annual, quarterly, current and special reports, proxy statements and other information with the SEC. The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at <http://www.sec.gov>. Through a link on the Investor Relations section of our website, <http://www.gbrx.com>, we make available the following filings as soon as reasonably practicable after they are electronically filed with or furnished to the SEC: our Annual Report on Form 10-K; Quarterly Reports on Form 10-Q; Current Reports on Form 8-K; and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended. All such filings are available free of charge. Copies of our Audit Committee Charter, Compensation Committee Charter, Nominating and Corporate Governance Committee Charter and the Company's Corporate Governance Guidelines are also available on our web site at <http://www.gbrx.com>. In addition, each of the reports and documents listed above are available free of charge by contacting our Investor Relations Department at The Greenbrier Companies, Inc., One Centerpointe Drive, Suite 200, Lake Oswego, Oregon 97035.

Item 1A. RISK FACTORS

The following risks could materially and adversely affect our business, financial condition, operating results, liquidity and cash flows, prospects, and stock price. These risks do not identify all risks that we face; other factors, events, or uncertainties currently unknown to us or that we currently do not consider to present significant risks to our business or that emerge in the future could affect us adversely.

The COVID-19 coronavirus pandemic, governmental reaction to the pandemic, and related economic disruptions could negatively impact on our business, liquidity and financial position, results of operations, stock price, and ability to convert backlog to revenue.

The COVID-19 coronavirus outbreak continues to present risks to our business. While in some geographies economic activity has increased and the rate of human morbidity and mortality have decreased in recent months, the pandemic has not yet been contained and the number of its victims and the extent of negative impact on the global economy cannot be foreseen. Several of the countries in which we operate continue to be significantly negatively impacted by COVID-19.

We are unable to predict when, how, or with what magnitude COVID-19 and related events will negatively impact our business. We currently identify the following factors as the most significant risks to our business due to COVID-19, governmental actions, and economic conditions.

- We may be prevented from operating our manufacturing facilities, repair shops, wheel shops or other worksites due to the illness of our employees, “stay-at-home” regulations, and employee reluctance to appear for work. Extended closure of one or more of our large facilities could have a material negative impact on our financial position and results of operations.
- We function as an essential infrastructure business under guidance issued by the Department of Homeland Security. Similar guidelines and authorities exist in other nations where we operate. If our current status were eliminated or curtailed, we could be required to temporarily close one or more of our manufacturing facilities, repair shops, wheel shops or other worksites for an extended period of time.
- If an outbreak of COVID-19 were to occur at one of our large facilities, we could be obligated to close such facility for an extended period of time, and might not have a workforce adequate to meet our operating needs.
- The operations of our customers may be disrupted, thereby increasing the likelihood that our customers may attempt to delay, defer or cancel orders, reduce orders for our products and services in the future or cease to operate as going concerns.
- The operations of our suppliers may be disrupted and the markets for the inputs to our business may not operate effectively or efficiently, thereby negatively impacting our ability to purchase inputs for our business at reasonable prices, in a timely manner and in sufficient amounts.
- Our indebtedness may increase due to our need to increase borrowing to fund operations during a period of reduced revenue.
- The market price of our common stock may drop or remain volatile.
- We may incur significant employee health care costs under our self-insurance programs.

The longer the pandemic continues, the more likely that more of the foregoing risks will be realized and that other negative impacts on our business will occur, some of which we cannot now foresee.

The types of rail equipment we sell and the services we provide significantly impact our revenue and our margin and are dependent on broad economic trends over which we have little or no control.

We manufacture, lease, repair and refurbish a broad range of railcars and related rail equipment. The demand for specific types of railcars and the mix of repair and refurbishment work varies over time. Changes in the global economy and the industries and geographies that we serve cause shifts in demand for specific products and services. These shifts in demand could affect our results of operations and could have an adverse effect on our revenue and our profitability. Demand for specific types of railcars increases and decreases with the demand for goods such as grains, metals, construction aggregates, fertilizer, perishables and general merchandise, plastic pellets, oil and gas, bio-fuels, chemicals, and automobiles, among others, which is beyond our control.

Cyclical economic downturns in our industry usually result in decreased demand for our products and services and reduced revenue.

The industry in which we operate is subject to periodic economic cycles. Our industry currently is in an economic downturn with reduced demand. The purchasing trends of customers in our industry have a significant impact on demand for our products and services. As a result, during downturns, the rate at which we convert backlog to revenue usually decreases and we may slow down or halt production at some of our facilities. We anticipate that the current economic downturn in our industry will reduce demand for our products and services, and will result in one or more of the following: lower sales volumes, lower prices, lower lease utilization rates and decreased revenues and profits.

Equipment failures, technological failures, costs and inefficiencies associated with changing of production lines, or transfer of production between facilities, could lead to production, delivery, or service curtailments or shutdowns, loss of revenue or higher expenses.

We operate a substantial amount of equipment at our production facilities. An interruption in production capabilities or maintenance and repair capabilities at our facilities, as a result of equipment or technology failure, acts of nature, terrorism, costs and inefficiencies associated with changing of production lines or transfer of production between facilities, could reduce or prevent our production, delivery, service, or repair of our products and increase our costs and expenses. A halt of production at any of our manufacturing facilities could severely affect delivery times to our customers. Any significant delay in deliveries not otherwise contractually mitigated could result in cancellation of all or a portion of our orders, cause us to lose future sales, and negatively affect our reputation and our results of operations.

Demand for our railcar equipment and services is dependent on the future of rail transportation and the manner in which railroads operate.

Demand for our rail equipment and services may decrease if freight rail decreases as a mode of freight transportation used by customers to ship their products, or if governmental policies favor modes of freight transportation other than rail. If rail freight transportation becomes more efficient or dwell times decrease, demand for our rail equipment and services may decrease. If the rail freight industry becomes oversupplied, prices for our railcars, lease rates, and demand for our products and services may decrease. The industries in which our customers operate are driven by dynamic market forces and trends, which are in turn influenced by economic, regulatory, and political factors. Features and functionality specific to certain railcar types could result in those railcars becoming obsolete as customer requirements for freight delivery change.

Our business will suffer if we are unsuccessful in making, integrating, and maintaining acquisitions, joint ventures and other strategic investments.

We have acquired businesses and invested in or entered into joint ventures in past periods including the recent acquisition of the ARI manufacturing business. We may in the future acquire other businesses or invest in or enter into joint ventures with other companies. Our failure to identify future acquisition or joint venture opportunities, or to complete potential acquisitions or joint ventures on favorable terms, could hinder our ability to grow our business. These transactions create risks such as:

- disruption of our ongoing business, including loss of management focus on existing operations;

- the difficulty of incorporating acquired operations, technology, and rights into our existing business and product and service offerings, and unanticipated expenses related to such integration;
- the difficulty of integrating a new company's accounting, financial reporting, management, information and information security, human resource, and other administrative systems to permit effective management, and the lack of control if such integration is delayed or not successfully implemented;
- the challenges of coordinating geographically dispersed organizations, integrating personnel with disparate business backgrounds, and combining different corporate cultures;
- the challenges of retaining key personnel of the acquired business or joint venture;
- the risk of incurring unanticipated operating losses and expenses of the acquired business or joint venture;
- the potential impairment of customer and other relationships of the acquired company or of the joint venture partner or our own customers as a result of any integration of operations;
- losses we may incur as a result of declines in the value of a joint venture investment or as a result of incorporating an investee's financial performance into our financial results;
- the difficulty of implementing at companies we acquire the controls, procedures, and policies appropriate for a public company;
- potential unknown liabilities associated with a company we acquire or in which we invest; and
- the risks associated with businesses we acquire or invest in, which may differ from or be more significant than the risks our other businesses face;
- our inability to complete capital expenditure projects on time and within budget or the failure of capital expenditure projects once completed to operate as planned or to return expected benefits as planned; and
- the difficulty of completing such transactions and achieving anticipated cost efficiencies, synergies and other benefits within expected timeframes, or at all.

In addition, we might need to issue additional equity securities, spend our cash, or incur debt, contingent liabilities, or amortization expenses related to intangible assets in connection with effecting an acquisition or joint venture, any of which could reduce our profitability and harm our business or only be available on unfavorable terms, if at all. In addition, valuations supporting our acquisitions and investments could change rapidly. We could determine that such valuations have experienced impairments or other-than-temporary declines in fair value, which could adversely impact our financial results.

Our backlog is not necessarily indicative of the level of our future revenues.

Our manufacturing backlog represents future production for our customers in various periods, and estimated potential revenue attributable to such production. Our backlog of railcar units and marine vessels is not necessarily indicative of future results of operations. Certain orders in backlog are subject to customary documentation and completion of terms which may not occur. Customers may attempt to cancel or modify orders in backlog or refuse to accept and pay for products. Some backlog is subject to certain conditions, including potential adjustment to prices due to changes in prevailing market prices, or due to lower prices for new orders accepted by us from other customers for similar cars on similar terms and conditions during relevant time periods. Our reported backlog may not be converted to revenue in any particular period and some of our contracts permit cancellations with limited compensation that would not replace lost revenue or margins. In addition, some customers may attempt to delay orders, cancel or modify a contract even if the contract does not allow for such cancellation or modification, and we may not be able to recover all revenue or earnings lost due to a breach of contract or a contract may be found to be unenforceable. The likelihood of cancellations, modifications, rejection and non-payment for our products generally increases during periods of market weakness. The timing of converting backlog to revenue is also materially impacted by our decision whether to lease railcars, sell railcars, or syndicate railcars with a lease attached to an investor. We cannot guarantee that our reported

backlog will convert to revenue in any particular period, if at all. Actual revenue may not equal our anticipated revenues based on our backlog, and therefore, our backlog is not necessarily indicative of the level of our future revenues.

Risks related to our operations outside of the U.S. could adversely affect our operating results.

We own, lease, operate or have invested in businesses that have manufacturing facilities in Mexico, Brazil and Europe, and have customers and suppliers located outside the United States. Instability in the macroeconomic, political, legal, trade, financial, labor or market conditions in the countries where we, or our customers or suppliers, operate could negatively impact our business activities and operations. Some foreign countries in which we operate or may operate have authorities that regulate railroad safety and rail equipment design and manufacturing. If we do not have appropriate certifications, we could be unable to market and sell our rail equipment in those markets. Adverse changes in foreign regulations applicable to us or our customers, such as labor, environment, trade, tax, currency and price regulations, could limit our operations, make the manufacture and distribution of our products difficult, and delay or limit our ability to repatriate income derived from foreign markets.

Our business benefits from free trade agreements between the United States and foreign governments, and from various U.S. corporate tax provisions related to international commerce. Any changes in trade or tax policies by the U.S. or foreign governments in jurisdictions in which we do business, as well as any embargoes, quotas or tariffs imposed on our products and services, could adversely and significantly affect our financial condition and results of operations.

Among the political risks we face outside the U.S. are governments nationalizing our business or assets, or repudiating or renegotiating contracts with us, our customers or our suppliers. In our cross-border business activities, we could experience longer customer payment cycles, difficulty in collecting accounts receivable or an inability to protect our intellectual property. We could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar worldwide anti-corruption laws, which may conflict with local business customs in certain jurisdictions. The failure to comply with laws governing international business may result in substantial penalties and fines and reputational harm. Transactions with non-U.S. entities expose us to business practices, local customs, and legal processes with which we may not be familiar, as well as difficulty enforcing contracts and international political and trade tensions. If we are unable to successfully manage the risks associated with our foreign and cross-border business activities, our results of operations, financial condition, liquidity and cash flows could be negatively impacted.

Fluctuations in foreign currency exchange rates could lead to increased costs and lower profitability.

Outside of the U.S., we primarily conduct business in Mexico, Europe and Brazil and our non-U.S. businesses conduct their operations in local currencies. We also source materials worldwide. Fluctuations in exchange rates may affect demand for our products in foreign markets or our cost competitiveness and may adversely affect our profitability. Although we attempt to mitigate a portion of our exposure to changes in currency rates through currency rate hedge contracts and other activities, these efforts cannot fully eliminate the risks associated with the foreign currencies. In addition, some of our borrowings are in foreign currency, giving rise to risk from fluctuations in exchange rates. A material or adverse change in exchange rates could result in significant deterioration of profits or in losses for us.

We derive a significant amount of our revenue from a limited number of customers, the loss of or reduction of business from one or more of which could have an adverse effect on our business.

A significant portion of our revenue is generated from a few major customers. Although we have some long-term contractual relationships with our major customers, we cannot be assured that we will continue to have good relations with our customers, or that our customers will continue to purchase or lease our products or services, or will continue to do so at historical levels, or will renew their existing contracts with us. A reduction in the purchasing or leasing of our products, a termination of our services by one or more of our major customers, a decline in the financial condition of a major customer, or our failure to replace expiring customer contracts with new customer contracts on satisfactory terms could result in a loss of business and have an adverse effect on our business and operating results.

We rely on limited suppliers for certain components and services needed in our production. If we are not able to procure specialty components or services on commercially reasonable terms or on a timely basis, our business, financial condition and results of operations would be adversely affected.

Our manufacturing operations depend in part on our ability to obtain timely deliveries of materials, components and services in acceptable quantities and quality from our suppliers. In 2020, the top ten suppliers for all inventory purchases accounted for approximately 47% of total purchases. The top supplier accounted for 17% of total inventory purchases in 2020. No other suppliers accounted for more than 10% of total inventory purchases. Certain components of our products, particularly specialized components like castings, bolsters, trucks, wheels and axels, and certain services, such as lining capabilities, are currently only available from a limited number of suppliers. If any one or more of our suppliers cease to provide us with sufficient quantities of our components or services in a timely manner or on terms acceptable to us, or cease to provide services or manufacture components of acceptable quality, or go out of business, we could incur disruptions or be limited in our production of our products and we could have to seek alternative sources for these components or services.

In addition, we are increasing the number of components and services we manufacture or provide ourselves, directly or through joint ventures. If we are not successful at manufacturing such components or providing such services or have production problems after transitioning to self-produced supplies, we may not be able to replace such components or services from third party suppliers in a timely manner. Any such disruption in our supply of specialized components and services or increased costs of those components or services could harm our business and adversely affect our results of operations.

We face risks related to cybersecurity threats and incidents that increase our costs and could disrupt our business and operations.

We regularly face attempts by others to gain unauthorized access through the Internet, or to introduce malicious software, to our information technology systems. Additionally, malicious hackers, state-sponsored organizations, terrorists, employees and third-party service providers, or intruders into our physical facilities may attempt to gain unauthorized access and corrupt the processes used to operate our businesses and to design and manufacture our products. We are also a target of malicious attackers who attempt to gain access to our network or those of our customers; steal proprietary information related to our business, products, employees, and customers; or interrupt our systems and services or those of our customers. Such attempts are increasing in number and in technical sophistication, and if successful, expose us and the affected parties to risk of loss or misuse of proprietary or confidential information or disruptions of our business operations. Our information technology infrastructure also includes products and services provided by third parties, and these providers can experience breaches of their systems and products that affect the security of our systems and our proprietary or confidential information. Our reliance on information technology increases as working remotely increases among our employees.

Addressing cybersecurity threats and incidents, whether or not successful, could result in our incurring significant costs related to, for example, disruptions in our operations, rebuilding internal systems, implementing additional threat protection measures, defending against litigation, responding to regulatory inquiries or actions, paying damages, or taking other remedial steps with respect to third parties, as well as reputational harm. In addition, these threats are constantly evolving, thereby increasing the difficulty of successfully defending against them or implementing adequate preventative measures. While we seek to detect and investigate unauthorized attempts and attacks against our network, products, and services, and to prevent their recurrence where practicable through changes to our internal processes and tools, we remain potentially vulnerable to additional known or unknown threats. In some instances, we, our customers, and the users of our products and services can be unaware of an incident or its magnitude and effects.

The theft, loss, or misuse of third party data collected, used, stored, or transferred by us to run our business could result in significantly increased business and security costs or costs related to defending legal claims. Global privacy legislation, enforcement, and policy activity in this area are rapidly expanding and creating a complex regulatory compliance environment. Costs to comply with and implement these privacy-related and data protection measures could be significant, and noncompliance could expose us to significant monetary penalties, damage to our reputation, and even criminal sanctions. Even our inadvertent failure to comply with federal, state, or international privacy-related or data-protection laws and regulations could result in audits, regulatory inquiries, or proceedings against us by governmental entities or other third parties.

Updates or changes to our information technology systems may result in problems that could negatively impact our business.

We have information technology systems, comprising hardware, network, software, people, processes and other infrastructure that are important to the operation of our businesses. We continue to evaluate and implement upgrades and changes to information technology systems that support substantially all of our operating and financial functions. We could experience problems in connection with such implementations, including compatibility issues, training requirements, higher than expected implementation costs and other integration challenges and delays. A significant problem with an implementation, integration with other systems or ongoing management and operation of our systems could negatively impact our business by disrupting operations. Such a problem could also have an adverse effect on our ability to generate and interpret accurate management and financial reports and other information on a timely basis, which could have a material adverse effect on our financial reporting system and internal controls and adversely affect our ability to manage our business.

We could be unable to lease railcars at satisfactory rates, remarket leased railcars on favorable terms upon lease termination, or realize the expected residual values for end of life railcars due to changes in scrap prices, each of which could reduce our revenue and decrease our overall return or affect our ability to sell leased assets in the future.

The profitability of our railcar leasing business depends on our ability to lease railcars at satisfactory rates, sell railcars with sufficiently profitable leases to investors, and to remarket, sell or scrap railcars we own or manage upon the expiration of leases. The rent we receive during the initial railcar lease term typically covers only a small portion of the railcar acquisition or production costs. Thus, we are exposed to a remarketing risk throughout the life of the railcar because we must obtain lease rates or a sale price sufficient to cover our acquisition or production costs related to the railcar. Our ability to lease or remarket leased railcars profitably is dependent on several factors, including, but not limited to, market and industry conditions, cost of, and demand for, competing used or newer models, availability of credit and the credit-worthiness of potential customers, costs associated with the refurbishment of the railcars, the market demand or governmental mandates for refurbishment, customers not defaulting on their leases, as well as market perceptions of residual values and interest rates. A downturn in the industries in which our lessees operate and decreased demand for railcars could also increase our exposure to remarketing risks because lessees may demand shorter lease terms, requiring us to remarket leased railcars more frequently. Furthermore, the resale market for previously leased railcars has a limited number of potential buyers. Our inability to lease, remarket or sell leased railcars on favorable terms could result in an adverse impact to our consolidated financial statements or affect our ability to sell leased railcars to investors in the future.

A limited availability of financing or higher interest rates could increase the cost of, or potentially deter, new leasing arrangements with our customers, reduce our ability to syndicate railcars under lease to financial institutions, or impact the sales price we may receive on such syndications, any of which could materially adversely affect our business, financial condition and results of operations.

A failure to design or manufacture products or technologies or to achieve timely certification or market acceptance of new products or technologies could have an adverse effect on our profitability.

We continue to introduce new railcar product innovations and technologies. We occasionally accept orders prior to receiving railcar certification or proving our ability to manufacture a quality product that meets customer standards. We could be unable to successfully design or manufacture new railcar product innovations or technologies. Our inability to develop and manufacture new product innovations or technologies in a timely and profitable manner, or to obtain timely certification, or to achieve market acceptance, or to avoid quality problems in our new products, could have a material adverse effect on our revenue and results of operations and subject us to losses including penalties, cancellation of orders, rejection of railcars by a customer and/or other losses.

We depend on our senior management team and other key employees, and significant attrition within our management team or unsuccessful succession planning for members of our senior management team and other key employees who are at or nearing retirement age, could adversely affect our business.

Our success depends in part on our ability to attract, retain and motivate senior management and other key employees. Achieving this objective may be difficult due to many factors, including fluctuations in global economic and industry conditions, competitors' hiring practices, cost reduction activities, and the effectiveness of our compensation programs. Competition for qualified personnel can be very intense. We must continue to recruit, retain and motivate senior management and other key employees sufficient to maintain our current business and support our future projects and growth objectives. We are vulnerable to attrition among our current senior management team and other key employees. Many members of our senior management team and other key employees are at or nearing retirement age. If we are unsuccessful in our succession planning efforts, the continuity of our business and results of operations could be adversely affected. A loss of any such personnel, or the inability to recruit and retain qualified personnel in the future, could have an adverse effect on our business, financial condition and results of operations.

Shortages of skilled labor, increased labor costs, or failure to maintain good relations with our workforce could adversely affect our operations.

We depend on skilled labor in the manufacture of railcars and marine barges, repair, refurbishment and maintenance of railcars and provision of wheel services and supply of parts. Some of our facilities are located in areas where demand for skilled labor often exceeds supply. Shortages of some types of skilled labor such as welders and machine operators could restrict our ability to maintain or increase production rates, lead to production inefficiencies and increase our labor costs. Due to the competitive nature of the labor markets in which we operate and the cyclical nature of the railcar industry, the resulting employment cycle increases our risk of not being able to recruit, train and retain the employees we require at efficient costs and on reasonable terms, particularly when the economy expands, production rates are high or competition for such skilled labor increases. Additionally, we may develop an adverse relationship with our workforce or third party labor providers. We are a party to collective bargaining agreements with various labor unions at some of our operations. Disputes with regard to the terms and conditions of these agreements or our potential inability to negotiate acceptable contracts with these unions in the future could result in, among other things, strikes, work stoppages or other slowdowns by the affected workers. We cannot be assured that our relations with our workforce will remain positive. If our workers were to engage in a strike, work stoppage or other slowdown, or other employees were to become unionized or the terms and conditions in future labor agreements were renegotiated, or if union representation is implemented at such sites and we are unable to agree with the union on reasonable employment terms, including wages, benefits, and work rules, we could experience a significant disruption of our operations and incur higher ongoing labor costs. Our costs to recruit, train and retain necessary, qualified employees may exceed our expectations. If we are unable to recruit, train and retain adequate numbers of qualified employees and third party labor providers on a timely basis or at a reasonable cost or on reasonable terms, our business and results of operations could be adversely affected.

Risks related to potential misconduct by employees may adversely impact us.

Our employees may engage in misconduct, fraud or other improper activities, including noncompliance with our policies or regulatory standards and requirements, which could subject us to regulatory sanctions and reputational damage and materially harm our business. It is not always possible to deter employee misconduct, and the precautions we take to prevent and detect this activity may not be effective in controlling unknown or unmanaged risks or losses, including risks associated with harassment, as well as whistleblower complaints and litigation. There can be no assurance that we will succeed in preventing misconduct by employees in the future. In addition, the investigation of alleged misconduct disrupts our operations and may harm the public's perception of our company, which may be costly. Any such events in the future may have a material adverse impact on our financial condition or results of operations.

Some of our competitors are owned or financially supported by foreign governments and may sell products below cost or otherwise compete unfairly.

The markets in which we participate are intensely competitive and we expect them to remain intensely competitive into the foreseeable future. Some of our competitors are owned or financially supported by foreign governments or sovereign wealth funds, and may potentially sell products and services below cost, or otherwise compete unfairly, in order to gain market share. The relative competitiveness of our manufacturing facilities and products affects our performance. A number of competitive factors challenge or affect our ability to compete successfully including the introduction of competitive products and new entrants into our markets, a limited customer base and price pressures such as unfair competition and increases in raw materials and labor costs. If we do not compete successfully, our market share, margin and results of operations may be adversely affected.

We have potential exposure to environmental liabilities, which could increase our operating costs or have an adverse effect on our results of operations.

We are subject to extensive national, state, foreign, provincial and local environmental laws and regulations concerning, among other things, air emissions, water discharge, solid waste and hazardous substances handling and disposal and employee health and safety. These laws and regulations are complex and frequently change. We could incur unexpected costs, penalties and other civil and criminal liability if we, or in certain circumstances others, fail to comply with environmental laws or permits issued pursuant to those laws. We also could incur costs or liabilities related to off-site waste disposal or remediating soil or groundwater contamination at our properties, including as set forth in Item 3, "Legal Proceedings." In addition, future environmental laws and regulations may require significant capital expenditures or changes to our operations, or may impose liability on us in the future for actions that complied with then applicable laws and regulations when the action was taken.

Fires, natural disasters, pandemics, terrorism, or severe or unusual weather conditions could disrupt our business and result in loss of revenue or higher expenses or decreased demand for wheel services.

Any serious disruption at any of our facilities due to pandemic, terrorism, fire, hurricane, earthquake, flood, other severe weather events or any other natural disaster could impair our ability to use our facilities and have a material adverse impact on our revenues and increase our costs and expenses. If there is a natural disaster or other serious disruption at any of our facilities, particularly at any of our Mexican or Arkansas facilities, it could impair our ability to adequately supply our customers, cause a significant disruption to our operations, cause us to incur significant costs to relocate or reestablish these functions and negatively impact our operating results. While we insure against certain business interruption risks, such insurance may not adequately compensate us for any losses incurred as a result of natural or other disasters.

Additionally, seasonal fluctuations in weather conditions may lead to greater variation in our quarterly operating results as unusually mild weather conditions will generally lead to lower demand for our wheel-related products and services. Unusually mild weather conditions throughout the year may reduce overall demand for our wheel-related products and repair services. If occurring for prolonged periods, such weather could have an adverse effect on our business, results of operations and financial condition.

Business, regulatory, and legal developments regarding climate change may affect the demand for our products or the ability of our critical suppliers to meet our needs.

Scientific studies have suggested that emissions of certain gases, commonly referred to as greenhouse gases (GHGs) including carbon dioxide and methane, may be contributing to warming of the Earth's atmosphere and other climate changes. Legislation and new rules to regulate emission of GHGs have been introduced in numerous state legislatures, the U.S. Congress, and by the EPA. Some of these proposals would require industries to meet stringent new standards that may require substantial reporting of GHGs and other carbon intensive activities in addition to potentially mandating reductions in our carbon emissions. While we cannot assess the direct impact of these or other potential regulations, we recognize that new climate change reporting or compliance protocols could affect our operating costs, the demand for our products and/or affect the price of materials, input factors and manufactured components which could impact our margins. Other adverse consequences of climate change could include an increased frequency of severe weather events and rising sea levels that could affect operations at our manufacturing facilities, the price of insuring company assets, or other unforeseen disruptions of our operations, systems, property or equipment.

Fluctuations in the availability and price of inputs could have an adverse effect on our ability to manufacture and sell our products profitably and could adversely affect our margins and revenue.

A significant portion of our business depends upon the adequate supply of steel, other raw materials, and energy at competitive prices. A small number of suppliers fulfill a substantial amount of our requirements. The cost of steel and all other materials used in the production of our railcars represents more than half of our direct manufacturing costs per railcar and in the production of our marine barges represents more than 30% of our direct manufacturing costs per marine barge. Our cost of acquiring steel, components, and other raw materials, to manufacture our railcars and marine barges are impacted by tariffs. The loss of suppliers or their inability to meet our price, quality, quantity and delivery requirements could have an adverse effect on our ability to manufacture and sell our products on a cost-effective basis. If we are not able to purchase materials and energy at competitive prices, our ability to produce and sell our products on a cost effective basis could be adversely impacted which, in turn, could adversely affect our revenue and profitability. Our fixed-price contracts generally anticipate material price increases and surcharges. If we are unable to adjust our selling prices or have adequate protection in our contracts against changes in material prices, our margins could be adversely affected. Additionally, a portion of our Wheels, Repair & Parts businesses involve scrapping steel parts and the resulting revenue from such scrap steel increases our margins and revenues. When the price of scrap steel declines, our revenues and margins in such businesses decrease.

Our debt could have negative consequences to our business or results of operations.

We face several risks due to our debt and debt service obligations including our potential inability to satisfy our financial obligations related to our consolidated indebtedness; potential breach of the covenants in our credit agreements; our ability to borrow additional amounts or refinance existing indebtedness in the future to fund operating needs may be limited or costly; our availability of cash flow may be inadequate because a portion of our cash flow is needed to pay principal and interest on our debt; we may be vulnerable to competitive pressures and to general adverse economic or industry conditions, including fluctuations in market interest rates or a downturn in our business; we may be at a competitive disadvantage relative to our competitors that have greater financial resources than us or more flexible capital structures than us; we face additional exposure to the risk of increased interest rates as certain of our borrowings are at variable rates of interest, which could result in higher interest expense in the event of an increase in interest rates; restrictions under debt agreements may adversely interfere with our financial and operating flexibility and subjecting us to other risks; and exposure to the possibility that we may suffer a material adverse effect on our business and financial condition if we are unable to service our debt or obtain additional financing, as needed.

We, our subsidiaries, and our joint ventures may incur additional indebtedness, including secured indebtedness, and other obligations and liabilities that do not constitute indebtedness. This could increase the risks associated with our debt. Some of our credit facilities and existing indebtedness use the London Interbank Offered Rates (LIBOR) as a benchmark for establishing interest rates. LIBOR is the subject of recent proposals for reform. The consequences of these developments with respect to LIBOR cannot be entirely predicted at this time, but could result in an increase in the cost of our variable rate debt.

Our product and service warranties could expose us to significant claims.

We offer our customers limited warranties for many of our products and services. Accordingly, we may be subject to significant warranty claims in the future, such as multiple claims based on one defect repeated throughout our production or servicing processes, claims for which the cost of repairing the defective part is highly disproportionate to the original cost of the part or defects in railcars or services which we discover in the future resulting in increased warranty costs or litigation. Warranty and product support terms may expand beyond those which have traditionally prevailed in the rail supply industry. These types of warranty claims could result in costly product recalls, customers seeking monetary damages, significant repair costs and damage to our reputation. If warranty claims attributable to actions of third party component manufacturers are not recoverable from such parties due to their poor financial condition or other reasons, we could be liable for warranty claims and other risks for using these materials in our products.

Train derailments or other accidents or claims could subject us to legal claims that adversely impact our business, financial condition and our results of operations.

We provide a number of services which include the manufacture and supply of new railcars, wheels, components and parts and the lease and repair of railcars for our customers that transport a variety of commodities, including tank railcars that transport hazardous materials such as crude oil, ethanol and other products. In addition, we have a Regulatory Services Group which offers regulatory, engineering, process consulting and advocacy support to the tank car and petrochemical rail shipper community, among other services. We could be subject to various legal claims, including claims of negligence, personal injury, physical damage and product or service liability, or in some cases strict liability, as well as potential penalties and liability under environmental laws and regulations, in the event of a derailment or other accident involving railcars, including tank railcars whether resulting from natural disasters, human error, terrorism, or other causes. If we become subject to any such claims and are unable successfully to resolve them or maintain inadequate insurance for such claims, our business, financial condition and results of operations could be materially adversely affected.

Our products may be sold to third parties who may misuse, improperly install or improperly or inadequately maintain or repair such products thereby potentially exposing us to claims that could increase our costs and weaken our financial condition. The products we manufacture are designed to work optimally when properly operated, installed, repaired, maintained and used to transport the intended cargo. When this does not occur, we may be subjected to claims or litigation associated with product damage, injuries or property damage that could increase our costs and weaken our financial condition.

Changes in, or failure to comply with, applicable regulations may adversely impact our business, financial condition and results of operations.

Our company and the other participants in our industry are subject to regulation by governmental agencies. These authorities establish, interpret, and enforce rules and regulations for the railcar industry. New rules and regulations and shifting enforcement priorities of regulators could increase our operating costs and the operating costs of our customers. Changes to the process for obtaining regulatory approval in Europe for the operation of new or modified railcars may make it more difficult for us to deliver products timely and to comply with our sales contracts.

We cannot guarantee that we or our suppliers will be in compliance at all times and compliance may prove to be more costly and limiting than we currently anticipate and compliance requirements could increase in future years. If we or our suppliers fail to comply with applicable requirements and regulations, we could face sanctions and penalties that could negatively affect our financial results.

The timing of our asset sales and related revenue recognition could cause significant differences in our quarterly results and liquidity.

We may build products in anticipation of a customer order, or lease railcars to a customer with the aim of selling such railcars on lease to a third party. In such cases, the lag between production and sale results in uneven recognition of revenue and earnings over time. Our production during any given period may be concentrated in relatively few contracts, intensifying the amplitude and irregularity of our revenue streams. The timing of recognizing revenue on a railcar is also materially impacted by our decision whether to lease the railcar to a lessee, sell the railcar, or syndicate the railcar with a lease attached to an investor. In addition, we periodically sell railcars from our own lease fleet and the timing and volume of such sales are difficult to predict. As a result, comparisons of our manufacturing revenue, deliveries, quarterly net gain on disposition of equipment, income and liquidity between quarterly periods within one year and between comparable periods in different years may not be meaningful and should not be relied upon as indicators of our future performance.

Unanticipated changes in our tax provisions or exposure to additional income tax liabilities could affect our financial condition and profitability and we may take tax positions that the Internal Revenue Service or other tax authorities may contest.

We are subject to income taxes in both the United States and foreign jurisdictions. Significant judgments and estimates are required to be made in determining our worldwide provision for income taxes. Changes in estimates of projected

future operating results, loss of deductibility of items, recapture of prior deductions (including related to interest on convertible notes), limitations on our ability to utilize tax net operating losses in the future or changes in assumptions regarding our ability to generate future taxable income could result in significant increases to our tax expense and liabilities that could adversely affect our financial condition and profitability.

We have in the past and may in the future take tax positions that the Internal Revenue Service (IRS) or other tax authorities may contest. We are required by an IRS regulation to disclose particular tax positions to the IRS as part of our tax returns for that year and future years. If the IRS or other tax authorities successfully contests a tax position that we take, we may be required to pay additional taxes, interest or fines that may adversely affect our results of operations and financial position.

Changes in the credit markets and the financial services industry could negatively impact our business, results of operations, financial condition or liquidity.

The credit markets and the financial services industry may experience volatility which can result in tighter availability of credit on more restrictive terms and limit our ability to sell railcar assets or to syndicate railcars to investors with leases attached. Our liquidity, financial condition and results of operations could be negatively impacted if our ability to borrow money to finance operations, obtain credit from trade creditors, obtain credit to maintain our hedging programs, offer leasing products to our customers or sell railcar assets were to be impaired. In addition, scarcity of capital could also adversely affect our customers' ability to purchase, lease, or pay for products from us or adversely affect our suppliers' ability to provide us with product. Any of these conditions or events could result in reductions in our revenues, increased price competition, or increased operating costs, which could adversely affect our business, financial condition and results of operations.

Our stock price has been volatile and may continue to experience large fluctuations.

The price of our common stock has experienced rapid and significant price fluctuations. The price for our common stock is likely to continue to be volatile and subject to price and volume fluctuations in response to market and other factors, including the factors discussed elsewhere in these risk factors. A material decline in the price of our common stock may result in the assertion of certain claims against us, and/or the commencement of inquiries and/or investigations against us. A prolonged decline in the price of our common stock could result in a reduction in the liquidity of our common stock, a reduction in our ability to raise capital, and the inability of investors to obtain a favorable selling price for their shares. Following periods of volatility in the market price of their stock, historically many companies have been the subject of securities class action litigation. If we became involved in securities class action litigation in the future, it could result in substantial costs and diversion of our management's attention and our resources and could harm our stock price, business, prospects, financial condition and results of operations.

Changes in accounting standards or inaccurate estimates or assumptions in the application of accounting policies could adversely affect our financial results.

Our accounting policies and methods are fundamental to how we record and report our financial condition and results of operations. Some of these policies require use of estimates and assumptions that may affect the reported value of our assets or liabilities and financial results and are critical because they require management to make difficult, subjective, and complex judgments about matters that are inherently uncertain. Estimates, judgments and assumptions underlying the accompanying consolidated financial statements include, but are not limited to, income taxes, warranty accruals, environmental costs, revenue recognition, depreciation and amortization, impairment of long-lived assets, litigation, and accrued liabilities, among other estimates. If our accounting policies, methods, judgments, assumptions, estimates and allocations prove to be incorrect, or if circumstances change, our business, financial condition, results of operations, liquidity, ability to pay dividends or stock price may be materially adversely affected.

Accounting standard setters and those who interpret the accounting standards (such as the Financial Accounting Standards Board, the SEC, and our independent registered public accounting firm) may amend or even reverse their previous interpretations or positions on how these standards should be applied. In some cases, we could be required to apply a new or revised standard retrospectively, resulting in the revision of prior period financial statements. Changes in accounting standards can be hard to predict and can materially impact how we record and report our financial condition and results of operations

Our financial performance and market value could cause future write-downs of goodwill or intangibles or other long-lived assets in future periods.

We are required to perform an annual impairment review of goodwill and indefinite lived assets which could result in an impairment charge if it is determined that the carrying value of the asset is in excess of the fair value. We perform a goodwill impairment test annually during our third quarter. Goodwill is also tested more frequently if changes in circumstances or the occurrence of events indicates that a potential impairment exists.

When we have continued underperforming operations or changes in circumstances, such as a decline in the market price of our common stock, changes in demand or in the numerous variables associated with the judgments, assumptions and estimates made in assessing the appropriate valuation of goodwill indicate the carrying amount of certain indefinite lived assets may not be recoverable, the assets are evaluated for impairment. Among other things, our assumptions used in the valuation of goodwill include growth of revenue and margins and increased cash flows over time. If actual operating results were to differ from these assumptions, it may result in an impairment of goodwill. As of August 31, 2020, we had \$87.0 million of goodwill in our Manufacturing segment and \$43.3 million in our Wheels, Repair & Parts segment. Impairment charges to our goodwill or our indefinite lived assets would impact our results of operations. Future write-downs of goodwill and intangibles could affect certain of the financial covenants under debt instruments and could restrict our financial flexibility. In the event of goodwill impairment, we may have to test other assets for impairment.

Our current shareholders could experience dilution.

We require substantial working capital to fund our business. If additional funds are raised through the issuance of equity securities or convertible securities, the percentage ownership held by our shareholders would be reduced and the equity securities we issue may have rights, preferences or privileges senior to those of our common stock. Additionally, we have the option to settle outstanding convertible notes in cash, although if we opt not to or do not have the ability to settle outstanding convertible notes in cash, the conversion of some or all of our convertible notes may dilute the ownership interests of existing shareholders. Any sales in the public market of the common stock issuable upon the conversion of the notes could adversely affect prevailing market prices of our common stock. In addition, the existence of the notes may encourage short selling by market participants, because the conversion of the notes could depress the price of our common stock.

Certain provisions in our charter documents, Oregon law, and our debt instruments could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove members of our board of directors and may adversely affect the market price of our common stock.

Our Articles of Incorporation and Bylaws, Oregon law, and contracts and debt instruments to which we are a party, contain certain provisions that could delay, defer or prevent an acquisition proposal that some, or a majority, of our shareholders might believe to be in their best interests or in which shareholders might receive a premium for their common stock over the then-prevailing market price. These provisions could also dissuade shareholders or third parties from contesting director elections and could cause investors to view our securities as less attractive investments and reduce the market price of our common stock. These provisions are described in further detail in “Description of the Registrant’s Securities Under Section 12 of the Securities Exchange Act of 1934” annexed as Exhibit 4.3 to this Annual Report.

Payments of cash dividends on our common stock may be made only at the discretion of our Board of Directors and may be restricted by Oregon law.

Any decision to pay dividends will be at the discretion of our Board of Directors and will depend upon our operating results, strategic plans, capital requirements, financial condition, provisions of our borrowing arrangements and other factors our Board of Directors considers relevant. Furthermore, Oregon law imposes restrictions on our ability to pay dividends. Accordingly, we may not be able to continue to pay dividends in any given amount in the future, or at all.

Our business and operations could be negatively affected if we become subject to shareholder activism, which could cause us to incur significant expense, hinder execution of our business strategy and impact our stock price.

Shareholder activism which could take many forms, including potential proxy contests and public information campaigns continues to increase. Shareholder activism could result in substantial costs to the Company, give rise to perceived uncertainties as to our future, adversely affect our relationships with suppliers, customers, and regulators, make it more difficult to attract and retain qualified personnel, and adversely impact our stock price.

If we are unable to protect our intellectual property or if third parties assert that our products or services infringe their intellectual property rights, our ability to compete in the market may be harmed, and our business and financial condition may be adversely affected.

If our intellectual property rights are not adequately protected, we may not be able to commercialize our technologies, products or services and our competitors could commercialize our technologies, which could result in a decrease in our sales and market share and could materially adversely affect our business, financial condition and results of operations. Conversely, third parties might assert that our products, services, or other business activities infringe their patents or other intellectual property rights. Infringement and other intellectual property claims and proceedings brought against us, whether successful or not, could result in substantial litigation and judgment costs and harm our reputation.

Insurance coverage could be costly, unavailable or inadequate.

The ability to insure our businesses, facilities and rail assets is an important aspect of our ability to manage risk. As there are only limited providers of this insurance to the railcar industry, there is no guarantee that such insurance will be available on a cost-effective basis in the future. In addition, we cannot assure that our insurance carriers will be able to pay current or future claims. Additionally, the nature of our business subjects us to physical damage, business interruption and product liability claims, especially in connection with the repair and manufacture of products that carry hazardous or volatile materials. Although we maintain liability insurance coverage at commercially reasonable levels compared to similarly sized heavy equipment manufacturers, an unusually large physical damage, business interruption or product liability claim or a series of claims based on a failure repeated throughout our production process could exceed our insurance coverage or result in damage to our reputation, which could materially adversely impact our financial condition and results of operations.

Some of our customers place orders for our products in reliance on their ability to utilize tax benefits or tax credits any of which benefits or credits could be discontinued thereby reducing incentives for our customers to purchase our rail products.

There is no assurance that tax authorities will reauthorize, modify, or prevent the expiration of tax benefits, tax credits, or other policies aimed to incentivize the purchase of our products. If such incentives are discontinued or diminished, the demand for our products could decrease, thereby creating the potential for a material adverse effect on our financial condition or results of operations.

Our share repurchase program is intended to enhance long-term shareholder value although we cannot guarantee this will occur and this program may be suspended or terminated at any time.

The Board of Directors has authorized our company to repurchase our common stock through a share repurchase program. Our share repurchase program may be modified, suspended or discontinued at any time without prior notice. Although the share repurchase program is intended to enhance long-term shareholder value, we cannot provide assurance that this will occur.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

We operate at the following primary facilities as of August 31, 2020:

Description	Location	Status
Manufacturing Segment		
Operating facilities:	6 locations in the United States	Owned
	3 locations in Mexico	Owned – 2 locations Leased – 1 location
	3 locations in Poland	Owned
	3 locations in Romania	Owned
	1 location in Turkey	Owned
	Administrative offices:	2 locations in the United States
Wheels, Repair & Parts Segment		
Operating facilities:	20 locations in the United States	Leased – 11 locations Owned – 9 locations
	Administrative offices:	Birmingham, Alabama
Leasing & Services Segment		
Corporate offices, railcar marketing and leasing activities:	Lake Oswego, Oregon	Leased

We believe that our facilities are in good condition and that the facilities, together with anticipated capital improvements and additions, are adequate to meet our operating needs for the foreseeable future. We continually evaluate our facilities in order to remain competitive and to take advantage of market opportunities.

Item 3. LEGAL PROCEEDINGS

There is hereby incorporated by reference the information disclosed in Note 21 - Commitments and Contingencies to Consolidated Financial Statements, Part II, Item 8 of this Form 10-K.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

Information about our Executive Officers

Current information regarding our executive officers is presented below.

William A. Furman, 76, is Chief Executive Officer and Chairman of the Board of Directors. Mr. Furman has served as Chief Executive Officer since 1994, and as Chairman of the Board of Directors since January 2014. Mr. Furman was Vice President of the Company, or its predecessor company, from 1974 to 1994 and President of the Company from 1994 to 2019.

Martin R. Baker, 64, is Senior Vice President, General Counsel and Chief Compliance Officer, a position he has held since joining the Company in May 2008. Prior to joining the Company, Mr. Baker was Corporate Vice President, General Counsel and Secretary of Lattice Semiconductor Corporation.

Alejandro Centurion, 64, is Executive Vice President of the Company and President of Greenbrier Manufacturing Operations, a position he has held since January 2015. Mr. Centurion has served in various management positions for the Company since 2005, most recently as President of North American Manufacturing Operations.

Brian J. Comstock, 58, is Executive Vice President, Sales and Marketing, a position he has held since April 2018. Mr. Comstock has served in various management positions for the Company since 1998, most recently as Senior Vice President and General Manager of Commercial, Americas.

Adrian J. Downes, 57, is Senior Vice President, Chief Financial Officer and Chief Accounting Officer. Mr. Downes has served as Senior Vice President and Chief Accounting Officer since joining the Company in March 2013. Mr. Downes was promoted to Acting Chief Financial Officer in August 2018 and was promoted to Chief Financial Officer in May 2019.

Mark J. Rittenbaum, 63, is Executive Vice President, Chief Commercial and Leasing Officer, a position he has held since February 2016. Mr. Rittenbaum has served in various management positions for the Company since 1990, most recently as Executive Vice President and Chief Financial Officer.

Lorie L. Tekorius, 53, is President and Chief Operating Officer. Ms. Tekorius has served as Chief Operating Officer since August 2018 and was promoted to President in August 2019. Ms. Tekorius has served in various management positions for the Company since 1995, most recently as Executive Vice President and Chief Operating Officer and prior to that, as Executive Vice President and Chief Financial Officer.

Executive officers are designated by the Board of Directors. No director or executive officer has a family relationship with any other director or executive officer of the Company.

PART II

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

Our common stock has been traded on the New York Stock Exchange under the symbol GBX since July 14, 1994. There were approximately 550 holders of record of common stock as of October 27, 2020.

Issuer Purchases of Equity Securities

The Board of Directors has authorized the Company to repurchase shares of the Company's common stock. The share repurchase program has an expiration date of March 31, 2021 and the amount remaining for repurchase is \$100 million as of August 31, 2020. There were no shares repurchased under the share repurchase program during the year ended August 31, 2020.

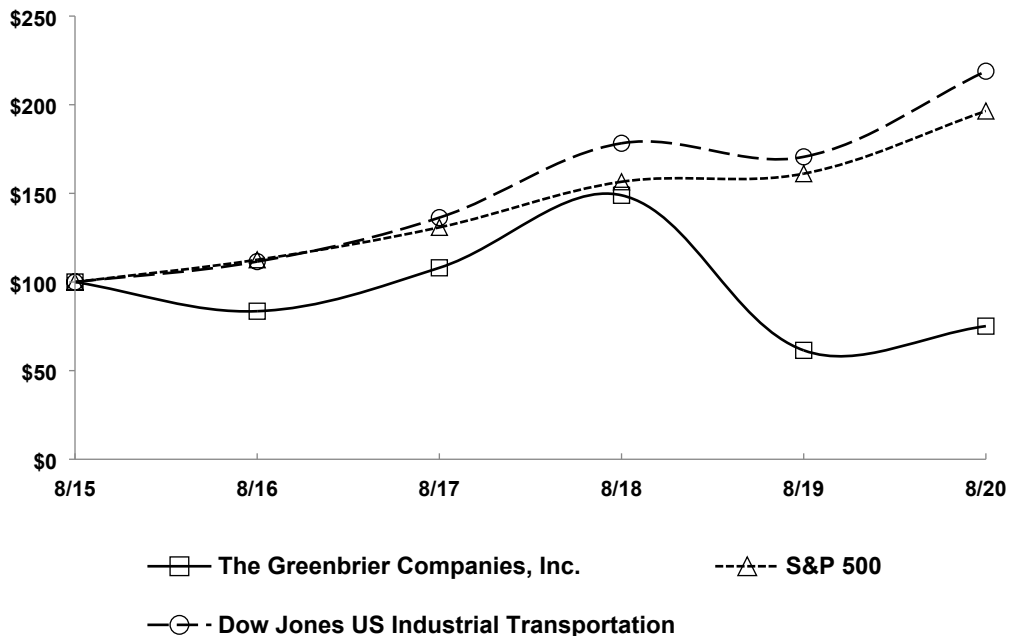
Performance Graph

The following graph demonstrates a comparison of cumulative total returns for the Company's Common Stock, the Dow Jones U.S. Industrial Transportation Index and the Standard & Poor's (S&P) 500 Index. The graph assumes an investment of \$100 on August 31, 2015 in each of the Company's Common Stock and the stocks comprising the indices. Each of the indices assumes that all dividends were reinvested and that the investment was maintained to and including August 31, 2020, the end of the Company's 2020 fiscal year.

The comparisons in this table are required by the SEC, and therefore, are not intended to forecast or be indicative of possible future performance of our Common Stock.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among The Greenbrier Companies, Inc., the S&P 500 Index
and the Dow Jones US Industrial Transportation Index



*\$100 invested on 8/31/15 in stock or index, including reinvestment of dividends.
Fiscal year ending August 31.

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Equity Compensation Plan Information

Equity Compensation Plan Information is hereby incorporated by reference to the “Equity Compensation Plan Information” table in Registrant’s definitive Proxy Statement to be filed pursuant to Regulation 14A, which Proxy Statement is anticipated to be filed with the Securities and Exchange Commission within 120 days after the end of the Registrant’s year ended August 31, 2020.

Item 6. SELECTED FINANCIAL DATA

<i>(In thousands, except unit and per share data)</i>	YEARS ENDED AUGUST 31,				
	2020	2019	2018	2017	2016
Statement of Operations Data					
Revenue:					
Manufacturing	\$2,349,971	\$2,431,499	\$2,044,586	\$1,725,188	\$2,096,331
Wheels, Repair & Parts	324,670	444,502	347,023	312,679	322,395
Leasing & Services	117,548	157,590	127,855	131,297	260,798
	<u>\$2,792,189</u>	<u>\$3,033,591</u>	<u>\$2,519,464</u>	<u>\$2,169,164</u>	<u>\$2,679,524</u>
Earnings from operations	<u>\$ 168,429</u>	<u>\$ 184,116</u>	<u>\$ 252,985</u>	<u>\$ 260,432</u>	<u>\$ 408,552</u>
Net earnings attributable to Greenbrier	<u>\$ 48,967</u>	<u>\$ 71,076</u> ⁽²⁾	<u>\$ 151,781</u> ⁽³⁾	<u>\$ 116,067</u> ⁽³⁾	<u>\$ 183,213</u>
Basic earnings per common share attributable to Greenbrier:	\$ 1.50	\$ 2.18	\$ 4.92	\$ 3.97	\$ 6.28
Diluted earnings per common share attributable to Greenbrier:	\$ 1.46	\$ 2.14	\$ 4.68	\$ 3.65	\$ 5.73
Weighted average common shares outstanding:					
Basic	32,670	32,615	30,857	29,225	29,156
Diluted	33,441	33,165	32,835	32,562	32,468
Dividends declared per common share	\$ 1.06	\$ 1.00	\$ 0.96	\$ 0.86	\$ 0.81
Balance Sheet Data					
Total assets	\$3,173,834	\$2,990,637	\$2,465,464	\$2,397,705	\$1,835,774
Revolving notes and notes payable, net	\$1,155,614	\$ 850,000	\$ 463,930	\$ 562,552	\$ 301,853
Total equity	\$1,473,055	\$1,441,697	\$1,384,215	\$1,178,893	\$1,016,827
Other Operating Data					
New railcar units delivered	19,900	22,500	19,000	15,700	20,300
New railcar backlog (units) ⁽¹⁾	24,600	30,300	27,400	28,600	27,500
New railcar backlog ⁽¹⁾	\$2,420,000	\$3,280,000	\$2,740,000	\$2,800,000	\$3,190,000
Lease fleet:					
Units managed	393,000	380,000	357,000	336,000	264,000
Units owned	8,300	9,400	8,100	8,300	8,900
Cash Flow Data					
Capital expenditures:					
Manufacturing	\$ 48,202	\$ 85,155	\$ 59,707	\$ 54,973	\$ 51,294
Wheels, Repair & Parts	11,662	13,291	5,204	3,129	10,190
Leasing & Services	7,015	99,787	111,937	27,963	77,529
	<u>\$ 66,879</u>	<u>\$ 198,233</u>	<u>\$ 176,848</u>	<u>\$ 86,065</u>	<u>\$ 139,013</u>
Proceeds from sale of assets	<u>\$ 83,484</u>	<u>\$ 125,427</u>	<u>\$ 153,224</u>	<u>\$ 24,149</u>	<u>\$ 103,715</u>
Depreciation and amortization:					
Manufacturing	\$ 78,010	\$ 49,240	\$ 44,225	\$ 33,807	\$ 27,137
Wheels, Repair & Parts	12,567	13,024	10,771	11,143	11,971
Leasing & Services	19,273	21,467	19,360	20,179	24,237
	<u>\$ 109,850</u>	<u>\$ 83,731</u>	<u>\$ 74,356</u>	<u>\$ 65,129</u>	<u>\$ 63,345</u>

- (1) Beginning in 2017, new railcar backlog units and value included our Brazilian manufacturing operations, which are accounted for under the equity method.
- (2) 2019 includes a non-cash goodwill impairment charge of \$10.0 million related to the Company's repair operations.
- (3) 2018 and 2017 includes the Company's portion of non-cash goodwill impairment charges taken by GBW Railcar Services (GBW). As the Company accounted for GBW under the equity method of accounting, its 50% share of the non-cash goodwill impairment losses recognized by GBW was \$9.5 million after-tax in 2018 and \$3.5 million after-tax in 2017.

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

Executive Summary

We achieved solid financial performance in 2020, successfully weathering and responding to the challenges of a rail freight recession and the COVID-19 pandemic. Management quickly executed on three key priorities:

- Set a goal of liquidity and cost savings to exceed \$1 billion. This goal was exceeded with liquidity at August 31, 2020 of \$920 million and almost \$200 million of cost saving initiatives and additional borrowing capacity currently in progress. Over 90% of our liquidity is in cash, further protecting us from any shocks to the banking and financial markets. Liquidity is defined as Cash and cash equivalents plus available borrowing capacity.
- Maintain continuity of operations through achieving and maintaining essential infrastructure business, or equivalent, in all our jurisdictions around the world as well as focusing on the safety of our workforce through enhanced safety protocols.
- Reduce spending through significant reductions in overhead, selling and administrative costs and capital expenditures. We have reduced employee headcount from approximately 17,100 to approximately 10,600 over the course of the year and have reduced capital expenditures by approximately \$131 million compared to 2019.

As a result of these and other actions, we delivered diluted earnings per share of \$1.46 in 2020 and achieved a gross margin of 12.6% compared to 12.1% in 2019, despite an 8% reduction in revenues. In addition, we achieved synergies of \$15 million related to the ARI acquisition, meeting our stated goal, despite the headwinds of lower volumes and travel restrictions which impacted our ability to fully identify and implement best practices.

These actions have put us in a strong position to navigate the current economic and pandemic challenges while being poised to quickly respond to improving demand as the economy and the rail freight industry recovers, as a leaner and more efficient company.

Our total manufacturing backlog of railcar units as of August 31, 2020 was approximately 24,600 with an estimated value of \$2.42 billion. Approximately 9% of backlog units and 6% of estimated backlog value as of August 31, 2020 was associated with our Brazilian manufacturing operations which is accounted for under the equity method. Backlog units for lease may be syndicated to third parties or held in our own fleet depending on a variety of factors. Multi-year supply agreements are a part of rail industry practice. A portion of the orders included in backlog reflects an assumed product mix. Under terms of the orders, the exact mix and pricing will be determined in the future, which may impact backlog. Marine backlog as of August 31, 2020 was \$51 million.

Our backlog of railcar units and marine vessels is not necessarily indicative of future results of operations. Certain orders in backlog are subject to customary documentation and completion of terms. Customers may attempt to cancel or modify orders in backlog. Historically, little variation has been experienced between the quantity ordered and the quantity actually delivered, though the timing of deliveries may be modified from time to time.

COVID-19 and the Downturn in Global Economic Activity

We are closely monitoring and managing the impacts on our business of the COVID-19 coronavirus pandemic, the significant decline in global economic activity, and governmental reactions to these historic events (“COVID-19 Events”).

Our manufacturing and service facilities continue regular operations. We function as an essential infrastructure business under guidance issued by the Department of Homeland Security. Similar guidelines and authorities exist in other nations where we operate. Since the emergence of COVID-19, our facilities in the United States have been permitted to continue to operate subject to enhanced safety protocols, both voluntary and government mandated, that aim to protect the health of our workforce and the residents of the communities in which our facilities are located. The

situation is similar in our facilities in Mexico, Europe, Brazil and Turkey which also have been permitted by applicable governmental authorities to operate subject to enhanced health and safety protocols.

Certain of our businesses recorded a decrease in operating profits compared against the year ended August 31, 2019 which we attribute primarily to the cyclical decrease in economic activity in the freight rail equipment market which began prior to the emergence of COVID-19 (“Cyclical Downturn”). The Cyclical Downturn has intensified as a result of the COVID-19 Events. Our liquidity position strengthened during the year ended August 31, 2020 due to cash flow from operations, spending reductions and increased borrowing capacity.

As described in Part I, Item 1A “Risk Factors” of this Annual Report on Form 10-K, COVID-19 Events may have a material negative impact on our business, liquidity, results of operations, and stock price. Beyond these general observations, we are unable to predict when, how, or with what magnitude COVID-19 Events, in combination with the Cyclical Downturn, will negatively impact our business due to numerous uncertainties, including the duration of the COVID-19 pandemic, the duration of the global decline in economic activity, the impact of those events to our customers, suppliers and employees, and actions that may be taken by governmental authorities, including potentially preventing or curtailing the operations of our plants and/or shops, and other consequences.

Overview

Revenue, Cost of revenue, Margin and Earnings from operations presented below, include amounts from external parties and exclude intersegment activity that is eliminated in consolidation.

<i>(In thousands, except per share amounts)</i>	Years ended August 31,		
	2020	2019	2018
Revenue:			
Manufacturing	\$ 2,349,971	\$ 2,431,499	\$ 2,044,586
Wheels, Repair & Parts	324,670	444,502	347,023
Leasing & Services	117,548	157,590	127,855
	<u>2,792,189</u>	<u>3,033,591</u>	<u>2,519,464</u>
Cost of revenue:			
Manufacturing	2,065,169	2,137,625	1,727,407
Wheels, Repair & Parts	302,189	420,890	318,330
Leasing & Services	71,700	108,590	64,672
	<u>2,439,058</u>	<u>2,667,105</u>	<u>2,110,409</u>
Margin:			
Manufacturing	284,802	293,874	317,179
Wheels, Repair & Parts	22,481	23,612	28,693
Leasing & Services	45,848	49,000	63,183
	<u>353,131</u>	<u>366,486</u>	<u>409,055</u>
Selling and administrative	204,706	213,308	200,439
Net gain on disposition of equipment	(20,004)	(40,963)	(44,369)
Goodwill impairment	—	10,025	—
Earnings from operations	168,429	184,116	252,985
Interest and foreign exchange	43,619	30,912	29,368
Earnings before income tax and earnings (loss) from unconsolidated affiliates	124,810	153,204	223,617
Income tax expense	(40,184)	(41,588)	(32,893)
Earnings before earnings (loss) from unconsolidated affiliates	84,626	111,616	190,724
Earnings (loss) from unconsolidated affiliates	2,960	(5,805)	(18,661)
Net earnings	87,586	105,811	172,063
Net earnings attributable to noncontrolling interest	(38,619)	(34,735)	(20,282)
Net earnings attributable to Greenbrier	<u>\$ 48,967</u>	<u>\$ 71,076</u>	<u>\$ 151,781</u>
Diluted earnings per common share	<u>\$ 1.46</u>	<u>\$ 2.14</u>	<u>\$ 4.68</u>

Performance for our segments is evaluated based on Earnings from operations (operating profit). Corporate includes selling and administrative costs not directly related to goods and services and certain costs that are intertwined among segments due to our integrated business model. Management does not allocate Interest and foreign exchange or Income tax expense for either external or internal reporting purposes.

<i>(In thousands)</i>	Years ended August 31,		
	2020	2019	2018
Operating profit (loss):			
Manufacturing	\$ 197,388	\$ 217,583	\$ 240,901
Wheels, Repair & Parts	9,032	(2,941)	16,731
Leasing & Services	40,927	64,763	88,481
Corporate	(78,918)	(95,289)	(93,128)
	<u>\$ 168,429</u>	<u>\$ 184,116</u>	<u>\$ 252,985</u>

Consolidated Results

<i>(In thousands)</i>	Years ended August 31,			2020 vs 2019		2019 vs 2018	
	2020	2019	2018	Increase (Decrease)	% Change	Increase (Decrease)	% Change
Revenue	\$2,792,189	\$3,033,591	\$2,519,464	\$(241,402)	(8.0)%	\$514,127	20.4%
Cost of revenue	\$2,439,058	\$2,667,105	\$2,110,409	\$(228,047)	(8.6)%	\$556,696	26.4%
Margin (%)	12.6%	12.1%	16.2%	0.6%	*	(4.1)%	*
Net earnings attributable to Greenbrier	\$ 48,967	\$ 71,076	\$ 151,781	\$ (22,109)	(31.1)%	\$ (80,705)	(53.2)%

* Not meaningful

Beginning July 26, 2019, the consolidated results included the results of the manufacturing business of ARI which were additive to revenue and cost of revenue for the year ended August 31, 2020.

Through our integrated business model, we provide a broad range of custom products and services in each of our segments, which have various average selling prices and margins. The demand for and mix of products and services delivered changes from period to period, which causes fluctuations in our results of operations.

The 8.0% decrease in revenue in 2020 compared to 2019 was primarily due to a 27.0% decrease in Wheels, Repair & Parts revenue. The decrease in Wheels, Repair & Parts revenue was primarily a result of lower wheelset, component and parts volumes due to lower demand, lower repair revenue from five fewer shops in 2020 and a decrease in scrap metal pricing. The decrease in 2020 revenue was also due to a 3.4% decrease in Manufacturing revenue from an 11.6% decrease in the volume of railcar deliveries. The 20.4% increase in revenue in 2019 compared to 2018 was primarily due to an 18.9% increase in Manufacturing revenue. The increase in Manufacturing revenue was primarily attributed to an 18.4% increase in the volume of railcar deliveries and a change in product mix. The increase in revenue was also due to a 28.1% increase in Wheels, Repair & Parts revenue primarily due to 2019 including \$87.5 million in revenue associated with the repair shops returned to us after discontinuing the GBW joint venture in August 2018.

The 8.6% decrease in cost of revenue in 2020 compared to 2019 was primarily due to a 28.2% decrease in Wheels, Repair & Parts cost of revenue. The decrease in Wheels, Repair & Parts cost of revenue was primarily a result of lower costs associated with a reduction in wheelset, component and parts volumes and five fewer repair shops in 2020. The decrease in 2020 cost of revenue was also due to a 3.4% decrease in Manufacturing cost of revenue from an 11.6% decrease in the volume of railcar deliveries. The 26.4% increase in cost of revenue in 2019 compared to 2018 was primarily due to a 23.7% increase in Manufacturing cost of revenue. The increase in Manufacturing cost of revenue was primarily attributed to an 18.4% increase in the volume of railcar deliveries and operating inefficiencies at some of our manufacturing facilities. The increase in cost of revenue was also due to a 32.2% increase in Wheels, Repair & Parts cost of revenue primarily due to 2019 including \$97.3 million in costs associated with the repair shops returned to us after discontinuing the GBW joint venture in August 2018.

Margin as a percentage of revenue was 12.6% in 2020 compared to 12.1% in 2019. The overall margin as a percentage of revenue was positively impacted in 2020 by an increase in Leasing & Services margin from 31.1% to 39.0% as a result of fewer sales of railcars that we purchased from third parties which have lower margin percentages and higher interim rent on leased railcars for syndication. Margin as a percentage of revenue was 12.1% in 2019 compared to 16.2% in 2018. The overall margin as a percentage of revenue was negatively impacted in 2019 by a decrease in Manufacturing margin to 12.1% from 15.5% primarily attributed to a change in product mix and operating inefficiencies at some of our manufacturing facilities. The decrease was also due to a decrease in Leasing & Services margin to 31.1% from 49.4%. Margin for 2019 was negatively impacted as a result of higher sales of railcars that we purchased from third parties which have lower margin percentages.

The \$22.1 million decrease in net earnings attributable to Greenbrier in 2020 compared to 2019 was primarily attributable to a reduction in Net gain on disposition of equipment, a decrease in margin, ARI integration costs and higher interest and foreign exchange. These were partially offset by synergies resulting from the integration of the manufacturing business of ARI and a reduction in selling and administrative expense in 2020 and a goodwill impairment in 2019 related to our repair operations. The \$80.7 million decrease in net earnings attributable to Greenbrier in 2019 compared to 2018 was primarily attributable to a decrease in margin, costs associated with the acquisition of the manufacturing business of ARI and a \$10.0 million goodwill impairment charge for which there was no tax benefit related to our repair operations.

Manufacturing Segment

<i>(In thousands, except railcar deliveries)</i>	Years ended August 31,			2020 vs 2019		2019 vs 2018	
	2020	2019	2018	Increase (Decrease)	% Change	Increase (Decrease)	% Change
Revenue	\$2,349,971	\$2,431,499	\$2,044,586	\$(81,528)	(3.4)%	\$386,913	18.9%
Cost of revenue	\$2,065,169	\$2,137,625	\$1,727,407	\$(72,456)	(3.4)%	\$410,218	23.7%
Margin (%)	12.1%	12.1%	15.5%	0.0%	*	(3.4)%	*
Operating profit (\$)	\$ 197,388	\$ 217,583	\$ 240,901	\$(20,195)	(9.3)%	\$(23,318)	(9.7)%
Operating profit (%)	8.4%	8.9%	11.8%	(0.5)%	*	(2.9)%	*
Deliveries	19,900	22,500	19,000	(2,600)	(11.6)%	3,500	18.4%

* Not meaningful

Beginning July 26, 2019, the Manufacturing segment included the results of the manufacturing business of ARI which were additive to Manufacturing revenue and cost of revenue for the year ended August 31, 2020.

Manufacturing revenue decreased \$81.5 million or 3.4% in 2020 compared to 2019 primarily attributed to an 11.6% decrease in the volume of railcar deliveries. The decrease in revenue was partially offset by a change in product mix and the additional revenue in 2020 associated with the acquired manufacturing business of ARI. Manufacturing revenue increased \$386.9 million or 18.9% in 2019 compared to 2018, of which \$43.5 million related to the addition of the manufacturing business of ARI. The increase in revenue was primarily attributed to an 18.4% increase in the volume of railcar deliveries and a change in product mix.

Manufacturing cost of revenue decreased \$72.5 million or 3.4% in 2020 compared to 2019 primarily attributed to an 11.6% decrease in the volume of railcar deliveries. The decrease in cost of revenue was partially offset by the additional cost of revenue in 2020 associated with the acquired manufacturing business of ARI and a change in product mix. Manufacturing cost of revenue increased \$410.2 million or 23.7% in 2019 compared to 2018. The increase in cost of revenue was primarily attributed to an 18.4% increase in the volume of railcar deliveries and operating inefficiencies at some of our manufacturing facilities.

Manufacturing margin as a percentage of revenue was 12.1% for both 2020 and 2019. Manufacturing margin was positively impacted by synergies in 2020 resulting from the integration of the manufacturing business of ARI. This was partially offset by an increase in severance expense, ARI integration costs and increased costs associated with operating our manufacturing facilities during the COVID-19 pandemic in 2020. Manufacturing margin as a percentage of revenue decreased 3.4% in 2019 compared to 2018. The decrease was primarily attributed to a change in product mix and operating inefficiencies at some of our manufacturing facilities. These were partially offset by higher volumes of new railcar sales with leases attached which typically result in enhanced sales prices and margins.

Manufacturing operating profit decreased \$20.2 million or 9.3% in 2020 compared to 2019. The decrease was primarily attributed to a reduction in the volume of railcar deliveries, severance expense, ARI integration costs and increased costs associated with operating our manufacturing facilities during the COVID-19 pandemic in 2020. This was partially offset by synergies in 2020 resulting from the integration of the manufacturing business of ARI. Manufacturing operating profit decreased \$23.3 million or 9.7% in 2019 compared to 2018. The decrease was primarily attributed to a lower margin percentage from a change in product mix and operating inefficiencies at some of our manufacturing facilities.

Wheels, Repair & Parts Segment

<i>(In thousands)</i>	Years ended August 31,			2020 vs 2019		2019 vs 2018	
	2020	2019	2018	Increase (Decrease)	% Change	Increase (Decrease)	% Change
Revenue	\$324,670	\$444,502	\$347,023	\$ (119,832)	(27.0)%	\$ 97,479	28.1%
Cost of revenue	\$302,189	\$420,890	\$318,330	\$ (118,701)	(28.2)%	\$ 102,560	32.2%
Margin (%)	6.9%	5.3%	8.3%	1.6%	*	(3.0)%	*
Operating profit (\$)	\$ 9,032	\$ (2,941)	\$ 16,731	\$ 11,973	*	\$ (19,672)	(117.6)%
Operating profit (%)	2.8%	(0.7)%	4.8%	3.5%	*	(5.5)%	*

* Not meaningful

On August 20, 2018, 12 repair shops were returned to us as a result of discontinuing our GBW railcar repair joint venture. Beginning on August 20, 2018, the results of operations from these repair shops were included in the Wheels, Repair & Parts segment as they are now consolidated for financial reporting purposes.

Wheels, Repair & Parts revenue decreased \$119.8 million or 27.0% in 2020 compared to 2019. The decrease was primarily due to lower wheelset, component and parts volumes due to lower demand, a decrease in scrap metal pricing and lower repair revenue primarily from five fewer shops in 2020. Wheels, Repair & Parts revenue increased \$97.5 million or 28.1% in 2019 compared to 2018. The increase was primarily due to 2019 including \$87.5 million in revenue associated with the repair shops returned to us after discontinuing the GBW joint venture in August 2018. The increase was also due to higher parts revenue due to an increase in demand.

Wheels, Repair & Parts cost of revenue decreased \$118.7 million or 28.2% in 2020 compared to 2019. The decrease was primarily due to lower costs associated with a reduction in wheelset, component and parts volumes and five fewer repair shops in 2020. Wheels, Repair & Parts cost of revenue increased \$102.6 million or 32.2% in 2019 compared to 2018. The increase was primarily due to 2019 including \$97.3 million in cost of revenue associated with the repair shops returned to us after discontinuing the GBW joint venture in August 2018. The increase was also due to increased parts volumes and costs associated with closing sites in our repair network.

Wheels, Repair & Parts margin as a percentage of revenue increased 1.6% in 2020 compared to 2019. The increase was primarily attributed to efficiencies at our repair shops in 2020. In addition, 2019 was negatively impacted by costs associated with closing sites in our repair network. These factors which had a positive impact to Wheels, Repair & Parts margin as a percentage of revenue in 2020 compared to 2019, were partially offset by a decrease in scrap metal pricing and increased costs associated with operating our facilities during the COVID-19 pandemic in 2020. Wheels, Repair & Parts margin as a percentage of revenue decreased 3.0% in 2019 compared to 2018. The decrease was primarily attributed to inefficiencies at our repair operations and costs associated with closing sites in our repair network in 2019. This was partially offset by a favorable parts product mix.

Wheels, Repair & Parts operating profit increased \$12.0 million in 2020 compared to 2019. The increase was due to 2019 being negatively impacted by a \$10.0 million goodwill impairment and costs associated with closing sites in our repair network. Wheels, Repair & Parts operating profit decreased \$19.7 million in 2019 compared to 2018. The decrease was primarily attributed to a \$10.0 million goodwill impairment charge recognized in 2019 due to challenges at our repair operations and costs associated with closing sites in our repair network. This was partially offset by higher parts revenue and a more favorable parts product mix.

Leasing & Services Segment

<i>(In thousands)</i>	Years ended August 31,			2020 vs 2019		2019 vs 2018	
	2020	2019	2018	Increase (Decrease)	% Change	Increase (Decrease)	% Change
Revenue	\$ 117,548	\$ 157,590	\$ 127,855	\$ (40,042)	(25.4)%	\$ 29,735	23.3%
Cost of revenue	\$ 71,700	\$ 108,590	\$ 64,672	\$ (36,890)	(34.0)%	\$ 43,918	67.9%
Margin (%)	39.0%	31.1%	49.4%	7.9%	*	(18.3)%	*
Operating profit (\$)	\$ 40,927	\$ 64,763	\$ 88,481	\$ (23,836)	(36.8)%	\$ (23,718)	(26.8)%
Operating profit (%)	34.8%	41.1%	69.2%	(6.3)%	*	(28.1)%	*

* Not meaningful

The Leasing & Services segment generates revenue from leasing railcars from its lease fleet, providing various management services, interim rent on leased railcars for syndication, and the sale of railcars purchased from third parties with the intent to resell. The gross proceeds from the sale of these railcars are recorded in revenue and the costs of purchasing these railcars are recorded in cost of revenue.

Leasing & Services revenue decreased \$40.0 million or 25.4% in 2020 compared to 2019. The decrease was primarily attributed to a decrease in the sale of railcars which we had purchased from third parties with the intent to resell. This was partially offset by higher interim rent on leased railcars for syndication. Leasing & Services revenue increased \$29.7 million or 23.3% in 2019 compared to 2018. The increase was primarily attributed to an increase in the sale of railcars which we had purchased from third parties with the intent to resell. This was partially offset by lower interim rent on leased railcars for syndication.

Leasing & Services cost of revenue decreased \$36.9 million or 34.0% in 2020 compared to 2019. The decrease was primarily due to a decrease in the volume of railcars sold that we purchased from third parties partially offset by higher storage costs. Leasing & Services cost of revenue increased \$43.9 million or 67.9% in 2019 compared to 2018. The increase was primarily due to an increase in the volume of railcars sold that we purchased from third parties and higher transportation costs.

Leasing & Services margin as a percentage of revenue increased 7.9% in 2020 compared to 2019. Margin as a percentage of revenue for 2020 benefited from fewer sales of railcars that we purchased from third parties which have lower margin percentages. The increase in margin in 2020 as a percentage of revenue was also due to higher interim rent on leased railcars for syndication. Leasing & Services margin as a percentage of revenue decreased 18.3% in 2019 compared to 2018. Margin for 2019 was negatively impacted from higher sales of railcars that we purchased from third parties which have lower margin percentages. The decrease in margin was also due to higher transportation costs.

Leasing & Services operating profit decreased \$23.8 million or 36.8% in 2020 compared to 2019. The decrease was primarily attributed to an \$18.4 million decrease in net gain on disposition of equipment. Leasing & Services operating profit decreased \$23.7 million or 26.8% in 2019 compared to 2018. The decrease was attributed to a \$14.2 million decrease in margin primarily due to higher transportation costs and lower interim rent on leased railcars for syndication. The decrease was also attributed to a \$6.8 million decrease in net gain on disposition of equipment.

The percentage of owned units on lease was 90.4%, 93.3% and 94.4% at August 31, 2020, 2019 and 2018, respectively.

Selling and Administrative

<i>(In thousands)</i>	Years ended August 31,			2020 vs 2019		2019 vs 2018	
	2020	2019	2018	Increase (Decrease)	% Change	Increase (Decrease)	% Change
	Selling and Administrative	\$ 204,706	\$ 213,308	\$ 200,439	\$ (8,602)	(4.0)%	\$ 12,869

Selling and administrative expense was \$204.7 million or 7.3% of revenue for the year ended August 31, 2020, \$213.3 million or 7.0% of revenue for the year ended August 31, 2019 and \$200.4 million or 8.0% of revenue for the year ended August 31, 2018.

The \$8.6 million decrease in 2020 compared to 2019 was primarily attributed to \$18.7 million in costs incurred in 2019 associated with the acquisition of the manufacturing business of ARI. This was partially offset by \$9.6 million from the addition of the manufacturing business of ARI selling and administrative costs in 2020.

The \$12.9 million increase in 2019 compared to 2018 was primarily attributed to \$18.7 million in costs associated with the acquisition of the manufacturing business of ARI and the addition of the selling and administrative costs from the repair shops returned to us after discontinuing the GBW joint venture and the manufacturing business of ARI. These increases in selling and administrative costs were partially offset by a \$7.6 million decrease in employee costs primarily related to a decrease in incentive compensation.

Net Gain on Disposition of Equipment

Net gain on disposition of equipment was \$20.0 million, \$41.0 million and \$44.4 million for the years ended August 31, 2020, 2019 and 2018, respectively. Net gain on disposition of equipment primarily includes the sale of assets from our lease fleet (Equipment on operating leases, net) that are periodically sold in the normal course of business in order to accommodate customer demand and to manage risk and liquidity; disposition of property, plant and equipment; and insurance proceeds received for business interruption and assets destroyed in a fire.

Goodwill Impairment

Based on the results of our annual impairment test, a non-cash impairment charge of \$10.0 million was recorded during 2019 related to our repair operations. There was no goodwill impairment charge recorded during 2020 or 2018.

Interest and Foreign Exchange

Interest and foreign exchange expense was composed of the following:

<i>(In thousands)</i>	Years ended August 31,			Increase (decrease)	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
Interest and foreign exchange:					
Interest and other expense	\$ 42,386	\$ 32,260	\$ 30,946	\$ 10,126	\$ 1,314
Foreign exchange (gain) loss	1,233	(1,348)	(1,578)	2,581	\$ 230
	<u>\$ 43,619</u>	<u>\$ 30,912</u>	<u>\$ 29,368</u>	<u>\$ 12,707</u>	<u>\$ 1,544</u>

Interest and foreign exchange increased \$12.7 million in 2020 from 2019 primarily due to interest expense associated with our \$300 million of senior term debt issued in July 2019 and an increase in revolving notes borrowings. The increase in borrowings was a proactive response to uncertainties from the COVID-19 coronavirus pandemic and the decline in global economic activity.

Interest and foreign exchange increased \$1.5 million in 2019 from 2018 primarily due to interest expense associated with our \$225 million senior term debt issued in September 2018.

Income Tax

In 2020 our income tax expense was \$40.2 million on \$124.8 million of pre-tax earnings for an effective tax rate of 32.2%. The increase in the effective rate from 2019 was primarily attributable to higher net unfavorable discrete items primarily related to changes in foreign currency exchange rates for our U.S. Dollar denominated foreign operations for the year ended August 31, 2020. Excluding the impact of discrete items in both periods, the effective tax rate was 24.2% for the year ended August 31, 2020 compared to 27.1% for the year ended August 31, 2019, which decreased primarily due to the geographic mix of earnings.

In 2019 our income tax expense was \$41.6 million on \$153.2 million of pre-tax earnings for an effective tax rate of 27.1%. The 2019 tax rate was impacted by a goodwill impairment charge for which there was no tax benefit. Excluding the impact of the goodwill impairment charge, the tax rate for 2019 was 25.5%. In 2018 our income tax expense was \$32.9 million on \$223.6 million of pre-tax earnings for an effective tax rate of 14.7%.

The reduction in the 2018 tax rate was primarily due to the enactment of the Tax Act on December 22, 2017. The Tax Act made significant changes to U.S. federal income tax laws, including, but not limited to, a reduction of the corporate tax rate from 35% to 21% and a transition tax on foreign earnings not previously subject to U.S. taxation. As a result, deferred income taxes were remeasured as a result of the new statutory rate which resulted in a one-time tax benefit of \$33.6 million offset, in part, by the accrual of the transition tax of \$8.9 million.

The effective tax rate can fluctuate year-to-year due to discrete items and changes in the mix of foreign and domestic pre-tax earnings. It can also fluctuate with changes in the proportion of pre-tax earnings attributable to our Mexican railcar manufacturing joint venture. The joint venture is treated as a partnership for tax purposes and, as a result, the partnership's entire pre-tax earnings are included in Earnings before income taxes and earnings from unconsolidated affiliates, whereas only our 50% share of the tax is included in Income tax expense.

Earnings (Loss) From Unconsolidated Affiliates

Through unconsolidated affiliates we produce rail and industrial components and have an ownership stake in a railcar manufacturer in Brazil. In addition, in 2018 we had an investment in the GBW joint venture. We record the after-tax results from these unconsolidated affiliates.

Earnings from unconsolidated affiliates was \$3.0 million for the year ended August 31, 2020 and primarily related to our rail component manufacturing operations. Loss from unconsolidated affiliates was \$5.8 million for the year ended August 31, 2019 and primarily related to losses at our operations in Brazil. Loss from unconsolidated affiliates was \$18.7 million for the year ended August 31, 2018 and primarily related to the results of the GBW joint venture. In addition in 2018, a pre-tax goodwill impairment loss of \$26.4 million was recognized related to GBW. As we accounted for GBW under the equity method of accounting, our 50% share of the non-cash goodwill impairment loss recognized by GBW was \$9.5 million after-tax in 2018, which was included as part of Earnings (loss) from unconsolidated affiliates on our Consolidated Statement of Income.

Net Earnings Attributable to Noncontrolling Interest

Net earnings attributable to noncontrolling interest was \$38.6 million, \$34.7 million and \$20.3 million for the years ended August 31, 2020, 2019 and 2018, respectively, which primarily represents our joint venture partner's share in the results of operations of our Mexican railcar manufacturing joint ventures, adjusted for intercompany sales, and our European partner's share of the results of our European operations.

Liquidity and Capital Resources

<i>(In thousands)</i>	Years Ended August 31,		
	2020	2019	2018
Net cash provided by (used in) operating activities	\$ 272,261	\$ (21,241)	\$ 103,341
Net cash provided by (used in) investing activities	27,483	(443,981)	(80,292)
Net cash provided by (used in) financing activities	216,455	276,901	(89,267)
Effect of exchange rate changes	(12,599)	(12,666)	(14,666)
Net increase (decrease) in cash and cash equivalents and restricted cash	<u>\$ 503,600</u>	<u>\$ (200,987)</u>	<u>\$ (80,884)</u>

We have been financed through cash generated from operations and borrowings. At August 31, 2020 cash and cash equivalents and restricted cash were \$842.1 million, an increase of \$503.6 million from \$338.5 million at the prior year end. The increase in cash and cash equivalents included proactively drawing on available credit facilities in response to uncertainties from the COVID-19 coronavirus pandemic and the decline in global economic activity.

The change in cash provided by (used in) operating activities in 2020 compared to 2019 was primarily due to a net change in working capital. The change in cash provided by (used in) operating activities in 2019 compared to 2018 was primarily due to lower earnings and a net change in working capital due to an increase in production.

The change in cash provided by (used in) investing activities in 2020 compared to 2019 was primarily attributable to the acquisition of the manufacturing business of ARI in 2019 and a decrease in capital expenditures in 2020 partially offset by a decrease in the proceeds from the sales of assets. The change in cash provided by (used in) investing activities in 2019 compared to 2018 was primarily attributable to the acquisition of the manufacturing business of ARI in 2019.

Capital expenditures totaled \$66.9 million, \$198.2 million and \$176.8 million for the years ended August 31, 2020, 2019 and 2018, respectively. Manufacturing capital expenditures were approximately \$48.2 million, \$85.1 million and \$59.7 million for the years ended August 31, 2020, 2019 and 2018, respectively. Wheels, Repair & Parts capital expenditures were approximately \$11.7 million, \$13.3 million and \$5.2 million for the years ended August 31, 2020, 2019 and 2018, respectively. Leasing & Services and corporate capital expenditures were approximately \$7.0 million, \$99.8 million and \$111.9 million for the years ended August 31, 2020, 2019 and 2018, respectively. Capital expenditures for 2021 primarily relate to continued investments into the safety and productivity of our facilities and opportunistic additions to our lease fleet.

Proceeds from the sale of assets, which primarily related to sales of railcars from our lease fleet within Leasing & Services, were approximately \$83.5 million, \$125.4 million and \$153.2 million for the years ended August 31, 2020, 2019 and 2018, respectively. Assets from our lease fleet are periodically sold in the normal course of business in order to accommodate customer demand and to manage risk and liquidity.

The change in cash provided by (used in) financing activities in 2020 compared to 2019 was primarily attributed to a decrease in the proceeds of debt, net of repayments and a change in the net activities with joint venture partners. The change in cash provided by (used in) financing activities in 2019 compared to 2018 was primarily attributed to proceeds from the issuance of notes payable and a change in the net activities with joint venture partners.

A quarterly dividend of \$0.27 per share was declared on October 21, 2020.

The Board of Directors has authorized our company to repurchase shares of our common stock. In January 2019, the expiration date of this share repurchase program was extended from March 31, 2019 to March 31, 2021 and the amount remaining for repurchase was increased from \$88 million to \$100 million. Under the share repurchase program, shares of common stock may be purchased on the open market or through privately negotiated transactions from time to time. The timing and amount of purchases will be based upon market conditions, securities law limitations and other factors. The program may be modified, suspended or discontinued at any time without prior notice. The share repurchase program does not obligate us to acquire any specific number of shares in any period. There were no shares repurchased under the share repurchase program in 2020, 2019 or 2018.

In July 2019, as part of the acquisition of the manufacturing business of ARI, we entered into new \$300 million senior term debt. The maturity date is June 2024 unless the 2.875% Convertible senior notes due July 2024 are outstanding as of November 1, 2023, in which case the debt matures on that date. The debt bears a floating interest rate of LIBOR plus 1.5% with principal of \$3.75 million paid quarterly in arrears and a balloon payment of \$232.5 million due at maturity. An interest rate swap agreement was entered into on 50% of the initial balance to swap the floating interest rate of LIBOR plus 1.5% to a fixed rate of 3.19%.

In July 2019, as part of the acquisition of the manufacturing business of ARI, we issued \$50 million in convertible senior notes, due 2024. The convertible senior note bears interest at a fixed rate of 2.25%, paid semi-annually in arrears on February 1st and August 1st. The convertible notes mature on July 26, 2024, unless earlier repurchased by us or converted in accordance with their terms. Upon the satisfaction of certain conditions, holders may convert at their option at any time prior to the business day immediately preceding the stated maturity date.

In September 2018, we refinanced approximately \$170 million of existing senior term debt, due in March 2020, secured by a pool of leased railcars with new 5-year \$225 million senior term debt also secured by a pool of leased railcars. The new debt bears a floating interest rate of LIBOR plus 1.50% or Prime plus 0.50%. The term loan is to be repaid in equal quarterly installments of \$1.97 million with the remaining outstanding amounts, plus accrued interest, to be paid on the maturity date in September 2023. An interest rate swap agreement was entered into on 50% of the initial balance to swap the floating interest rate to a fixed rate of 4.49%.

Our 3.5% convertible senior notes due 2018 matured on April 1, 2018. The conversion of these notes resulted in the issuance of an additional 3.4 million shares of our common stock. These additional shares have historically been included in the calculation of diluted earnings per share.

Senior secured credit facilities, consisting of three components, aggregated to \$733.2 million as of August 31, 2020. We had an aggregate of \$85.9 million available to draw down under committed credit facilities as of August 31, 2020. This amount consists of \$29.2 million available on the North American credit facility, \$21.7 million on the European credit facilities and \$35.0 million on the Mexican railcar manufacturing joint venture credit facilities.

As of August 31, 2020, a \$600.0 million revolving line of credit, maturing June 2024, secured by substantially all of our assets in the U.S. not otherwise pledged as security for term loans, existed to provide working capital and interim financing of equipment, principally for the U.S. and Mexican operations. Advances under this North American credit facility bear interest at LIBOR plus 1.50% or Prime plus 0.50% depending on the type of borrowing. Available borrowings under the credit facility are generally based on defined levels of eligible inventory, receivables, property, plant and equipment and leased equipment, as well as total debt to consolidated capitalization and fixed charges coverage ratios.

As of August 31, 2020, lines of credit totaling \$68.2 million secured by certain of our European assets, with variable rates that range from Warsaw Interbank Offered Rate (WIBOR) plus 1.1% to WIBOR plus 1.5% and Euro Interbank Offered Rate (EURIBOR) plus 1.1%, were available for working capital needs of our European manufacturing operations. The European lines of credit include a \$16.4 million facility which is guaranteed by us. European credit facilities are regularly renewed. Currently, these European credit facilities have maturities that range from December 2020 through September 2022.

As of August 31, 2020, our Mexican railcar manufacturing joint venture had two lines of credit totaling \$65.0 million. The first line of credit provides up to \$30.0 million and matures in June 2024. Advances under this facility bear interest at LIBOR plus 3.75% to 4.25%. The second line of credit provides up to \$35.0 million, of which we and our joint venture partner have each guaranteed 50%. Advances under this facility bear interest at LIBOR plus 3.75%. The Mexican railcar manufacturing joint venture will be able to draw amounts available under this facility through June 2021.

As of August 31, 2020, outstanding commitments under the senior secured credit facilities consisted of \$28.7 million in letters of credit and \$275.0 million in borrowings under the North American credit facility, \$46.5 million outstanding under the European credit facilities and \$30.0 million outstanding under the Mexican credit facilities.

The revolving and operating lines of credit, along with notes payable, contain covenants with respect to us and our various subsidiaries, the most restrictive of which, among other things, limit our ability to: incur additional

indebtedness or guarantees; pay dividends or repurchase stock; enter into financing leases; create liens; sell assets; engage in transactions with affiliates, including joint ventures and non U.S. subsidiaries, including but not limited to loans, advances, equity investments and guarantees; enter into mergers, consolidations or sales of substantially all our assets; and enter into new lines of business. The covenants also require certain maximum ratios of debt to total capitalization and minimum levels of fixed charges (interest plus rent) coverage. As of August 31, 2020, we were in compliance with all such restrictive covenants.

From time to time, we may seek to repurchase or otherwise retire or exchange securities, including outstanding notes, borrowings and equity securities, and take other steps to reduce our debt or otherwise improve our balance sheet. These actions may include open market repurchases, unsolicited or solicited privately negotiated transactions or other retirements, repurchases or exchanges. Such retirements, repurchases or exchanges, if any, will depend on a number of factors, including, but not limited to, prevailing market conditions, trading levels of our debt, our liquidity requirements and contractual restrictions, if applicable. The amounts involved in any such transactions may, individually or in the aggregate, be material and may involve all or a portion of a particular series of notes or other indebtedness which may reduce the float and impact the trading market of notes or other indebtedness which remain outstanding.

We have global operations that conduct business in their local currencies as well as other currencies. To mitigate the exposure to transactions denominated in currencies other than the functional currency, we enter into foreign currency forward exchange contracts with established financial institutions to protect the margin on a portion of foreign currency sales in firm backlog. Given the strong credit standing of the counterparties, no provision has been made for credit loss due to counterparty non-performance.

As of August 31, 2020, we had a \$4.5 million note receivable from Amsted-Maxion Cruzeiro, our unconsolidated Brazilian castings and components manufacturer and a \$3.8 million note receivable balance from Greenbrier-Maxion, our unconsolidated Brazilian railcar manufacturer. These note receivables are included on the Consolidated Balance Sheet in Accounts receivable, net. In the future, we may make loans to or provide guarantees for Amsted-Maxion Cruzeiro or Greenbrier-Maxion.

We expect existing funds and cash generated from operations, together with proceeds from financing activities including borrowings under existing credit facilities and long-term financings, to be sufficient to fund expected debt repayments, working capital needs, planned capital expenditures, additional investments in our unconsolidated affiliates and dividends during the next twelve months.

The following table shows our estimated future contractual cash obligations as of August 31, 2020:

<i>(In thousands)</i>	Years Ending August 31,						
	Total	2021	2022	2023	2024	2025	Thereafter
Notes payable	\$ 833,993	\$ 32,375	\$ 23,716	\$ 23,296	\$ 754,522	\$ 84	\$ —
Interest (1)	69,175	21,804	19,661	19,159	8,551	—	—
Railcar & operating leases	72,875	13,874	12,412	12,036	10,768	6,304	17,481
Revolving notes	351,526	351,526	—	—	—	—	0
Other	217	217	—	—	—	—	—
	<u>\$ 1,327,786</u>	<u>\$ 419,796</u>	<u>\$ 55,789</u>	<u>\$ 54,491</u>	<u>\$ 773,841</u>	<u>\$ 6,388</u>	<u>\$ 17,481</u>

(1) A portion of the estimated future cash obligation relates to interest on variable rate borrowings.

Due to uncertainty with respect to the timing of future cash flows associated with our unrecognized tax benefits at August 31, 2020, we are unable to estimate the period of cash settlement with the respective taxing authority. Therefore, approximately \$6.6 million in uncertain tax positions, including interest, have been excluded from the contractual table above. See Note 17 to the Consolidated Financial Statements for a discussion on income taxes.

Off Balance Sheet Arrangements

We do not currently have off balance sheet arrangements that have or are likely to have a material current or future effect on our Consolidated Financial Statements.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the U.S. requires judgment on the part of management to arrive at estimates and assumptions on matters that are inherently uncertain. These estimates may affect the amount of assets, liabilities, revenue and expenses reported in the financial statements and accompanying notes and disclosure of contingent assets and liabilities within the financial statements. Estimates and assumptions are periodically evaluated and may be adjusted in future periods. Actual results could differ from those estimates.

Income taxes - The asset and liability method is used to account for income taxes. We are required to estimate the timing of the recognition of deferred tax assets and liabilities, make assumptions about the future deductibility of deferred tax assets and assess deferred tax liabilities based on enacted law and tax rates for each tax jurisdiction to determine the amount of deferred tax assets and liabilities. Deferred income taxes are provided for the temporary effects of differences between assets and liabilities recognized for financial statement and income tax reporting purposes. Valuation allowances reduce deferred tax assets to an amount that will more likely than not be realized. We recognize liabilities for uncertain tax positions based on whether evidence indicates that it is more likely than not that the position will be sustained on audit. It is inherently difficult and subjective to estimate such amounts, as this requires us to estimate the probability of various possible outcomes. We reevaluate these uncertain tax positions on a quarterly basis. Changes in tax law or court interpretations may result in the recognition of a tax benefit or an additional charge to the tax provision.

Warranty accruals - Warranty costs to cover a defined warranty period are estimated and charged to operations. The estimated warranty cost is based on historical warranty claims for each particular product type. For new product types without a warranty history, preliminary estimates are based on historical information for similar product types. These estimates are inherently uncertain as they are based on historical data for existing products and judgment for new products. If warranty claims are made in the current period for issues that have not historically been the subject of warranty claims and were not taken into consideration in establishing the accrual or if claims for issues already considered in establishing the accrual exceed expectations, warranty expense may exceed the accrual for that particular product. Conversely, there is the possibility that claims may be lower than estimates. The warranty accrual is periodically reviewed and updated based on warranty trends. However, as we cannot predict future claims, the potential exists for the difference in any one reporting period to be material.

Environmental costs - At times we may be involved in various proceedings related to environmental matters. We estimate future costs for known environmental remediation requirements and accrue for them when it is probable that we have incurred a liability and the related costs can be reasonably estimated based on currently available information. If further developments in or resolution of an environmental matter result in facts and circumstances that are significantly different than the assumptions used to develop these reserves, the accrual for environmental remediation could be materially understated or overstated. Adjustments to these liabilities are made when additional information becomes available that affects the estimated costs to study or remediate any environmental issues or when expenditures for which reserves are established are made. Due to the uncertain nature of environmental matters, there can be no assurance that we will not become involved in future litigation or other proceedings or, if we were found to be responsible or liable in any litigation or proceeding, that such costs would not be material to us.

Revenue recognition - We measure revenue at the amounts that reflect the consideration to which we expect to be entitled in exchange for transferring control of goods and services to customers. We recognize revenue either at the point in time or over the period of time that performance obligations to customers are satisfied. Payment terms vary by segment and product type and are generally due within normal commercial terms. Our contracts with customers may include multiple performance obligations (e.g. railcars, maintenance, management services, etc.). For such arrangements, we allocate revenues to each performance obligation based on its relative standalone selling price. We have disaggregated revenue from contracts with customers into categories which describe the principal activities from which we generate our revenues.

Manufacturing

Railcars are manufactured in accordance with contracts with customers. We recognize revenue upon our customers' acceptance of the completed railcars at a specified delivery point. From time to time, we enter into multi-year supply agreements. Each railcar delivery is considered a distinct performance obligation, such that the amounts that are recognized as revenue following railcar delivery are generally not subject to change.

We typically recognize marine vessel manufacturing revenue over time using the cost input method, based on progress toward contract completion measured by actual costs incurred to date in relation to the estimate of total expected costs. This method best depicts our performance in completing the construction of the marine vessel for the customer and is consistent with the percentage of completion method used prior to the adoption of Topic 606: *Contracts with Customers* (Topic 606).

Wheels, Repair & Parts

We operate a network of wheel, repair and parts shops in North America that provide complete wheelset reconditioning and railcar repair services.

Wheels revenue is recognized when wheelsets are shipped to the customer or when consumed by customers in the case of consignment arrangements. Parts revenue is recognized upon shipment of the parts to the customers.

Repair revenue is typically recognized over time using the cost input method, based on progress toward contract completion measured by actual costs incurred to date in relation to the estimate of total expected costs. This method best depicts our performance in repairing the railcars for the customer. Repair services are typically completed in less than 90 days.

Leasing & Services

We own a fleet of new and used railcars which are leased to third-party customers. Lease revenue is recognized over the lease-term in the period in which it is earned.

Syndication transactions represent new and used railcars which have been placed on lease to a customer and which we intend to sell to an investor with the lease attached. At the time of such sale, revenue and cost of revenue associated with railcars that we have manufactured are recognized in the Manufacturing segment; while revenue and cost of revenue associated with railcars which were obtained from a third-party with the intent to resell and subsequently sold, are recognized in the Leasing & Services segment.

We enter into multi-year contracts to provide management and maintenance services to customers for which revenue is generally recognized on a straight-line basis over the contract term as a stand-ready obligation. Costs to fulfill these contracts are recognized as incurred.

Goodwill and acquired intangible assets - We periodically acquire businesses in purchase transactions in which the allocation of the purchase price may result in the recognition of goodwill and other intangible assets. The determination of the value of such intangible assets requires management to make estimates and assumptions. These estimates affect the amount of future period amortization and possible impairment charges.

Goodwill and indefinite-lived intangible assets are tested for impairment annually during the third quarter. The provisions of ASC 350 Intangibles – Goodwill and Other, require that we perform this test by comparing the fair value of each reporting unit with its carrying value. We determine the fair value of our reporting units based on a weighting of income and market approaches. Under the income approach, we calculate the fair value of a reporting unit based on the present value of estimated future cash flows which incorporates forecasted revenues, long-term growth rate, gross margin percentages, operating expenses, short-term net working capital changes, other cash flows and the use of discount rates. Under the market approach, we estimate the fair value based on observed market multiples for comparable businesses. An impairment loss is recorded to the extent that the reporting unit's carrying amount exceeds the reporting unit's fair value. An impairment loss cannot exceed the total amount of goodwill allocated to the reporting unit. Goodwill and indefinite-lived intangible assets are also tested more frequently if changes in circumstances or the occurrence of events indicates that a potential impairment exists. When changes in circumstances,

such as a decline in the market price of our common stock, changes in demand or in the numerous variables associated with the judgments, assumptions and estimates made in assessing the appropriate valuation of goodwill indicate the carrying amount of certain indefinite lived assets may not be recoverable, the assets are evaluated for impairment.

We performed our annual goodwill impairment test during the third quarter of 2020 and we concluded that goodwill was not impaired. The estimated fair value of goodwill in both the Europe Manufacturing and Wheels & Parts reporting units exceeded its carrying value by approximately 5% and 9%, respectively. Since the estimated fair values were not substantially in excess of their carrying values, we may be at risk for an impairment loss in the future if expected profitability trends assumed in the fair value calculation are not realized.

As of August 31, 2020, our goodwill balance was \$130.3 million of which \$87.0 million related to our Manufacturing segment and \$43.3 million related to our Wheels, Repair & Parts segment. Our Manufacturing segment includes the North America Manufacturing reporting unit with a goodwill balance of \$56.6 million; and the Europe Manufacturing reporting unit with a goodwill balance of \$30.4 million.

New Accounting Pronouncements

See Note 2 of Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Exchange Risk

We have global operations that conduct business in their local currencies as well as other currencies. To mitigate the exposure to transactions denominated in currencies other than the functional currency of each entity, we enter into foreign currency forward exchange contracts to protect revenue or margin on a portion of forecasted foreign currency sales and expenses. At August 31, 2020 exchange rates, notional amounts of forward exchange contracts for the purchase of Polish Zlotys and the sale of Euros aggregated to \$48.5 million. Because of the variety of currencies in which purchases and sales are transacted and the interaction between currency rates, it is not possible to predict the impact of a movement in a single foreign currency exchange rate would have on future operating results.

In addition to exposure to transaction gains or losses, we are also exposed to foreign currency exchange risk related to the net asset position of our foreign subsidiaries. At August 31, 2020, net assets of foreign subsidiaries aggregated \$158.3 million and a 10% strengthening of the U.S. Dollar relative to the foreign currencies would result in a decrease in equity of \$15.8 million, or 1.2% of Total equity - Greenbrier. This calculation assumes that each exchange rate would change in the same direction relative to the U.S. Dollar.

Interest Rate Risk

We have managed a portion of our variable rate debt with interest rate swap agreements, effectively converting \$250.0 million of variable rate debt to fixed rate debt. As a result, we are exposed to interest rate risk relating to our revolving debt and a portion of term debt, which are at variable rates. At August 31, 2020, 51% of our outstanding debt had fixed rates and 49% had variable rates. At August 31, 2020, a uniform 10% increase in variable interest rates would result in approximately \$1.0 million of additional annual interest expense.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
The Greenbrier Companies, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of The Greenbrier Companies, Inc. and subsidiaries (the Company) as of August 31, 2020 and 2019, the related consolidated statements of income, comprehensive income, equity, and cash flows for each of the years in the three-year period ended August 31, 2020, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of August 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended August 31, 2020, 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 August 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated October 28, 2020, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for leases as of September 1, 2019, due to the adoption of Accounting Standards Update 2016-02, *Leases*, and related amendments. Also, as discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for revenue recognition as of September 1, 2018, due to the adoption of Accounting Standards Update 2014-09, *Revenue from Contracts with Customers*, and related amendments.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated 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 consolidated 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 consolidated 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 consolidated 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 consolidated 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 consolidated 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 consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a 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 accounts or disclosures to which it relates.

Assessment of the fair value of the European Manufacturing reporting unit and Greenbrier-Astra Rail

As discussed in Notes 2 and 7 to the consolidated financial statements, the Company performs goodwill impairment testing on an annual basis, or more frequently if an event occurs or circumstances change that would indicate a potential impairment exists. The goodwill balance as of August 31, 2020 was \$130.3 million. Of this amount, \$30.4 million was allocated to the European Manufacturing reporting unit. The Company established Greenbrier-Astra Rail (GAR) in June 2017 through a transaction with Astra Holding GmbH (Astra). In connection with that transaction, the Company provided Astra an option to put its entire non-controlling interest in GAR, which comprises all operating activity of the European Manufacturing reporting unit to the Company, at an exercise price equal to the higher of fair value or a stated formula measured on the exercise date. The Company recorded this contingently redeemable non-controlling interest of \$31.1 million as of August 31, 2020 in the mezzanine section of the consolidated balance sheet. The fair value of GAR, which was determined as part of the goodwill impairment evaluation of the European Manufacturing reporting unit fair value, was used in the measurement of the contingently redeemable non-controlling interest amount at the balance sheet date.

We identified the assessment of the fair value of the European Manufacturing reporting unit and GAR as a critical audit matter. The discounted cash flow model used to calculate the fair value of the European Manufacturing reporting unit and GAR was challenging to test due to the subjectivity of certain assumptions, as the fair value determination is sensitive to possible changes in those assumptions. Specifically, changes to the following assumptions could have a significant effect on the Company's assessment of the carrying value of the goodwill and contingently redeemable non-controlling interest:

- Forecasted revenues, long-term growth rate, gross margin percentages, operating expenses, short-term net working capital changes, and the sale of specific assets; and
- The discount rate applied to the forecasted cash flows.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's process to determine the fair value of the European Manufacturing reporting unit and GAR. This included controls related to the development of the forecasted revenues, long-term growth rate, gross margin percentages, operating expenses, short-term net working capital changes, the sale of specific assets and selection of the discount rate used. We evaluated the Company's forecasted revenues, gross margin percentages, operating expenses, and short-term net working capital changes, by comparing them to the Company's historical results, external market and industry data, as well as operating results subsequent to the date of the fair value determination, but prior to audit report issuance. We evaluated the sale of specific assets by comparing to the Company's historical external transactions, as well as external market data.

In addition, we involved valuation professionals with specialized skills and knowledge, who assisted in:

- Conducting a review of the model and methodology used by the Company to determine the fair value of the European Manufacturing reporting unit and GAR;
- Evaluating the long-term growth rate by comparing it against publicly available relevant geographic market data; and
- Evaluating the discount rate used by comparing it against an independently developed range using publicly available market data.

/s/ KPMG LLP

We have served as the Company's auditor since 2011.

Portland, Oregon
October 28, 2020

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Consolidated Balance Sheets
AS OF AUGUST 31,

(In thousands)	2020	2019
Assets		
Cash and cash equivalents	\$ 833,745	\$ 329,684
Restricted cash	8,342	8,803
Accounts receivable, net	239,597	373,383
Inventories	529,529	664,693
Leased railcars for syndication	107,671	182,269
Equipment on operating leases, net	350,442	366,688
Property, plant and equipment, net	711,524	717,973
Investment in unconsolidated affiliates	72,354	91,818
Intangibles and other assets, net	190,322	125,379
Goodwill	130,308	129,947
	<u>\$ 3,173,834</u>	<u>\$ 2,990,637</u>
Liabilities and Equity		
Revolving notes	\$ 351,526	\$ 27,115
Accounts payable and accrued liabilities	463,880	568,360
Deferred income taxes	7,701	13,946
Deferred revenue	42,467	85,070
Notes payable, net	804,088	822,885
Commitments and contingencies (Notes 20 & 21)		
Contingently redeemable noncontrolling interest	31,117	31,564
Equity:		
Greenbrier		
Preferred stock - without par value; 25,000 shares authorized; none outstanding	—	—
Common stock - without par value; 50,000 shares authorized; 32,701 and 32,488 outstanding at August 31, 2020 and 2019	—	—
Additional paid-in capital	460,400	453,943
Retained earnings	885,460	867,602
Accumulated other comprehensive loss	(52,817)	(44,815)
Total equity - Greenbrier	1,293,043	1,276,730
Noncontrolling interest	180,012	164,967
Total equity	<u>1,473,055</u>	<u>1,441,697</u>
	<u>\$ 3,173,834</u>	<u>\$ 2,990,637</u>

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

Consolidated Statements of Income
YEARS ENDED AUGUST 31,

<i>(In thousands, except per share amounts)</i>	2020	2019	2018
Revenue			
Manufacturing	\$ 2,349,971	\$ 2,431,499	\$ 2,044,586
Wheels, Repair & Parts	324,670	444,502	347,023
Leasing & Services	117,548	157,590	127,855
	<u>2,792,189</u>	<u>3,033,591</u>	<u>2,519,464</u>
Cost of revenue			
Manufacturing	2,065,169	2,137,625	1,727,407
Wheels, Repair & Parts	302,189	420,890	318,330
Leasing & Services	71,700	108,590	64,672
	<u>2,439,058</u>	<u>2,667,105</u>	<u>2,110,409</u>
Margin	353,131	366,486	409,055
Selling and administrative	204,706	213,308	200,439
Net gain on disposition of equipment	(20,004)	(40,963)	(44,369)
Goodwill impairment	—	10,025	—
Earnings from operations	<u>168,429</u>	<u>184,116</u>	<u>252,985</u>
Other costs			
Interest and foreign exchange	43,619	30,912	29,368
Earnings before income tax and earnings (loss) from unconsolidated affiliates	124,810	153,204	223,617
Income tax expense	(40,184)	(41,588)	(32,893)
Earnings before earnings (loss) from unconsolidated affiliates	84,626	111,616	190,724
Earnings (loss) from unconsolidated affiliates	2,960	(5,805)	(18,661)
Net earnings	87,586	105,811	172,063
Net earnings attributable to noncontrolling interest	(38,619)	(34,735)	(20,282)
Net earnings attributable to Greenbrier	<u>\$ 48,967</u>	<u>\$ 71,076</u>	<u>\$ 151,781</u>
Basic earnings per common share	<u>\$ 1.50</u>	<u>\$ 2.18</u>	<u>\$ 4.92</u>
Diluted earnings per common share	<u>\$ 1.46</u>	<u>\$ 2.14</u>	<u>\$ 4.68</u>
Weighted average common shares:			
Basic	32,670	32,615	30,857
Diluted	33,441	33,165	32,835

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

Consolidated Statements of Comprehensive Income
YEARS ENDED AUGUST 31,

<i>(In thousands)</i>	2020	2019	2018
Net earnings	\$ 87,586	\$ 105,811	\$ 172,063
Other comprehensive income (loss)			
Translation adjustment	(5,602)	(12,725)	(16,159)
Reclassification of derivative financial instruments recognized in net earnings ¹	4,175	1,854	(415)
Unrealized loss on derivative financial instruments ²	(7,304)	(10,264)	(197)
Other (net of tax effect)	749	(351)	(335)
	<u>(7,982)</u>	<u>(21,486)</u>	<u>(17,106)</u>
Comprehensive income	79,604	84,325	154,957
Comprehensive income attributable to noncontrolling interest	(38,639)	(34,698)	(20,263)
Comprehensive income attributable to Greenbrier	<u>\$ 40,965</u>	<u>\$ 49,627</u>	<u>\$ 134,694</u>

1 Net of tax effect of \$(1.5 million), \$(0.5 million) and nil for the years ended August 31, 2020, 2019 and 2018, respectively

2 Net of tax effect of \$2.9 million, \$2.9 million and \$(0.1 million) for the years ended August 31, 2020, 2019 and 2018, respectively

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

Consolidated Statements of Equity

<i>(In thousands)</i>	Attributable to Greenbrier						Noncontrolling Interest	Total Equity	Contingently Redeemable Noncontrolling Interest
	Common Stock Shares	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Equity - Greenbrier	Total Equity			
Balance August 31, 2017	28,503	\$ 315,306	\$ 709,103	\$ (6,279)	\$ 1,018,130	\$ 160,763	\$ 1,178,893	\$ 36,148	
Net earnings	—	—	151,781	—	151,781	26,662	178,443	(6,380)	
Other comprehensive loss, net	—	—	—	(17,087)	(17,087)	(19)	(17,106)	—	
Noncontrolling interest adjustments	—	—	—	—	—	2,864	2,864	—	
Joint venture partner distribution declared	—	—	—	—	—	(62,649)	(62,649)	—	
Investment by joint venture partner	—	—	—	—	—	6,500	6,500	—	
Noncontrolling interest acquired	—	—	—	—	—	(7)	(7)	—	
Restricted stock awards (net of cancellations)	336	7,334	—	—	7,334	—	7,334	—	
Unamortized restricted stock	—	(15,058)	—	—	(15,058)	—	(15,058)	—	
Restricted stock amortization	—	16,100	—	—	16,100	—	16,100	—	
Cash dividends (\$0.96 per share)	—	—	(29,986)	—	(29,986)	—	(29,986)	—	
Conversion of 3.5% Convertible 2018 Senior Notes	3,352	118,887	—	—	118,887	—	118,887	—	
Balance August 31, 2018	32,191	\$ 442,569	\$ 830,898	\$ (23,366)	\$ 1,250,101	\$ 134,114	\$ 1,384,215	\$ 29,768	
Cumulative effect adjustment due to the adoption of Topic 606	—	—	5,461	—	5,461	—	5,461	—	
Net earnings	—	—	71,076	—	71,076	39,598	110,674	(4,863)	
Other comprehensive loss, net	—	—	—	(21,449)	(21,449)	(37)	(21,486)	—	
Noncontrolling interest adjustments	—	—	(6,659)	—	(6,659)	7,402	743	6,659	
Joint venture partner distribution declared	—	—	—	—	—	(18,025)	(18,025)	—	
Noncontrolling interest acquired	—	—	—	—	—	1,915	1,915	—	
Restricted stock awards (net of cancellations)	297	12,077	—	—	12,077	—	12,077	—	
Unamortized restricted stock	—	(16,801)	—	—	(16,801)	—	(16,801)	—	
Restricted stock amortization	—	12,321	—	—	12,321	—	12,321	—	
Cash dividends (\$1.00 per share)	—	—	(33,174)	—	(33,174)	—	(33,174)	—	
2.25% Convertible Senior Notes, due 2024 - equity component, net of tax	—	3,777	—	—	3,777	—	3,777	—	
Balance August 31, 2019	32,488	\$ 453,943	\$ 867,602	\$ (44,815)	\$ 1,276,730	\$ 164,967	\$ 1,441,697	\$ 31,564	
Cumulative effect adjustment due to the adoption of Topic 842 (See Note 2)	—	—	4,393	—	4,393	—	4,393	—	
Net earnings	—	—	48,967	—	48,967	39,066	88,033	(447)	
Other comprehensive income (loss), net	—	—	—	(8,002)	(8,002)	20	(7,982)	—	
Noncontrolling interest adjustments	—	—	—	—	—	1,436	1,436	—	
Joint venture partner distribution declared	—	—	—	—	—	(37,552)	(37,552)	—	
Noncontrolling interest acquired	—	—	—	—	—	12,075	12,075	—	
Restricted stock awards (net of cancellations)	213	2,691	—	—	2,691	—	2,691	—	
Unamortized restricted stock	—	(4,957)	—	—	(4,957)	—	(4,957)	—	
Restricted stock amortization	—	8,723	—	—	8,723	—	8,723	—	
Cash dividends (\$1.06 per share)	—	—	(35,502)	—	(35,502)	—	(35,502)	—	
Balance August 31, 2020	32,701	\$ 460,400	\$ 885,460	\$ (52,817)	\$ 1,293,043	\$ 180,012	\$ 1,473,055	\$ 31,117	

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

Consolidated Statements of Cash Flows
YEARS ENDED AUGUST 31,

<i>(In thousands)</i>	2020	2019	2018
Cash flows from operating activities:			
Net earnings	\$ 87,586	\$ 105,811	\$ 172,063
Adjustments to reconcile net earnings to net cash provided by (used in) operating activities:			
Deferred income taxes	(9,489)	(20,225)	(40,496)
Depreciation and amortization	109,850	83,731	74,356
Net gain on disposition of equipment	(20,004)	(40,963)	(44,369)
Stock based compensation expense	8,997	11,153	29,314
Accretion of debt discount	5,504	4,458	4,171
Noncontrolling interest adjustments	1,436	7,402	2,864
Goodwill impairment	—	10,025	—
Other	1,142	145	1,688
Decrease (increase) in assets:			
Accounts receivable, net	135,326	13,022	(83,551)
Inventories	166,607	(143,168)	(26,592)
Leased railcars for syndication	(12,942)	(96,110)	(54,023)
Other assets	(64,995)	6,843	34,115
Increase (decrease) in liabilities:			
Accounts payable and accrued liabilities	(108,837)	55,910	54,032
Deferred revenue	(27,920)	(19,275)	(20,231)
Net cash provided by (used in) operating activities	272,261	(21,241)	103,341
Cash flows from investing activities:			
Acquisitions, net of cash acquired	—	(361,878)	(34,874)
Proceeds from sales of assets	83,484	125,427	153,224
Capital expenditures	(66,879)	(198,233)	(176,848)
Investment in and advances to unconsolidated affiliates	(1,815)	(11,393)	(26,455)
Cash distribution from unconsolidated affiliates and other	12,693	2,096	4,661
Net cash provided by (used in) investing activities	27,483	(443,981)	(80,292)
Cash flows from financing activities:			
Net changes in revolving notes with maturities of 90 days or less	146,542	(105)	23,401
Proceeds from revolving notes with maturities longer than 90 days	176,500	—	—
Proceeds from issuance of notes payable	—	525,000	13,771
Repayments of notes payable	(30,179)	(182,971)	(22,269)
Debt issuance costs	—	(8,630)	—
Dividends	(35,173)	(33,193)	(29,914)
Cash distribution to joint venture partner	(38,969)	(16,879)	(73,033)
Investment by joint venture partner	—	—	6,500
Tax payments for net share settlement of restricted stock	(2,266)	(6,321)	(7,723)
Net cash provided by (used in) financing activities	216,455	276,901	(89,267)
Effect of exchange rate changes	(12,599)	(12,666)	(14,666)
Increase (decrease) in cash and cash equivalents and restricted cash	503,600	(200,987)	(80,884)
Cash and cash equivalents and restricted cash			
Beginning of period	338,487	539,474	620,358
End of period	<u>\$ 842,087</u>	<u>\$ 338,487</u>	<u>\$ 539,474</u>
Balance Sheet Reconciliation:			
Cash and cash equivalents	\$ 833,745	\$ 329,684	\$ 530,655
Restricted cash	8,342	8,803	8,819
Total cash and cash equivalents and restricted cash as presented above	<u>\$ 842,087</u>	<u>\$ 338,487</u>	<u>\$ 539,474</u>
Cash paid during the period for:			
Interest	\$ 31,710	\$ 18,330	\$ 18,878
Income taxes, net	\$ 59,939	\$ 62,084	\$ 66,423
Non-cash activity			
Issuance of 2.25% Convertible notes in connection with the acquisition of the manufacturing business of ARI	\$ —	\$ 50,000	\$ —
Transfer from Leased railcars for syndication and Inventories to Equipment on operating leases, net	\$ 55,626	\$ 43,845	\$ 20,945
Capital expenditures accrued in Accounts payable and accrued liabilities	\$ 4,099	\$ 19,385	\$ 13,534
Change in Accounts payable and accrued liabilities associated with dividends declared	\$ (329)	\$ 19	\$ (72)
Change in Accounts payable and accrued liabilities associated with cash distributions to joint venture partner	\$ 1,417	\$ (1,146)	\$ 14
Conversion of 3.5% Convertible notes	\$ —	\$ —	\$ 118,887

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

Notes to Consolidated Financial Statements

Note 1 — Nature of Operations

The Company operates in three reportable segments: Manufacturing; Wheels, Repair & Parts; and Leasing & Services. The segments are operationally integrated. The Manufacturing segment, which currently operates from facilities in the U.S., Mexico, Poland, Romania and Turkey, produces double-stack intermodal railcars, tank cars, conventional railcars, automotive railcar products and marine vessels. The Wheels, Repair & Parts segment performs wheel and axle servicing; railcar repair, refurbishment and maintenance; as well as production of a variety of parts for the rail industry in North America. The Leasing & Services segment owns approximately 8,300 railcars and provides management services for approximately 393,000 railcars for railroads, shippers, carriers, institutional investors and other leasing and transportation companies in North America as of August 31, 2020. Through unconsolidated affiliates the Company produces rail and industrial components and has an ownership stake in a railcar manufacturer in Brazil.

Note 2 — Summary of Significant Accounting Policies

Principles of consolidation - The financial statements include the accounts of the Company and its subsidiaries in which it has a controlling interest. All intercompany transactions and balances are eliminated upon consolidation.

Unclassified balance sheet - The balance sheets of the Company are presented in an unclassified format as a result of significant leasing activities for which the current or non-current distinction is not relevant. In addition, the activities of the Manufacturing; Wheels, Repair & Parts; and Leasing & Services segments are so intertwined that in the opinion of management, any attempt to separate the respective balance sheet categories would not be meaningful and may lead to the development of misleading conclusions by the reader.

Foreign currency translation - Certain operations outside the U.S. prepare financial statements in currencies other than the U.S. Dollar. Revenues and expenses are translated at monthly average exchange rates during the year, while assets and liabilities are translated at year-end exchange rates. Translation adjustments are accumulated as a separate component of equity in other comprehensive income (loss). The net foreign currency translation adjustment balances were \$39.8 million, \$34.2 million and \$21.5 million as of August 31, 2020, 2019 and 2018, respectively.

Cash and cash equivalents - Cash may temporarily be invested primarily in money market funds. All highly-liquid investments with a maturity of three months or less at the date of acquisition are considered cash equivalents.

Restricted cash - Restricted cash primarily relates to amounts held to support a target minimum rate of return on certain agreements and a pass through account for activity related to management services provided for certain third party customers.

Accounts receivable - Accounts receivable consists of receivables from customers and receivables from related parties (see Note 16 - Related Party Transactions) and is stated net of allowance for doubtful accounts of \$2.7 million and \$2.2 million as of August 31, 2020 and 2019, respectively.

<i>(In thousands)</i>	As of August 31,		
	2020	2019	2018
Allowance for doubtful accounts			
Balance at beginning of period	\$ 2,176	\$ 2,701	\$ 1,768
Additions, net of reversals	1,661	773	938
Usage	(1,291)	(1,311)	(54)
Currency translation effect	124	13	49
Balance at end of period	\$ 2,670	\$ 2,176	\$ 2,701

Inventories - Inventories are valued at the lower of cost or net realizable value using the first-in first-out method. Work-in-process includes material, labor and overhead. Finished goods includes completed wheels, parts and railcars not on lease or in transit.

Leased railcars for syndication - Leased railcars for syndication consist of newly-built railcars manufactured at one of the Company's facilities or railcars purchased from third parties, which have been placed on lease to a customer and which the Company intends to sell to an investor with the lease attached. These railcars are generally anticipated to be sold within six months of delivery of the last railcar in a group or six months from when the Company acquires the railcar from a third party and are typically not depreciated during that period as the Company does not believe any economic value of a railcar is lost in the first six months. In the event the railcars are not sold in the first six months, the railcars are either held in Leased railcars for syndication and are depreciated or are transferred to Equipment on operating leases and are depreciated. As of August 31, 2020, Leased railcars for syndication was \$107.7 million compared to \$182.3 million as of August 31, 2019.

Equipment on operating leases, net - Equipment on operating leases is stated net of accumulated depreciation. Depreciation to estimated salvage value is provided on the straight-line method over the estimated useful lives of up to forty years. Management periodically reviews salvage value estimates based on current scrap prices and what the Company expects to receive upon disposal.

Investment in unconsolidated affiliates - Investment in unconsolidated affiliates includes the Company's interests in certain investees which are accounted for under the equity method of accounting as the Company has determined that the investment provides the Company with the ability to exercise significant influence, but not control, over the investee. Significant influence is generally deemed to exist if the Company has an ownership interest in the voting stock of the investee of at least 20%. Several factors are considered in determining whether the equity method of accounting is appropriate including the relative ownership interests and governance rights of the joint venture partners.

As of August 31, 2020, selected investments in unconsolidated affiliates include the Company's 60% interest in Greenbrier-Maxion, 29.5% interest in Amsted-Maxion Cruzeiro (which owns 40% of Greenbrier-Maxion), 40% interest in Greenbrier Railcar Funding I LLC and 41.9% interest in Axis, LLC.

Property, plant and equipment - Property, plant and equipment is stated at cost, net of accumulated depreciation. Depreciation is provided on the straight-line method over estimated useful lives which primarily are as follows:

	Depreciable Life
Buildings and improvements	10 - 30 years
Machinery and equipment	3 - 20 years
Other	3 - 7 years

Intangible and other assets, net - Intangible assets are recorded when a portion of the purchase price of an acquisition is allocated to assets such as customer contracts and relationships and trade names. Intangible assets with finite lives are amortized using the straight line method over their estimated useful lives which are up to 20 years. Other assets include revolving note fees which are capitalized and amortized as interest expense over the life of the related borrowings.

Impairment of long-lived assets - When changes in circumstances indicate the carrying amount of certain long-lived assets may not be recoverable, the assets are evaluated for impairment. If the forecasted undiscounted future cash flows are less than the carrying amount of the assets, an impairment charge to reduce the carrying value of the assets to estimated realizable value is recognized in the current period. No impairment of long-lived assets was recorded in the years ended August 31, 2020, 2019 and 2018.

Goodwill - Goodwill is recorded when the purchase price of an acquisition exceeds the fair market value of the net assets acquired. Goodwill is not amortized and is tested for impairment at least annually and more frequently if indicators of impairment arise. The Company reviews goodwill for impairment annually using either a qualitative assessment or a quantitative goodwill impairment test. If the qualitative assessment is selected and the Company determines that fair value of each reporting unit more likely than not exceeds its carrying value, no further assessment is necessary. For reporting units where the Company performs the quantitative goodwill impairment test an impairment loss is recorded to the extent that the reporting unit's carrying amount exceeds the reporting unit's fair value. An impairment loss cannot exceed the total amount of goodwill allocated to the reporting unit. See Note 7 – Goodwill for additional information.

Warranty accruals - Warranty costs are estimated and charged to operations to cover a defined warranty period. The estimated warranty cost is based on history of warranty claims for each particular product type. For new product types without a warranty history, preliminary estimates are based on historical information for similar product types. The warranty accruals, included in Accounts payable and accrued liabilities, are reviewed periodically and updated based on warranty trends.

Income taxes - The asset and liability method is used to account for income taxes. Deferred income taxes are provided for the temporary effects of differences between assets and liabilities recognized for financial statement and income tax reporting purposes. Valuation allowances reduce deferred tax assets to an amount that will more likely than not be realized. The Company recognizes liabilities for uncertain tax positions based on whether evidence indicates that it is more likely than not that the position will be sustained on audit. The Company reevaluates these uncertain tax positions on a quarterly basis. Changes in tax law or court interpretations may result in the recognition of a tax benefit or an additional charge to the tax provision.

Deferred revenue - Cash payments received prior to meeting revenue recognition criteria are recorded in Deferred revenue. Amounts are reclassified out of Deferred revenue once the revenue recognition criteria have been met.

Noncontrolling interest and Contingently redeemable noncontrolling interest - The Company has a joint venture with Grupo Industrial Monclova, S.A. (GIMSA) that manufactures new railroad freight cars for the North American marketplace at GIMSA's existing manufacturing facility located in Frontera, Mexico. Each party owns a 50% interest in the joint venture. The financial results of this operation are consolidated for financial reporting purposes as the Company maintains a controlling interest as evidenced by the right to appoint the majority of the Board of Directors, control over accounting, financing, marketing and engineering and approval and design of products. The noncontrolling interest related to the partner's 50% interest in the joint venture is included in Noncontrolling interest in the equity section of the Company's Consolidated Balance Sheet.

Greenbrier-Astra Rail was formed in 2017 between the Company's existing European operations headquartered in Swidnica, Poland and Astra Rail, based in Arad, Romania. Greenbrier-Astra Rail is controlled by the Company with an approximate 75% interest. Astra Rail also received a put option to sell its entire noncontrolling interest to Greenbrier at an exercise price equal to the higher of fair value or a defined EBITDA multiple as measured on the exercise date. The option is exercisable 30 days prior to and up until June 1, 2022. The Company consolidates Greenbrier-Astra Rail for financial reporting purposes and includes the noncontrolling interest in the mezzanine section of the Consolidated Balance Sheet in Contingently redeemable noncontrolling interest. The carrying value of the noncontrolling interest cannot be less than the maximum redemption amount, which is the amount Greenbrier will settle the put option for if exercised. Adjustments to reconcile the carrying value to the maximum redemption amount are recorded to retained earnings.

In August 2018, Greenbrier-Astra Rail entered into an agreement to take an approximately 68% ownership stake in Rayvag, a railcar manufacturing company based in Adana, Turkey. Rayvag is controlled by the Company. The Company consolidates Rayvag for financial reporting purposes. The noncontrolling interest related to the partner's interest is included in Noncontrolling interest in the equity section of the Company's Consolidated Balance Sheet.

Net earnings attributable to noncontrolling interest on the Company's Consolidated Statement of Income represents the Company's partners' share of results from operations.

Accumulated other comprehensive loss – Accumulated other comprehensive loss, net of tax as appropriate, consisted of the following:

<i>(In thousands)</i>	Unrealized Gain (Loss) on Derivative Financial Instruments	Foreign Currency Translation Adjustment	Other	Accumulated Other Comprehensive Loss
Balance, August 31, 2019	\$ (8,841)	\$ (34,194)	\$ (1,780)	\$ (44,815)
Other comprehensive income (loss) before reclassifications	(7,304)	(5,622)	749	\$ (12,177)
Amounts reclassified from accumulated other comprehensive loss	4,175	—	—	\$ 4,175
Balance, August 31, 2020	\$ (11,970)	\$ (39,816)	\$ (1,031)	\$ (52,817)

The amounts reclassified out of Accumulated other comprehensive loss into the Consolidated Statements of Income, with the financial statement caption, were as follows:

<i>(In thousands)</i>	Year Ended August 31,		Financial Statement Caption
	2020	2019	
(Gain) loss on derivative financial instruments:			
Foreign exchange contracts	\$ 2,984	\$ 1,794	Revenue and Cost of revenue
Interest rate swap contracts	2,657	545	Interest and foreign exchange
	5,641	2,339	Total before tax
	(1,466)	(485)	Tax expense
	\$ 4,175	\$ 1,854	Net of tax

Revenue recognition – The Company measures revenue at the amounts that reflect the consideration to which it expects to be entitled in exchange for transferring control of goods and services to customers. The Company recognizes revenue either at the point in time or over the period of time that performance obligations to customers are satisfied. Payment terms vary by segment and product type and are generally due within normal commercial terms. The Company’s contracts with customers may include multiple performance obligations (e.g. railcars, maintenance, management services, etc.). For such arrangements, the Company allocates revenues to each performance obligation based on its relative standalone selling price. The Company has disaggregated revenue from contracts with customers into categories which describe the principal activities from which it generates revenues.

Manufacturing

Railcars are manufactured in accordance with contracts with customers. The Company recognizes revenue upon its customers’ acceptance of the completed railcars at a specified delivery point. From time to time, the Company enters into multi-year supply agreements. Each railcar delivery is considered a distinct performance obligation, such that the amounts that are recognized as revenue following railcar delivery are generally not subject to change.

The Company typically recognizes marine vessel manufacturing revenue over time using the cost input method, based on progress toward contract completion measured by actual costs incurred to date in relation to the estimate of total expected costs. This method best depicts the Company’s performance in completing the construction of the marine vessel for the customer and is consistent with the percentage of completion method used prior to the adoption of Topic 606.

Wheels, Repair & Parts

The Company operates a network of wheel, repair and parts shops in North America that provide complete wheelset reconditioning and railcar repair services.

Wheels revenue is recognized when wheelsets are shipped to the customer or when consumed by customers in the case of consignment arrangements. Parts revenue is recognized upon shipment of the parts to the customers.

Repair revenue is typically recognized over time using the cost input method, based on progress toward contract completion measured by actual costs incurred to date in relation to the estimate of total expected costs. This method best depicts the Company's performance in repairing the railcars for the customer. Repair services are typically completed in less than 90 days.

Leasing & Services

The Company owns a fleet of new and used cars which are leased to third-party customers. Lease revenue is recognized over the lease-term in the period in which it is earned.

Syndication transactions represent new and used railcars which have been placed on lease to a customer and which the Company intends to sell to an investor with the lease attached. At the time of such sale, revenue and cost of revenue associated with railcars that the Company has manufactured are recognized in the Manufacturing segment; while revenue and cost of revenue associated with railcars which were obtained from a third-party with the intent to resell them and subsequently sold, are recognized in Leasing & Services.

The Company enters into multi-year contracts to provide management and maintenance services to customers for which revenue is generally recognized on a straight-line basis over the contract term as a stand-ready obligation. Costs to fulfill these contracts are recognized as incurred.

Interest and foreign exchange - Interest and foreign exchange includes foreign exchange transaction gains and losses, amortization of loan fee expense, accretion of debt discounts and external interest expense.

<i>(In thousands)</i>	Years ended August 31,		
	2020	2019	2018
Interest and foreign exchange:			
Interest and other expense	\$ 42,386	\$ 32,260	\$ 30,946
Foreign exchange (gain) loss	1,233	(1,348)	(1,578)
	\$ 43,619	\$ 30,912	\$ 29,368

Forward exchange contracts - Foreign operations give rise to risks from fluctuations in foreign currency exchange rates. Forward exchange contracts with established financial institutions are used to hedge a portion of such risk. Realized and unrealized gains and losses on effective hedges are deferred in other comprehensive income (loss) and recognized in earnings concurrent with the hedged transaction or when the occurrence of the hedged transaction is no longer considered probable. Ineffectiveness is measured and any gain or loss is recognized in foreign exchange (gain) loss. Even though forward exchange contracts are entered into to mitigate the impact of currency fluctuations, certain exposure remains, which may affect operating results. In addition, there is risk for counterparty non-performance.

Interest rate instruments - Interest rate swap agreements are used to reduce the impact of changes in interest rates on certain debt. The net cash amounts paid or received under the agreements are recognized as an adjustment to interest expense.

Research and development - Research and development costs are expensed as incurred. Research and development costs incurred for new product development during the years ended August 31, 2020, 2019 and 2018 were \$5.8 million, \$5.4 million and \$6.0 million, respectively, included in Selling and administrative expenses.

Net earnings per share - Basic earnings per common share (EPS) includes restricted stock grants and restricted stock units that are considered participating securities, including some grants subject to certain performance criteria, in weighted average basic common shares outstanding when calculating EPS when the Company is in a net earnings position.

Diluted EPS is calculated using the more dilutive of two approaches. The first approach includes the dilutive effect, using the treasury stock method, associated with shares underlying the 2.875% Convertible notes, 2.25% Convertible notes, restricted stock units that are not considered participating securities and performance-based restricted stock units subject to performance criteria, for which actual levels of performance above target have been achieved. The second approach supplements the first by including the “if converted” effect of the 3.5% Convertible notes during the periods in which they were outstanding. Under the “if converted” method, debt issuance and interest costs, both net of tax, associated with the convertible notes are added back to net earnings and the share count is increased by the shares underlying the convertible notes. The 3.5% Convertible notes are included in the calculation of both approaches using the treasury stock method when the average stock price is greater than the applicable conversion price.

Stock-based compensation – The value of stock based compensation awards is amortized as compensation expense from the date of grant through the earlier of the vesting period or in some instances the recipient’s eligible retirement date. Stock based compensation expense consists of restricted stock units, restricted stock and phantom stock units awards. Stock based compensation expense for the years ended August 31, 2020, 2019 and 2018 was \$9.0 million, \$11.2 million and \$29.3 million, respectively and was recorded in Selling and administrative and Cost of revenue on the Consolidated Statements of Income.

Restricted stock units and restricted stock awards are accounted for as equity based awards (see Note 14 - Equity). Phantom stock units are accounted for as liability based awards.

Phantom Stock Units

As of August 31, 2020, there were no phantom stock units outstanding. Compensation expense related to phantom stock unit grants were recorded in Selling and administrative expense and Cost of revenue on the Company’s Consolidated Statements of Income. Compensation expense recognized related to phantom stock units for the year ended August 31, 2020 was \$0.3 million. For the year ended August 31, 2019, a \$1.2 million benefit was recognized in compensation expense for the re-measurement of phantom stock units due to a lower stock price. Compensation expense recognized related to phantom stock units for the year ended August 31, 2018 was \$12.1 million.

Management estimates - The preparation of financial statements in conformity with accounting principles generally accepted in the U.S. requires judgment on the part of management to arrive at estimates and assumptions on matters that are inherently uncertain. These estimates may affect the amount of assets, liabilities, revenues and expenses reported in the financial statements and accompanying notes and disclosure of contingent assets and liabilities within the financial statements. Estimates and assumptions are periodically evaluated and may be adjusted in future periods. Actual results could differ from those estimates.

Reclassifications - Certain immaterial reclassifications have been made to the accompanying prior year Consolidated Financial Statements to conform to the current year presentation.

Initial Adoption of Accounting Policies

Revenue Recognition

In the first quarter of 2019, the Company adopted Accounting Standard Update 2014-09, *Revenue from Contracts with Customers* and related amendments (Topic 606). This standard was issued to provide a common revenue recognition model for entities to recognize revenue in a way that depicts the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for the goods or services. The new standard also requires additional disclosures to sufficiently describe the nature, amount, timing, and uncertainty of revenue and cash flow arising from contracts with customers. As a result of adopting the new standard, the majority of the Company’s revenue recognition timing remained unchanged, while certain minor changes have occurred related to maintenance and repair services. Costs incurred while fulfilling maintenance contracts are now recognized as incurred while the related revenue continues to be recognized over time. Additionally, repair and rail retrofit service revenue, while previously recognized upon completion of an order, is now recognized as costs are incurred. This standard was adopted using a modified retrospective approach through a cumulative effect adjustment, which increased retained earnings by \$5.5 million at September 1, 2018. Other adjustments recorded to the September 1, 2018 opening balance sheet were not material. The adoption of the new revenue standard did not have a material effect on the Condensed Consolidated Balance Sheet or Statement of Income.

Lease accounting

On September 1, 2019, the Company adopted Accounting Standards Update 2016-02, *Leases* and related amendments (Topic 842). The new guidance supersedes existing guidance on accounting for leases in Topic 840 and is intended to increase the transparency and comparability of accounting for lease transactions. Topic 842 requires most leases to be recognized on the balance sheet by recording a right-of-use (ROU) asset and a lease liability. The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. For income statement purposes, the FASB retained a dual model, requiring leases to be classified as either operating or finance. Lessor accounting remains similar to the prior model, but updated to align with certain changes to the lessee model and Topic 606.

The Company adopted the provisions of the new standard using the modified retrospective adoption method, utilizing the simplified transition option which allows entities to continue to apply the legacy guidance in Topic 840 in the comparative periods presented in the year of adoption. The Company elected the “package of practical expedients,” which allows it to not reassess under the new guidance prior conclusions about lease identification, lease classification, and initial direct costs. The Company did not elect the use-of-hindsight practical expedient. The Company elected to not separate lease and non-lease components. The Company elected the short-term lease recognition exemption for all leases that qualify, which means it will not recognize ROU assets or lease liabilities for leases with lease terms of less than twelve months. Following the adoption of Topic 842, the Company will utilize both Topic 842 and Topic 606 when evaluating retained risk of services and other performance obligations in conjunction with selling railcars with a lease attached as part of the syndication model.

As a result of adoption, the Company recognized operating lease ROU assets and lease liabilities of \$40.4 and \$41.6 million, respectively, as of September 1, 2019. The Company also recognized an immaterial finance lease asset and corresponding lease liability. Additionally, the Company derecognized certain existing property, plant and equipment and deferred revenue for railcar transactions previously not qualifying as sales due to continuing involvement, that now qualify as sales under the new guidance. The gain associated with this change in accounting, was mostly offset by the recognition of a new guarantee liability. The adoption of this new standard also required the Company to eliminate deferred gains associated with certain sale-leaseback transactions. A cumulative-effect adjustment of \$4.4 million was recorded as an increase to retained earnings as of September 1, 2019.

Derivatives and Hedging

In August 2017, the FASB issued Accounting Standards Update 2017-12, *Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities* (ASU 2017-12). This update improves the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements and make certain targeted improvements to simplify the application of the hedge accounting guidance. The guidance expands the ability to qualify for hedge accounting for non-financial and financial risk components, reduces complexity in fair value hedges of interest rate risk and eliminates the requirement to separately measure and report hedge ineffectiveness, as well as eases certain hedge effectiveness assessment requirements. The Company adopted this guidance effective September 1, 2019 and it did not have a material impact on our consolidated financial statements.

Prospective Accounting Changes

Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued Accounting Standard Update 2016-13, *Financial Instruments – Credit Losses* (ASU 2016-13). This update introduces a new model for recognizing credit losses on financial instruments based on an estimate of current expected credit losses. The new guidance will apply to loans, accounts receivable, trade receivables, other financial assets measured at amortized cost, loan commitments and other off-balance sheet credit exposures. The new guidance will also apply to debt securities and other financial assets measured at fair value through other comprehensive income. The new guidance is effective for annual reporting periods beginning after December 15, 2019, with early adoption permitted. The Company plans to adopt this guidance beginning September 1, 2020 and it is not expected to have a material impact to the consolidated financial statements.

Convertible Instruments and Contracts in an Entity's Own Equity

In August 2020, the FASB issued Accounting Standard Update 2020-06, *Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*, which simplifies the accounting for certain convertible instruments, amends guidance on derivative scope exceptions for contracts in an entity's own equity, and modifies the guidance on diluted EPS calculations as a result of these changes. The guidance in this ASU can be adopted using either a full or modified retrospective approach and becomes effective for annual reporting periods beginning after December 15, 2021, with early adoption permitted. The Company is currently evaluating the impact of this standard on its consolidated financial statements and disclosures.

Note 3 – Revenue Recognition

Contract balances

Contract assets primarily consist of unbilled receivables related to marine vessel construction and railcar repair services, for which the respective contracts do not yet permit billing at the reporting date. Contract liabilities primarily consist of customer prepayments for manufacturing, maintenance, and other management-type services, for which the Company has not yet satisfied the related performance obligations.

The opening and closing balances of the Company's contract balances are as follows:

<i>(In thousands)</i>	Balance sheet classification	August 31, 2020	August 31, 2019	\$ change
Contract assets	Inventories	\$ 7,081	\$ 10,196	\$ (3,115)
Contract liabilities ¹	Deferred revenue	\$ 27,009	\$ 52,118	\$ (25,109)

¹ Contract liabilities balance includes deferred revenue within the scope of Topic 606.

For the year ended August 31, 2020, the Company recognized \$28.0 million of revenue that was included in Contract liabilities as of August 31, 2019.

Performance obligations

As of August 31, 2020, the Company has entered into contracts with customers for which revenue has not yet been recognized. The following table outlines estimated revenue related to performance obligations wholly or partially unsatisfied, that the Company anticipates will be recognized in future periods.

<i>(In millions)</i>	August 31, 2020
Revenue type:	
Manufacturing – Railcar sales	\$ 2,053.2
Manufacturing – Marine	\$ 51.3
Services	\$ 134.3
Other	\$ 129.2
Manufacturing – Railcars intended for syndication ¹	\$ 236.1

¹ Not a performance obligation as defined in Topic 606

Based on current production and delivery schedules and existing contracts, approximately \$1.0 billion of the Railcar sales amount is expected to be recognized in the next 12 months while the remaining amount is expected to be recognized through 2024. The table above excludes estimated revenue to be recognized at the Company's Brazilian manufacturing operations, as they are accounted for under the equity method.

Revenue amounts reflected in Railcars intended for syndication may be syndicated to third parties or held in the Company's fleet depending on a variety of factors.

Marine revenue is expected to be recognized through 2022 as vessel construction is completed.

Services includes management and maintenance services of which approximately 51% are expected to be performed through 2025 and the remaining amount through 2037.

Note 4 – Acquisitions

Manufacturing business of American Railcar Industries, Inc.

On July 26, 2019, the Company completed its acquisition of the manufacturing business of ARI for a purchase price of approximately \$417.2 million. In connection with the acquisition, the Company acquired two railcar manufacturing facilities in Arkansas, as well as other facilities which produce a range of railcar components and parts and create enhanced vertical integration for our manufacturing operations. The purchase price included approximately \$8.5 million for capital expenditures on railcar lining operations and other facility improvements. Included in the acquisition were equity interests in two railcar component manufacturing businesses which Greenbrier accounts for under the equity method of accounting and recognized at their respective fair value as investments in unconsolidated affiliates.

The purchase price was funded by, and consisted of, a combination of cash on hand, the proceeds of a \$300 million secured term loan, the issuance to the seller of a \$50 million senior convertible note and a payable to the seller for a working capital true-up amount (See Note 12 – Notes Payable, net).

For the year ended August 31, 2019, the operations contributed by ARI’s manufacturing business generated revenues of \$43.0 million and a loss from operations of \$1.6 million, which are reported in the Company’s consolidated financial statements as part of the Manufacturing segment.

The following table summarizes the fair value of the assets acquired and liabilities assumed at the date of acquisition:

<i>(In thousands)</i>	
Accounts receivable	\$ 27,659
Inventories	98,053
Property, plant and equipment	225,045
Investments in unconsolidated affiliates	40,314
Intangibles and other assets	36,785
Goodwill	56,659
Total assets acquired	484,515
Total liabilities assumed	67,319
Net assets acquired	\$ 417,196

The effect of measurement period adjustments to the previously reported preliminary purchase price allocation were not material.

The identified intangible assets assumed in the acquisition were recognized as follows:

<i>(In thousands)</i>	Fair value	Weighted average estimated useful life (in years)
Trademarks and patents	\$ 19,500	9
Customer and supplier relationships	16,071	7
Identified intangible assets subject to amortization	35,571	
Other identified intangible assets not subject to amortization	860	
Total identified intangible assets	\$ 36,431	

In accordance with ASC 805 *Business Combinations*, the following unaudited pro forma financial information summarizes the combined operating results of Greenbrier and ARI’s manufacturing business as if the acquisition of

ARI's manufacturing business occurred on September 1, 2017. In addition, this pro forma financial information includes acquisition-related adjustments including depreciation expense to reflect the increased fair value of property, plant and equipment, amortization expense related to identified intangible assets, interest expense on the \$50 million convertible senior note and \$300 million senior term debt issued, and the related income tax effects. This pro forma financial information is presented for informational purposes only and does not include adjustments relating to the Company's expected cost-savings and other synergies, and as such, is not indicative of the results of operations that would have been achieved if the acquisition had occurred on September 1, 2017 or of results that may occur in the future.

<i>(In thousands, except per share amounts)</i>	As of August 31,	
	2019	2018
Revenue	\$ 3,462,255	\$ 2,893,400
Net earnings attributable to Greenbrier	\$ 57,284	\$ 137,399
Basic earnings per common share	\$ 1.76	\$ 4.45
Diluted earnings per common share	\$ 1.73	\$ 4.25

GBW

On August 20, 2018, the Company entered into a dissolution agreement with Watco Companies, LLC, its previous joint venture partner, to discontinue their GBW Railcar Services railcar repair joint venture. Pursuant to the dissolution agreement, previously operated Greenbrier repair shops and associated employees returned to the Company. Additionally, the dissolution agreement provides that certain agreements entered into in connection with the original creation of GBW in 2014 were terminated as of the transaction date, including the leases of real and personal property, service agreements, and certain employment-related agreements.

As the assets received and liabilities assumed from GBW meet the definition of a business, the Company has accounted for this transaction as a business combination. The total net assets acquired were approximately \$57.6 million. Additionally, the Company removed the book value of its remaining equity method investment in, and note receivable due from, the joint venture.

The results of operations from the repair shops acquired are reported in the Company's consolidated financial statements as part of the Wheels, Repair & Parts segment.

Note 5 — Inventories

<i>(In thousands)</i>	As of August 31,	
	2020	2019
Manufacturing supplies and raw materials	\$ 263,080	\$ 387,015
Work-in-process	116,909	156,614
Finished goods	173,761	130,576
Excess and obsolete adjustment	(24,221)	(9,512)
	\$ 529,529	\$ 664,693

<i>(In thousands)</i>	As of August 31,		
	2020	2019	2018
Excess and obsolete adjustment			
Balance at beginning of period	\$ 9,512	\$ 5,614	\$ 4,136
Charge to cost of revenue	17,966	9,734	4,023
Disposition of inventory	(3,555)	(5,651)	(2,455)
Currency translation effect	298	(185)	(90)
Balance at end of period	\$ 24,221	\$ 9,512	\$ 5,614

Note 6 — Property, Plant and Equipment, net

<i>(In thousands)</i>	As of August 31,	
	2020	2019
Land and improvements	\$ 94,611	\$ 87,872
Machinery and equipment	590,992	539,952
Buildings and improvements	376,272	338,639
Construction in progress	49,717	66,744
Other	97,432	90,822
	1,209,024	1,124,029
Accumulated depreciation	(497,500)	(406,056)
	\$ 711,524	\$ 717,973

Depreciation expense was \$86.6 million, \$62.3 million and \$54.5 million for the years ended August 31, 2020, 2019 and 2018, respectively.

Note 7 — Goodwill

Changes in the carrying value of goodwill are as follows:

<i>(In thousands)</i>	Wheels, Repair & Parts				Leasing & Services	Total
	Manufacturing					
Balance August 31, 2019	\$ 86,682	\$ 43,265	\$ —	\$ —	\$ 129,947	
Translation and other adjustments	361	—	—	—	361	
Balance August 31, 2020	\$ 87,043	\$ 43,265	\$ —	\$ —	\$ 130,308	

<i>(In thousands)</i>	Goodwill
Gross goodwill balance before accumulated goodwill impairment losses and other reductions	\$ 292,858
Accumulated goodwill impairment losses	(138,234)
Accumulated other reductions	(24,316)
Balance August 31, 2020	\$ 130,308

The Company performed its annual goodwill impairment test during the third quarter. The Company determined the fair value of the reporting units while considering both the income and market approaches. Under the income approach, the Company calculates the fair value of a reporting unit based on the present value of estimated future cash flows which incorporated forecasted revenues, long-term growth rate, gross margin percentages, operating expenses, short-term net working capital changes, other cash flows and the use of discount rates. Under the market approach, the Company estimates the fair value based on observed market multiples for comparable businesses, when appropriate.

Based on the results of the Company's annual impairment test, the fair values of its reporting units exceeded their carrying values and the Company concluded that goodwill was not impaired.

Note 8 — Intangibles and Other Assets, net

Intangible assets that are determined to have finite lives are amortized over their useful lives. Intangible assets with indefinite useful lives are not amortized and are periodically evaluated for impairment.

The following table summarizes the Company's identifiable intangible and other assets balance:

<i>(In thousands)</i>	As of August 31,	
	2020	2019
Intangible assets subject to amortization:		
Customer and supplier relationships	\$ 89,722	\$ 89,722
Accumulated amortization	(56,509)	(48,850)
Other intangibles	37,798	34,031
Accumulated amortization	(10,595)	(6,908)
	60,416	67,995
Intangible assets not subject to amortization	2,474	5,450
Prepaid and other assets	22,026	15,749
Operating Lease ROU	62,389	—
Nonqualified savings plan investments	35,744	27,967
Debt issuance costs, net	3,623	4,568
Assets held for sale	3,650	3,650
	\$ 190,322	\$ 125,379

Amortization expense for the years ended August 31, 2020, 2019 and 2018 was \$11.0 million, \$6.3 million and \$5.3 million, respectively. Amortization expense for the years ending August 31, 2021, 2022, 2023, 2024 and 2025 is expected to be \$10.6 million, \$7.3 million, \$6.0 million, \$6.0 million and \$5.7 million, respectively.

Note 9 — Revolving Notes

Senior secured credit facilities, consisting of three components, aggregated to \$733.2 million as of August 31, 2020.

As of August 31, 2020, a \$600.0 million revolving line of credit, maturing June 2024, secured by substantially all the Company's assets in the U.S. not otherwise pledged as security for term loans, existed to provide working capital and interim financing of equipment, principally for the U.S. and Mexican operations. Advances under this North American credit facility bear interest at LIBOR plus 1.50% or Prime plus 0.50% depending on the type of borrowing. Available borrowings under the credit facility are generally based on defined levels of eligible inventory, receivables, property, plant and equipment and leased equipment, as well as total debt to consolidated capitalization and fixed charges coverage ratios.

As of August 31, 2020, lines of credit totaling \$68.2 million secured by certain of the Company's European assets, with variable rates that range from Warsaw Interbank Offered Rate (WIBOR) plus 1.1% to WIBOR plus 1.5% and Euro Interbank Offered Rate (EURIBOR) plus 1.1%, were available for working capital needs of the European manufacturing operations. The European lines of credit include \$16.4 million of facilities which are guaranteed by the Company. European credit facilities are regularly renewed. Currently, these European credit facilities have maturities that range from December 2020 through September 2022.

As of August 31, 2020, the Company's Mexican railcar manufacturing joint venture had two lines of credit totaling \$65.0 million. The first line of credit provides up to \$30.0 million and matures in June 2024. Advances under this facility bear interest at LIBOR plus 3.75% to 4.25%. The second line of credit provides up to \$35.0 million, of which the Company and its joint venture partner have each guaranteed 50%. Advances under this facility bear interest at LIBOR plus 3.75%. The Mexican railcar manufacturing joint venture will be able to draw amounts available under this facility through June 2021.

As of August 31, 2020, outstanding commitments under the senior secured credit facilities consisted of \$28.7 million in letters of credit and \$275.0 million in borrowings under the North American credit facility, \$46.5 million outstanding under the European credit facilities and \$30.0 million outstanding under the Mexican credit facilities. As of August 31, 2020, the Company had an aggregate of \$85.9 million available to draw down under committed credit facilities.

As of August 31, 2019, outstanding commitments under the senior secured credit facilities consisted of \$24.4 million in letters of credit under the North American credit facility and \$27.1 million outstanding under the European credit facilities.

Note 10 — Accounts Payable and Accrued Liabilities

<i>(In thousands)</i>	As of August 31,	
	2020	2019
Trade payables	\$ 148,971	\$ 302,009
Other accrued liabilities	100,168	108,939
Operating lease liabilities	64,509	—
Accrued payroll and related liabilities	105,008	106,669
Accrued warranty	45,224	46,678
Income taxes payable	—	4,065
	\$ 463,880	\$ 568,360

Note 11 — Warranty Accrual

<i>(In thousands)</i>	As of August 31,		
	2020	2019	2018
Balance at beginning of period	\$ 46,678	\$ 27,395	\$ 20,737
Charged to cost of revenue	3,984	5,014	12,323
Acquisition	—	23,895	—
Payments	(6,212)	(8,594)	(5,217)
Currency translation effect	774	(1,032)	(448)
Balance at end of period	\$ 45,224	\$ 46,678	\$ 27,395

Note 12 — Notes Payable, net

<i>(In thousands)</i>	As of August 31,	
	2020	2019
Term loans	\$ 498,858	\$ 521,544
2.875% Convertible senior notes, due 2024	275,000	275,000
2.25% Convertible senior notes, due 2024	50,000	50,000
Other notes payable	10,135	14,001
	\$ 833,993	\$ 860,545
Debt discount and issuance costs	(29,905)	(37,660)
	\$ 804,088	\$ 822,885

Term loans are primarily composed of:

- \$300.0 million of senior term debt, with a maturity date of June 2024 unless the Convertible senior notes due February 2024 are outstanding as of November 1, 2023, in which case the debt matures on that date. The debt bears a floating interest rate of LIBOR plus 1.5% with principal of \$3.75 million paid quarterly in arrears and a balloon payment of \$232.5 million due at maturity. An interest rate swap agreement was entered into on 50% of the initial balance to swap the floating interest rate of LIBOR plus 1.5% to a fixed rate of 3.19%. The principal balance as of August 31, 2020 was \$288.8 million.
- \$225.0 million of senior term debt, with a maturity date of September 2023, which is secured by a pool of leased railcars. The debt bears a floating interest rate of LIBOR plus 1.5% with principal of \$1.97 million paid quarterly in arrears and a balloon payment of \$185.6 million due at maturity. An interest rate swap agreement was entered into on approximately 50% of the initial balance to swap the floating interest rate of LIBOR plus 1.5% to a fixed rate of 4.49%. The principal balance as of August 31, 2020 was \$209.3 million.

- Other term loan with an aggregate balance of \$0.8 million as of August 31, 2020 and a maturity date of September 2022.

Convertible senior notes, due 2024, bear interest at a fixed rate of 2.875%, paid semi-annually in arrears on February 1st and August 1st. The convertible notes mature on February 1, 2024, unless earlier repurchased by the Company or converted in accordance with their terms. Upon the satisfaction of certain conditions, holders may convert at their option at any time prior to the business day immediately preceding the stated maturity date. The convertible notes are senior unsecured obligations and rank equally with other senior unsecured debt. The convertible notes are convertible into shares of the Company's common stock, at an initial conversion rate of 16.6234 shares per \$1,000 principal amount of the notes (which is equal to an initial conversion price of \$60.16 per share). The initial conversion rate and conversion price are subject to adjustment upon the occurrence of certain events, such as distributions, dividends or stock splits. There were \$33.1 million of initial debt discount and \$8.0 million of original debt issuance costs included in Notes Payable, net on the Company's Consolidated Balance Sheet. The debt discount represents the difference between the debt principal and the value of a similar debt instrument that does not have a conversion feature at issuance. The debt discount is being amortized using the effective interest rate method through February 2024 and the amortization expense is included in Interest and Foreign exchange on the Company's Consolidated Statement of Income. In accordance with ASC 470-20, the Company separately accounts for the liability component (debt principal net of debt discount) and equity component. The liability component is recognized as the fair value of a similar instrument that does not have a conversion feature at issuance. To determine the fair value of the liability component, the Company assumed an interest rate of approximately 5% which resulted in a fair value of \$241.9 million. The equity component, which is the conversion feature at issuance, is recognized as the difference between the proceeds from the issuance of the notes (\$275 million) and the fair value of the liability component (\$241.9 million). As of August 31, 2020 and 2019, the equity component was \$33.1 million which was recorded on the Company's Consolidated Balance Sheet in Additional paid-in capital, net of tax of \$12.3 million. As of August 31, 2020, the Company has reserved approximately 6.3 million shares for issuance upon conversion of these notes.

Convertible senior notes, due 2024, bear interest at a fixed rate of 2.25%, paid semi-annually in arrears on February 1st and August 1st. The convertible notes mature on July 26, 2024, unless earlier repurchased by the Company or converted in accordance with their terms. Upon the satisfaction of certain conditions, holders may convert at their option at any time prior to the business day immediately preceding the stated maturity date. The convertible notes are senior unsecured obligations and rank equally with other senior unsecured debt. The convertible notes are convertible into shares of the Company's common stock, at an initial conversion rate of 22.1910 shares per \$1,000 principal amount of the notes (which is equal to an initial conversion price of \$45.06 per share). The initial conversion rate and conversion price are subject to adjustment upon the occurrence of certain events, such as distributions, dividends or stock splits. There was \$4.9 million of initial debt discount included in Notes Payable, net on the Company's Consolidated Balance Sheet. The debt discount represents the difference between the debt principal and the value of a similar debt instrument that does not have a conversion feature at issuance. The debt discount is being amortized using the effective interest rate method through July 2024 and the amortization expense is included in Interest and Foreign exchange on the Company's Consolidated Statement of Income. In accordance with ASC 470-20, the Company separately accounts for the liability component (debt principal net of debt discount) and equity component. The liability component is recognized as the fair value of a similar instrument that does not have a conversion feature at issuance. To determine the fair value of the liability component, the Company assumed an interest rate of approximately 5% which resulted in a fair value of \$45.1 million. The equity component, which is the conversion feature at issuance, is recognized as the difference between the proceeds from the issuance of the notes (fair value of \$50 million) and the fair value of the liability component (\$45.1 million). As of August 31, 2020 and 2019, the equity component was \$4.9 million which was recorded on the Company's Consolidated Balance Sheet in Additional paid-in capital, net of tax of \$1.2 million. As of August 31, 2020, the Company has reserved approximately 1.5 million shares for issuance upon conversion of these notes.

Other notes payable includes \$10.1 million of unsecured debt with maturity dates ranging from September 2020 to August 2025.

The notes payable, along with the revolving and operating lines of credit, contain certain covenants with respect to the Company and various subsidiaries, the most restrictive of which, among other things, limit the ability to: incur additional indebtedness or guarantees; pay dividends or repurchase stock; enter into capital leases; create liens; sell assets; engage in transactions with affiliates, including joint ventures and non U.S. subsidiaries, including but not limited to loans, advances, equity investments and guarantees; enter into mergers, consolidations or sales of substantially all the Company's assets; and enter into new lines of business. The covenants also require certain maximum ratios of debt to total capitalization and minimum levels of fixed charges (interest and rent) coverage.

As of August 31, 2020 principal payments on the notes payable are expected as follows:

<i>(In thousands)</i>	
Year ending August 31,	
2021	\$ 32,375
2022	23,716
2023	23,296
2024 ⁽¹⁾	754,522
2025	84
Thereafter	-
	\$ 833,993

(1) The repayment of the \$275.0 million of Convertible senior notes due February 2024 and the \$50.0 million of Convertible senior notes due July 2024 is assumed to occur at the scheduled maturity in 2024 instead of assuming an earlier conversion by the holders.

Note 13 — Derivative Instruments

Foreign operations give rise to market risks from changes in foreign currency exchange rates. Foreign currency forward exchange contracts with established financial institutions are utilized to hedge a portion of that risk. Interest rate swap agreements are used to reduce the impact of changes in interest rates on certain debt. The Company's foreign currency forward exchange contracts and interest rate swap agreements are designated as cash flow hedges, and therefore the effective portion of unrealized gains and losses is recorded in accumulated other comprehensive income or loss.

At August 31, 2020 exchange rates, notional amounts of forward exchange contracts for the purchase of Polish Zlotys and the sale of Euros aggregated to \$48.5 million. The fair value of the contracts is included on the Consolidated Balance Sheets as Accounts payable and accrued liabilities when there is a loss, or as Accounts receivable, net when there is a gain. As the contracts mature at various dates through May 2022, any such gain or loss remaining will be recognized in manufacturing revenue or cost of revenue along with the related transactions. In the event that the underlying transaction does not occur or does not occur in the period designated at the inception of the hedge, the amount classified in accumulated other comprehensive loss would be reclassified to the results of operations in Interest and foreign exchange at the time of occurrence. At August 31, 2020 exchange rates, approximately \$0.1 million would be reclassified to revenue or cost of revenue in the next year.

At August 31, 2020, an interest rate swap agreement maturing in September 2023 had a notional amount of \$105.6 million and an interest rate swap agreement maturing June 2024 had a notional amount of \$144.4 million. The fair value of the contracts are included on the Consolidated Balance Sheets in Accounts payable and accrued liabilities when there is a loss, or in Accounts receivable, net when there is a gain. As interest expense on the underlying debt is recognized, amounts corresponding to the interest rate swap are reclassified from Accumulated other comprehensive loss and charged or credited to interest expense. At August 31, 2020 interest rates, approximately \$5.0 million would be reclassified to interest expense in the next year.

Fair Values of Derivative Instruments

(In thousands)	Asset Derivatives			Liability Derivatives		
	Balance sheet caption	August 31,		Balance sheet caption	August 31,	
		Fair Value	Fair Value		Fair Value	Fair Value
Derivatives designated as hedging instruments						
Foreign forward exchange contracts	Accounts receivable, net	\$ 560	\$ 64	Accounts payable and accrued liabilities	\$ 3	\$ 437
Interest rate swap contracts	Intangibles and other assets, net	—	—	Accounts payable and accrued liabilities	15,904	10,255
		<u>\$ 560</u>	<u>\$ 64</u>		<u>\$ 15,907</u>	<u>\$ 10,692</u>
Derivatives not designated as hedging instruments						
Foreign forward exchange contracts	Accounts receivable, net	\$ 22	\$ —	Accounts payable and accrued liabilities	\$ —	\$ 587

The Effect of Derivative Instruments on the Consolidated Statements of Income

Derivatives in cash flow hedging relationships	Location of gain (loss) recognized in income on derivative	Gain (loss) recognized in income on derivatives	
		Years ended August 31, 2020	Years ended August 31, 2019
Foreign forward exchange contract	Interest and foreign exchange	\$ 83	\$ 213

Derivatives in cash flow hedging relationships	Gain (loss) recognized in OCI on derivatives		Location of gain (loss) reclassified from accumulated OCI into income	Gain (loss) reclassified from accumulated OCI into income		Location of gain (loss) in income on derivative (amount excluded from effectiveness testing)	Gain (loss) recognized on derivative (amount excluded from effectiveness testing)	
	Years ended August 31,			Years ended August 31,			Years ended August 31,	
	2020	2019		2020	2019		2020	2019
Foreign forward exchange contracts	\$ 461	\$ (1,261)	Revenue	\$ (748)	\$ (764)	Revenue	\$ 996	\$ 1,346
Foreign forward exchange contracts	(2,238)	(421)	Cost of revenue	(2,236)	(1,030)	Cost of revenue	513	935
Interest rate swap contracts	(8,307)	(11,582)	Interest and foreign exchange	(2,657)	(545)	Interest and foreign exchange	—	(587)
	<u>\$ (10,084)</u>	<u>\$ (13,264)</u>		<u>\$ (5,641)</u>	<u>\$ (2,339)</u>		<u>\$ 1,509</u>	<u>\$ 1,694</u>

The following table presents the amounts in the Consolidated Statements of Income in which the effects of the cash flow hedges are recorded and the effects of the cash flow hedge activity on these line items for the years ended August 31, 2020, 2019 and 2018:

(In thousands)	For the Years Ended August 31,					
	2020		2019		2018	
	Total	Amount of gain (loss) on cash flow hedge activity	Total	Amount of gain (loss) on cash flow hedge activity	Total	Amount of gain (loss) on cash flow hedge activity
Revenue	\$2,792,189	\$ (748)	\$3,033,591	\$ (764)	\$2,519,464	\$ 1,145
Cost of revenue	2,439,058	(2,236)	2,667,105	(1,030)	2,110,409	(429)
Interest and foreign exchange	43,619	(2,657)	30,912	(545)	29,368	(298)

Note 14 — Equity

Stock Incentive Plan

The 2014 Amended and Restated Stock Incentive Plan was amended and restated as the 2017 Amended and Restated Stock Incentive Plan on October 24, 2017 and approved by stockholders on January 5, 2018. The stockholders also approved an increase in the total number of shares reserved for issuance by 1,100,000 shares. As a result, the maximum aggregate number of the Company's common shares authorized for issuance is 5,425,000. The 2017 Amended and Restated Stock Incentive Plan provides for the grant of incentive stock options, non-statutory stock options, restricted shares, restricted stock units and stock appreciation rights.

On August 31, 2020 there were 465,636 shares available for grant compared to 849,522 and 1,050,675 shares available for grant as of the years ended August 31, 2019 and 2018, respectively. There are no stock options or stock appreciation rights outstanding as of August 31, 2020. The Company currently grants restricted shares and restricted stock units. Restricted share grants are considered outstanding shares of common stock at the time they are issued. The holders of unvested restricted shares are entitled to voting rights and participation in dividends. Shares associated with restricted stock unit awards are not considered legally outstanding shares of common stock until vested. Restricted stock unit awards, including performance-based awards, are entitled to participate in dividends and these awards are considered participating securities and are considered outstanding for earnings per share purposes when the effect is dilutive.

During the years ended August 31, 2020, 2019 and 2018, the Company awarded restricted share and restricted stock unit grants totaling 469,825, 313,540, and 317,036 shares, respectively, which include performance-based grants. As of August 31, 2020, there were a total of 512,021 shares associated with unvested performance-based grants. The actual number of shares that will vest associated with performance-based grants will vary depending on the Company's performance. Approximately 512,021 additional shares may be granted if performance-based restricted stock unit awards vest at stretch levels of performance. These additional shares are associated with restricted stock unit awards granted during the years ended August 31, 2020, 2019 and 2018. The fair value of awards granted was \$14.5 million, \$17.4 million, and \$15.2 million for the years ended August 31, 2020, 2019 and 2018, respectively.

The value, at the date of grant, of stock awarded under restricted share grants and restricted stock unit grants is amortized as compensation expense over the lesser of the vesting period of one to three years or to the recipients eligible retirement date. Compensation expense recognized related to restricted share grants and restricted stock unit grants for the years ended August 31, 2020, 2019 and 2018 was \$8.7 million, \$12.4 million, and \$17.2 million, respectively, and was recorded in Selling and administrative and Cost of revenue on the Consolidated Statements of Income. Unamortized compensation cost related to restricted stock grants was \$11.2 million as of August 31, 2020.

Total unvested restricted share and restricted stock unit grants were 883,933 and 697,949 as of August 31, 2020 and 2019. The following table summarizes restricted share and restricted stock unit grant transactions for shares, both vested and unvested, under the 2017 Amended and Restated Stock Incentive Plan:

	Shares
Balance at August 31, 2017 ⁽¹⁾	4,091,729
Granted	317,036
Forfeited	(34,440)
Balance at August 31, 2018 ⁽¹⁾	4,374,325
Granted	313,540
Forfeited	(112,387)
Balance at August 31, 2019 ⁽¹⁾	4,575,478
Granted	469,825
Forfeited	(85,939)
Balance at August 31, 2020 ⁽¹⁾	4,959,364

(1) Balance represents cumulative grants net of forfeitures.

Share Repurchase Program

The Board of Directors has authorized the Company to repurchase shares of the Company's common stock. The share repurchase program has an expiration date of March 31, 2021 and the amount remaining for repurchase is \$100 million. Under the share repurchase program, shares of common stock may be purchased on the open market or through privately negotiated transactions from time to time. The timing and amount of purchases will be based upon market conditions, securities law limitations and other factors. The program may be modified, suspended or discontinued at any time without prior notice. The share repurchase program does not obligate the Company to acquire any specific number of shares in any period. There were no shares repurchased during the years ended August 31, 2020 and 2019.

Note 15 — Earnings Per Share

The shares used in the computation of the Company's basic and diluted earnings per common share are reconciled as follows:

<i>(In thousands)</i>	Years ended August 31,		
	2020	2019	2018
Weighted average basic common shares outstanding ⁽¹⁾	32,670	32,615	30,857
Dilutive effect of 3.5% Convertible notes ⁽²⁾	n/a	n/a	1,821
Dilutive effect of 2.875% Convertible notes ⁽³⁾	—	—	—
Dilutive effect of 2.25% Convertible notes ⁽⁴⁾	—	—	n/a
Dilutive effect of restricted stock units ⁽⁵⁾	771	550	157
Weighted average diluted common shares outstanding	33,441	33,165	32,835

- (1) Restricted stock grants and restricted stock units that are considered participating securities, including some grants subject to certain performance criteria, are included in weighted average basic common shares outstanding when the Company is in a net earnings position. No restricted stock and restricted stock units were anti-dilutive for the years ended August 31, 2020, 2019 and 2018.
- (2) The dilutive effect of the 3.5% Convertible notes was included as they were considered dilutive under the "if converted" method as further discussed below for the year ended August 31, 2018. The 3.5% Convertible notes matured on April 1, 2018.
- (3) The 2.875% Convertible notes were issued in February 2017. The dilutive effect of the 2.875% Convertible notes was excluded for the years ended August 31, 2020, 2019 and 2018 as the average stock price was less than the applicable conversion price and therefore was considered anti-dilutive.
- (4) The 2.25% Convertible notes were issued in July 2019. The dilutive effect of the 2.25% Convertible notes was excluded for the years ended August 31, 2020 and 2019 as the average stock price was less than the applicable conversion price and therefore was considered anti-dilutive.
- (5) Restricted stock units that are not considered participating securities and restricted stock units subject to performance criteria, for which actual levels of performance above target have been achieved, are included in weighted average diluted common shares outstanding when the Company is in a net earnings position.

Diluted EPS is calculated using the more dilutive of two approaches. The first approach includes the dilutive effect, using the treasury stock method, associated with shares underlying the 2.875% Convertible notes, 2.25% Convertible notes, restricted stock units that are not considered participating securities and performance based restricted stock units subject to performance criteria, for which actual levels of performance above target have been achieved. The second approach supplements the first by including the "if converted" effect of the 3.5% Convertible notes during the periods in which they were outstanding. Under the "if converted" method, debt issuance and interest costs, both net of tax, associated with the convertible notes are added back to net earnings and the share count is increased by the shares underlying the convertible notes. The 3.5% Convertible notes were included in the calculation of both approaches using the treasury stock method when the average stock price is greater than the applicable conversion price.

<i>(In thousands, except per share data)</i>	Years ended August 31,		
	2020	2019	2018
Net earnings attributable to Greenbrier	\$ 48,967	\$ 71,076	\$ 151,781
Add back:			
Interest and debt issuance costs on the 3.5% Convertible notes, net of tax	n/a	n/a	2,031
Earnings before interest and debt issuance costs on the 3.5% Convertible notes	\$ 48,967	\$ 71,076	\$ 153,812
Weighted average diluted common shares outstanding	33,441	33,165	32,835
Diluted earnings per share ⁽¹⁾	\$ 1.46	\$ 2.14	\$ 4.68

(1) Diluted earnings per share was calculated as follows:

$$\frac{\text{Earnings before interest and debt issuance costs on the 3.5\% Convertible notes}}{\text{Weighted average diluted common shares outstanding}}$$

Note 16 — Related Party Transactions

In June 2017, the Company purchased a 40% interest in the common equity of an entity that buys and sells railcar assets that are leased to third parties. The railcars sold to this leasing warehouse are principally built by Greenbrier. The Company accounts for this leasing warehouse investment under the equity method of accounting. As of August 31, 2020, the carrying amount of the investment was \$3.6 million which is classified in Investment in unconsolidated affiliates in the Consolidated Balance Sheet. Upon sale of railcars to this entity from Greenbrier, 60% of the related revenue and margin is recognized and 40% is deferred until the railcars are ultimately sold by the entity. The Company recognized \$4.7 million, \$18.2 million and \$15.9 million in revenue associated with railcars sold into the leasing warehouse during the years ended August 31, 2020, 2019 and 2018, respectively. The Company also recognized \$5.6 million and \$47.8 million with railcars sold out of the leasing warehouse during the years ended August 31, 2019 and 2018, respectively. The Company also provides administrative and remarketing services to this entity and earns management fees for these services which were immaterial for each of the years ended August 31, 2020, 2019 and 2018.

The Company has a 41.9% interest in Axis, a joint venture that manufactures and sells axles to its joint venture partners for use and distribution both domestically and internationally in traditional freight railcar markets and other railcar markets. The Company obtained its ownership interest in Axis as part of the acquisition of the manufacturing business of ARI on July 26, 2019. The Company purchased \$12.7 million and \$1.6 million of railcar components from Axis during the years ended August 31, 2020 and August 31, 2019, respectively.

In November 2019, the Company increased its ownership interest in Amsted-Maxion Cruzeiro from 24.5% to 29.5%. This transaction included a conversion to equity of \$4.8 million from a note receivable, including accrued interest, and a re-payment to the Company of \$1.5 million which was used to acquire the additional 5% ownership interest. As of August 31, 2020, the Company had a remaining \$4.5 million note receivable due from Amsted-Maxion Cruzeiro, its unconsolidated Brazilian castings and components manufacturer and a \$3.8 million note receivable from Greenbrier-Maxion, its unconsolidated Brazilian railcar manufacturer. These note receivables are included on the Consolidated Balance Sheet in Accounts receivable, net.

In May 2020, the Company and its manufacturing partner Grupo Industrial Monclova, S.A. (GIMSA) amended its joint venture agreement for its joint ventures in Monclova, Mexico. In addition to certain temporary changes to the existing fee arrangements, the joint ventures also paid dividends of \$22.5 million to each of the joint venture partners during the year ended August 31, 2020.

Mr. Furman is the owner of a private aircraft managed by a private independent management company. From time to time, the Company's business requires charter use of privately-owned aircraft. In such instances, it is possible that charters may be placed on Mr. Furman's aircraft. The Company placed charters on Mr. Furman's aircraft aggregating \$0.3 million, \$1.5 million and \$0.5 million for each of the years ended August 31, 2020, 2019 and 2018, respectively.

In July 2014, the Company and Watco Companies LLC completed the formation of GBW, an unconsolidated 50/50 joint venture. The Company accounted for its interest in GBW under the equity method of accounting. On August 20, 2018 the Company entered into an agreement with its joint venture partner to discontinue the GBW railcar repair joint venture. The Company leased real and personal property to GBW with lease revenue totaling approximately \$5 million for the year ended August 31, 2018. The Company sold wheel sets and components to GBW which totaled \$16.5 million for the year ended August 31, 2018. GBW provided services to the Company which totaled \$0.4 million for the year ended August 31, 2018.

Note 17 — Income Taxes

Components of income tax expense were as follows:

<i>(In thousands)</i>	Years ended August 31,		
	2020	2019	2018
Current			
Federal	\$ 21,040	\$ 18,894	\$ 28,357
State	785	4,775	3,244
Foreign	25,346	37,391	38,628
	47,171	61,060	70,229
Deferred			
Federal	(8,294)	(8,559)	(33,459)
State	688	(2,542)	(344)
Foreign	495	(8,433)	(3,690)
	(7,111)	(19,534)	(37,493)
Change in valuation allowance	124	62	157
Income tax expense	\$ 40,184	\$ 41,588	\$ 32,893

Income tax expense was computed using different statutory rates for the fiscal years presented. Due to the 2017 Tax Cuts and Jobs Act (Tax Act) enacted on December 22, 2017, the federal statutory rate was reduced from 35% to 21% effective January 1, 2018. The U.S. federal corporate statutory rates used are 21%, 21% and 25.7% for fiscal years 2020, 2019 and 2018, respectively.

The Company recognized the income tax effects of the Tax Act in its financial statements in accordance with Staff Accounting Bulletin No. 118 (SAB 118), which provided guidance for the application of ASC 740, *Income Taxes* (ASC 740), in the reporting period in which the Tax Act was signed into law. During the year ended August 31, 2018, deferred income taxes were remeasured as a result of the new statutory rate resulting in a tax benefit of \$33.6 million. This benefit was partially offset by a one-time accrual of \$8.9 million of tax expense related to the transition tax on foreign earnings not previously subject to U.S. taxation. During the year ended August 31, 2019 the Company finalized all accounting for the specific income tax effects of the Tax Act for which the accounting under ASC 740 was previously incomplete.

For the year ended August 31, 2020, the Company has estimated the impact of the Tax Act which are effective for tax years 2018 and forward. The most significant item, impacting the Company in 2019, is the global intangible low-taxed income (GILTI) tax. GILTI is not estimated to be material in the current year due to the high-tax exception. The Company has made an accounting policy election to treat the GILTI tax as a current period expense and has included it in the financial statements.

In response to the COVID-19 pandemic, the CARES Act was signed into law in March 2020. The CARES Act lifts certain deduction limitations originally imposed by the Tax Act. Corporate taxpayers may carryback net operating losses (“NOLs”) originating in 2018 through 2020 for up to five years, which was not previously allowed under the Tax Act. The CARES Act also eliminates the existing limitation on taxable income of 80% by allowing corporate entities to fully utilize NOL carryforwards to offset taxable income in 2018, 2019, or 2020. Taxpayers may generally deduct interest up to the sum of 50% of adjusted taxable income, plus business interest income, subject to the existing 30% limit under the Tax Act, for 2019 and 2020. The CARES Act allows taxpayers with alternative minimum tax credits to claim a refund in 2020 for the entire amount of the credits instead of recovering the credits through refunds over a period of years, as originally enacted by the Tax Act.

In addition, the CARES Act raises the corporate charitable deduction limit to 25% of taxable income and makes qualified improvement property generally eligible for 15-year cost-recovery and 100% bonus depreciation. With the enactment of the CARES Act, we benefited from additional interest and depreciation deductions with the overall benefit being immaterial.

The reconciliation between effective and statutory tax rates on operations is as follows:

	Years ended August 31,		
	2020	2019	2018
Federal statutory rate	21.0%	21.0%	25.7%
State income taxes, net of federal benefit	2.0	1.3	0.8
Foreign operations, excluding transition tax	4.5	5.8	1.8
Transition tax on foreign earnings	—	0.5	3.1
Remeasurement of domestic deferred taxes	—	—	(15.0)
Change in valuation allowance	0.1	—	0.1
Noncontrolling interest in flow-through entity	(6.1)	(5.7)	(2.2)
Permanent differences	8.9	3.6	2.6
Other	1.8	0.6	(2.2)
Effective tax rate	32.2%	27.1%	14.7%

Earnings before income tax and earnings from unconsolidated affiliates for the years ended August 31, 2020, 2019 and 2018 were \$71.2 million, \$75.0 million and \$110.8 million, respectively, for our domestic U.S. operations and \$53.6 million, \$78.2 million and \$112.8 million, respectively for our foreign operations.

The tax effects of temporary differences that give rise to significant portions of deferred tax assets and deferred tax liabilities were as follows:

<i>(In thousands)</i>	As of August 31,	
	2020	2019
Deferred tax assets:		
Accrued payroll and related liabilities	\$ 20,702	\$ 21,978
Deferred revenue	7,943	8,296
Inventories and other	16,974	15,392
Maintenance and warranty accruals	3,044	3,596
Net operating losses	12,247	10,817
Investment, asset tax credits and other	1,576	1,560
	62,486	61,639
Valuation allowance	(9,195)	(8,327)
Deferred tax liabilities:		
Fixed assets	(53,180)	(56,760)
Original issue discount	(4,992)	(6,253)
Intangibles	(2,820)	(2,813)
Other	—	(1,432)
	(60,992)	(67,258)
Net deferred tax liability	\$ (7,701)	\$ (13,946)

As of August 31, 2020 the Company had \$1.2 million of state credit carryforwards that will begin to expire in fiscal 2021, \$28.8 million of foreign NOL carryforwards that will begin to expire in fiscal 2021 and \$25.9 million of foreign NOL carryforwards that do not expire. The Company has placed a valuation allowance of \$9.2 million against the deferred tax assets for which no benefit is anticipated, including those for loss and credit carryforwards not likely to be used before their expiration dates or where the possibility of utilization is remote. The net increase in the total valuation allowance on deferred taxes for which no benefit is anticipated was approximately \$0.9 million for the year ended August 31, 2020.

Prior to 2018 no provision had been made for U.S. income taxes on the Company's cumulative undistributed earnings from foreign subsidiaries. During fiscal 2018 these earnings were subject to the one-time transition tax on the deemed repatriation of undistributed foreign earnings. Notwithstanding this deemed inclusion in taxable income, any actual repatriation would be accompanied by foreign withholding taxes. The Company does not intend to repatriate these foreign earnings and continues to assert that its foreign earnings are indefinitely reinvested.

The following is a tabular reconciliation of the total amounts of unrecognized tax benefits:

<i>(In thousands)</i>	Years ended August 31,		
	2020	2019	2018
Unrecognized Tax Benefit – Opening Balance	\$ 1,605	\$ 1,608	\$ 1,820
Gross increases – tax positions in prior period	4,034	—	237
Gross decreases – tax positions in prior period	—	(3)	(449)
Settlements	—	—	—
Lapse of statute of limitations	(137)	—	—
Unrecognized Tax Benefit – Ending Balance	\$ 5,502	\$ 1,605	\$ 1,608

The Company is subject to taxation in the U.S. and in various states and foreign jurisdictions. The Company is effectively no longer subject to U.S. Federal examination for fiscal years ending before 2017, to state and local examinations before 2016, or to foreign examinations before 2015.

Unrecognized tax benefits, excluding interest, at August 31, 2020 were \$5.5 million, which if recognized, would affect the effective tax rate. The unrecognized tax benefits at August 31, 2019 were \$1.6 million. Accrued interest on unrecognized tax benefits as of August 31, 2020 was \$1.1 million and as of August 31, 2019 was \$0.6 million. The Company recorded annual interest expense of approximately \$0.4 million for changes in the unrecognized tax benefits during each of the years ended August 31, 2020 and 2019. The Company has not accrued any penalties on the unrecognized tax benefits. Interest and penalties related to income taxes are not classified as a component of income tax expense. Benefits from the realization of unrecognized tax benefits for deductible differences attributable to ordinary operations will be recognized as a reduction of income tax expense. The Company does not anticipate a significant decrease in the reserves for uncertain tax positions during the next twelve months.

Note 18 — Segment Information

The Company operates in three reportable segments: Manufacturing; Wheels, Repair & Parts; and Leasing & Services. Prior to August 20, 2018, the Company operated in four reportable segments: Manufacturing; Wheels & Parts; Leasing & Services; and GBW Joint Venture. On August 20, 2018 the Company entered into an agreement with its joint venture partner to discontinue the GBW railcar repair joint venture, which resulted in 12 repair shops returned to the Company. Beginning on August 20, 2018, the GBW Joint Venture was no longer considered a reportable segment.

The accounting policies of the segments are the same as those described in the summary of significant accounting policies. Performance is evaluated based on Earnings from operations. Corporate includes selling and administrative costs not directly related to goods and services and certain costs that are intertwined among segments due to our integrated business model. The Company does not allocate Interest and foreign exchange or Income tax expense for either external or internal reporting purposes. Intersegment sales and transfers are valued as if the sales or transfers were to third parties. Related revenue and margin are eliminated in consolidation and therefore are not included in consolidated results in the Company's Consolidated Financial Statements.

The information in the following table is derived directly from the segments' internal financial reports used for corporate management purposes. The results of operations for the GBW Joint Venture are not reflected in the tables below as the investment was accounted for under the equity method of accounting.

For the year ended August 31, 2020:

<i>(In thousands)</i>	Revenue			Earnings (loss) from operations		
	External	Intersegment	Total	External	Intersegment	Total
Manufacturing	\$2,349,971	\$ 2,952	\$2,352,923	\$ 197,388	\$ 54	\$ 197,442
Wheels, Repair & Parts	324,670	12,606	337,276	9,032	(900)	8,132
Leasing & Services	117,548	42,728	160,276	40,927	40,655	81,582
Eliminations	—	(58,286)	(58,286)	—	(39,809)	(39,809)
Corporate	—	—	—	(78,918)	—	(78,918)
	\$2,792,189	\$ —	\$2,792,189	\$ 168,429	\$ —	\$ 168,429

For the year ended August 31, 2019:

<i>(In thousands)</i>	Revenue			Earnings (loss) from operations		
	External	Intersegment	Total	External	Intersegment	Total
Manufacturing	\$2,431,499	\$ 97,086	\$2,528,585	\$ 217,583	\$ 6,370	\$ 223,953
Wheels, Repair & Parts	444,502	48,266	492,768	(2,941)	902	(2,039)
Leasing & Services	157,590	28,240	185,830	64,763	25,527	90,290
Eliminations	—	(173,592)	(173,592)	—	(32,799)	(32,799)
Corporate	—	—	—	(95,289)	—	(95,289)
	\$3,033,591	\$ —	\$3,033,591	\$ 184,116	\$ —	\$ 184,116

For the year ended August 31, 2018:

<i>(In thousands)</i>	Revenue			Earnings (loss) from operations		
	External	Intersegment	Total	External	Intersegment	Total
Manufacturing	\$2,044,586	\$ 118,157	\$2,162,743	\$ 240,901	\$ 17,721	\$ 258,622
Wheels, Repair & Parts	347,023	41,494	388,517	16,731	2,748	19,479
Leasing & Services	127,855	11,847	139,702	88,481	10,296	98,777
Eliminations	—	(171,498)	(171,498)	—	(30,765)	(30,765)
Corporate	—	—	—	(93,128)	—	(93,128)
	\$2,519,464	\$ —	\$2,519,464	\$ 252,985	\$ —	\$ 252,985

<i>(In thousands)</i>	Years ended August 31,		
	2020	2019	2018
Assets:			
Manufacturing	\$ 1,301,715	\$ 1,606,571	\$ 1,020,757
Wheels, Repair & Parts	271,862	306,725	306,756
Leasing & Services	739,025	708,799	578,818
Unallocated, including cash	861,232	368,542	559,133
	<u>\$ 3,173,834</u>	<u>\$ 2,990,637</u>	<u>\$ 2,465,464</u>
Depreciation and amortization:			
Manufacturing	\$ 78,010	\$ 49,240	\$ 44,225
Wheels, Repair & Parts	12,567	13,024	10,771
Leasing & Services	19,273	21,467	19,360
	<u>\$ 109,850</u>	<u>\$ 83,731</u>	<u>\$ 74,356</u>
Capital expenditures:			
Manufacturing	\$ 48,201	\$ 85,155	\$ 59,707
Wheels, Repair & Parts	11,662	13,291	5,204
Leasing & Services	7,016	99,787	111,937
	<u>\$ 66,879</u>	<u>\$ 198,233</u>	<u>\$ 176,848</u>

The following table summarizes selected geographic information.

<i>(In thousands)</i>	Years ended August 31,		
	2020	2019	2018
Revenue ⁽¹⁾:			
U.S.	\$ 2,018,654	\$ 2,115,934	\$ 1,840,877
Foreign	773,535	917,657	678,587
	<u>\$ 2,792,189</u>	<u>\$ 3,033,591</u>	<u>\$ 2,519,464</u>
Assets:			
U.S.	\$ 2,359,332	\$ 2,110,864	\$ 1,677,144
Mexico	590,790	628,511	517,543
Europe	223,712	251,262	270,777
	<u>\$ 3,173,834</u>	<u>\$ 2,990,637</u>	<u>\$ 2,465,464</u>

(1) Revenue is presented on the basis of geographic location of customers.

Reconciliation of Earnings from operations to Earnings before income tax and earnings (loss) from unconsolidated affiliates:

<i>(In thousands)</i>	Years ended August 31,		
	2020	2019	2018
Earnings from operations	\$ 168,429	\$ 184,116	\$ 252,985
Interest and foreign exchange	43,619	30,912	29,368
Earnings before income tax and earnings (loss) from unconsolidated affiliates	<u>\$ 124,810</u>	<u>\$ 153,204</u>	<u>\$ 223,617</u>

Note 19 — Customer Concentration

Customer concentration is defined as a single customer that accounts for more than 10% of total revenues or accounts receivable. In 2020, revenue from two customers represented 15% and 11% of total revenue. In 2019, revenue from one customer represented 26% of total revenue. In 2018, revenue from two customers represented 20% and 11% of total revenue. No other customers accounted for more than 10% of total revenues for the years ended August 31, 2020, 2019, or 2018. No customer had a balance that individually equaled or exceeded 10% of accounts receivable at August 31, 2020. One customer had a balance that individually equaled or exceeded 10% of accounts receivable and represented 14% of the consolidated accounts receivable balance at August 31, 2019.

Note 20 — Lease Commitments

Lessor

Equipment on operating leases is reported net of accumulated depreciation of \$33.4 million, \$44.2 million, and \$64.9 million as of August 31, 2020, 2019, and 2018 respectively. Depreciation expense was \$11.6 million, \$13.3 million and \$11.2 million as of August 31, 2020, 2019, and 2018 respectively. In addition, certain railcar equipment leased-in by the Company on operating leases is subleased to customers under non-cancelable operating leases with lease terms ranging from one to twelve years. Operating lease rental revenues included in the Company's Consolidated Statements of Income as of August 31, 2020, 2019, and 2018 was \$38.7 million, \$44.7 million and \$41.4 million respectively, which included \$11.2 million, \$14.0 million, and \$12.8 million respectively, of revenue as a result of daily, monthly or car hire utilization arrangements.

Aggregate minimum future amounts receivable under all non-cancelable operating leases and subleases at August 31, 2020, will mature as follows:

<i>(In thousands)</i>	
2021	\$ 28,179
2022	24,407
2023	19,580
2024	16,659
2025	9,704
Thereafter	14,556
	\$ 113,085

Lessee

The Company leases railcars, real estate, and certain equipment under operating and, to a lesser extent, finance lease arrangements. As of and for the twelve months ended August 31, 2020, finance leases were not a material component of the Company's lease portfolio. The Company's real estate and equipment leases have remaining lease terms ranging from less than one year to 78 years, with some including options to extend up to 15 years. The Company recognizes a lease liability and corresponding right-of-use (ROU) asset based on the present value of lease payments. To determine the present value of lease payments, as most of its leases do not provide a readily determinable implicit rate, the Company's incremental borrowing rate is used to discount the lease payments based on information available at lease commencement date. The Company gives consideration to its recent debt issuances as well as publicly available data for instruments with similar characteristics when estimating its incremental borrowing rate.

The components of operating lease costs were as follows:

<i>(In thousands)</i>	Twelve months ended August 31, 2020
Operating lease expense	\$ 15,256
Short-term lease expense	8,313
Total	\$ 23,569

In accordance with Topic 840, lease expense was \$19.9 million and \$16.2 million for August 31, 2019 and 2018 respectively.

Aggregate minimum future amounts payable under operating leases having initial or remaining non-cancelable terms at August 31, 2020 will mature as follows:

<i>(In thousands)</i>	
2021	\$ 13,874
2022	12,412
2023	12,036
2024	10,768
2025	6,304
Thereafter	17,481
Total lease payments	\$ 72,875
Less: Imputed interest	(8,366)
Total lease obligations	\$ 64,509

Prior to our adoption of Topic 842, the future minimum amounts payable under non-cancelable operating leases as of August 31, 2019 was as follows:

<i>(In thousands)</i>	
2020	\$ 14,299
2021	8,746
2022	5,727
2023	5,157
2024	3,522
Thereafter	10,197
Total lease obligations	\$ 47,648

The table below presents additional information related to the Company's leases:

Weighted average remaining lease term	
Operating leases	11.4 years
Weighted average discount rate	
Operating leases	3.2%

Supplemental cash flow information related to leases were as follows:

<i>(In thousands)</i>	Twelve months ended August 31, 2020
Cash paid for amounts included in the measurement of lease liabilities	
Operating cash flows from operating leases	\$ 15,163
ROU assets obtained in exchange for new operating lease liabilities	\$ 36,311

Note 21 — Commitments and Contingencies

Portland Harbor Superfund Site

The Company's Portland, Oregon manufacturing facility (the Portland Property) is located adjacent to the Willamette River. In December 2000, the U.S. Environmental Protection Agency (EPA) classified portions of the Willamette River bed known as the Portland Harbor, including the portion fronting the Company's manufacturing facility, as a federal "National Priority List" or "Superfund" site due to sediment contamination (the Portland Harbor Site). The Company and more than 140 other parties have received a "General Notice" of potential liability from the EPA relating to the Portland Harbor Site. The letter advised the Company that it may be liable for the costs of investigation and remediation (which liability may be joint and several with other potentially responsible parties) as well as for natural resource damages resulting from releases of hazardous substances to the site. Ten private and public entities, including the Company (the Lower Willamette Group or LWG), signed an Administrative Order on Consent (AOC) to perform a remedial investigation/feasibility study (RI/FS) of the Portland Harbor Site under EPA oversight, and several additional entities did not sign such consent, but nevertheless contributed financially to the effort. The EPA-mandated RI/FS was produced by the LWG and cost over \$110 million during a 17-year period. The Company bore a percentage of the total costs incurred by the LWG in connection with the investigation. The Company's aggregate expenditure during the 17-year period was not material. Some or all of any such outlay may be recoverable from other responsible parties. The EPA issued its Record of Decision (ROD) for the Portland Harbor Site on January 6, 2017 and accordingly on October 26, 2017, the AOC was terminated.

Separate from the process described above, which focused on the type of remediation to be performed at the Portland Harbor Site and the schedule for such remediation, 83 parties, including the State of Oregon and the federal government, entered into a non-judicial mediation process to try to allocate costs associated with remediation of the Portland Harbor Site. Approximately 110 additional parties signed tolling agreements related to such allocations. On April 23, 2009, the Company and the other AOC signatories filed suit against 69 other parties due to a possible limitations period for some such claims; *Arkema Inc. et al v. A & C Foundry Products, Inc. et al*, U.S. District Court, District of Oregon, Case #3:09-cv-453-PK. All but 12 of these parties elected to sign tolling agreements and be dismissed without prejudice, and the case has been stayed by the court until January 14, 2022.

The EPA's January 6, 2017 ROD identifies a clean-up remedy that the EPA estimates will take 13 years of active remediation, followed by 30 years of monitoring with an estimated undiscounted cost of \$1.7 billion. The EPA typically expects its cost estimates to be accurate within a range of -30% to +50%, but this ROD states that changes in costs are likely to occur as a result of new data collected over a 2-year period prior to final remedy design. The ROD identifies 13 Sediment Decision Units. One of the units, RM9W, includes the nearshore area of the river sediments offshore of the Portland Property as well as upstream and downstream of the facility. It also includes a portion of the Company's riverbank. The ROD does not break down total remediation costs by Sediment Decision Unit. The EPA's ROD concluded that more data was needed to better define clean-up scope and cost. On December 8, 2017, the EPA announced that Portland Harbor is one of 21 Superfund sites targeted for greater attention. On December 19, 2017, the EPA announced that it had entered a new AOC with a group of four potentially responsible parties to conduct additional sampling during 2018 and 2019 to provide more certainty about clean-up costs and aid the mediation process to allocate those costs. The parties to the mediation, including the Company, agreed to help fund the additional sampling, which is now complete. The EPA requested that potentially responsible parties enter AOCs during 2019 agreeing to conduct remedial design studies. Some parties have signed AOCs, including one party with respect to RM9W which includes the area offshore of the Company's manufacturing facility. The Company has not signed an AOC in connection with remedial design, but will potentially be directly or indirectly responsible for conducting or funding a portion of such RM9W remedial design. The allocation process is continuing in parallel with the process to define the remedial design.

The ROD does not address responsibility for the costs of clean-up, nor does it allocate such costs among the potentially responsible parties. Responsibility for funding and implementing the EPA's selected cleanup remedy will be determined at an unspecified later date. Based on the investigation to date, the Company believes that it did not contribute in any material way to contamination in the river sediments or the damage of natural resources in the Portland Harbor Site and that the damage in the area of the Portland Harbor Site adjacent to its property precedes the Company's ownership of the Portland Property. Because these environmental investigations are still underway, including the collection of new pre-remedial design sampling data by EPA, sufficient information is currently not available to determine the Company's liability, if any, for the cost of any required remediation or restoration of the Portland Harbor Site or to estimate a range of potential loss. Based on the results of the pending investigations and future assessments of natural resource damages, the Company may be required to incur costs associated with additional phases of investigation or remedial action, and may be liable for damages to natural resources. In addition, the Company may be required to perform periodic maintenance dredging in order to continue to launch vessels from its launch ways in Portland, Oregon, on the Willamette River, and the river's classification as a Superfund site could result in some limitations on future dredging and launch activities. Any of these matters could adversely affect the Company's business and Consolidated Financial Statements, or the value of the Portland Property.

On January 30, 2017 the Confederated Tribes and Bands of Yakama Nation sued 33 parties including the Company as well as the United States and the State of Oregon for costs it incurred in assessing alleged natural resource damages to the Columbia River from contaminants deposited in Portland Harbor. *Confederated Tribes and Bands of the Yakama Nation v. Air Liquide America Corp., et al.*, United States Court for the District of Oregon Case No. 3:17-CV-00164-SB. The complaint does not specify the amount of damages the plaintiff will seek. The case has been stayed until January 14, 2022.

Oregon Department of Environmental Quality (DEQ) Regulation of Portland Manufacturing Operations

The Company entered into a Voluntary Cleanup Agreement with the Oregon Department of Environmental Quality (DEQ) in which the Company agreed to conduct an investigation of whether, and to what extent, past or present operations at the Portland Property may have released hazardous substances into the environment. The Company has also signed an Order on Consent with the DEQ to finalize the investigation of potential onsite sources of contamination that may have a release pathway to the Willamette River. Interim precautionary measures are also required in the order and the Company is discussing with the DEQ potential remedial actions which may be required. The Company's aggregate expenditure has not been material, however it could incur significant expenses for remediation. Some or all of any such outlay may be recoverable from other responsible parties.

Other Litigation, Commitments and Contingencies

In connection with the acquisition of the manufacturing business of ARI, the Company agreed to assume potential legacy liabilities (known and unknown) related to railcars manufactured by ARI. Among these potential liabilities are certain retrofit and repair obligations arising from regulatory actions by the Federal Railroad Administration and the Association of American Railroads. In some cases, the seller shares with the Company the costs of these retrofit and repair obligations. The Company currently is not able to determine if any of these liabilities will have a material adverse impact on the Company's results of operations.

From time to time, Greenbrier is involved as a defendant in litigation in the ordinary course of business, the outcomes of which cannot be predicted with certainty. While the ultimate outcome of such legal proceedings cannot be determined at this time, the Company believes that the resolution of pending litigation will not have a material adverse effect on the Company's Consolidated Financial Statements.

As of August 31, 2020, the Company had outstanding letters of credit aggregating to \$28.7 million associated with performance guarantees, facility leases and workers compensation insurance.

As of August 31, 2020, the Company had a \$4.5 million note receivable from Amsted-Maxion Cruzeiro, its unconsolidated Brazilian castings and components manufacturer and a \$3.8 million note receivable from Greenbrier-Maxion, its unconsolidated Brazilian railcar manufacturer. These note receivables are included on the Consolidated Balance Sheet in Accounts receivable, net. In the future, the Company may make loans to or provide guarantees for Amsted-Maxion Cruzeiro or Greenbrier-Maxion.

Note 22 – Fair Value Measures

Certain assets and liabilities are reported at fair value on either a recurring or nonrecurring basis. Fair value, for this disclosure, is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants, under a three-tier fair value hierarchy which prioritizes the inputs used in measuring a fair value as follows:

Level 1 - observable inputs such as unadjusted quoted prices in active markets for identical instruments;

Level 2 - inputs, other than the quoted market prices in active markets for similar instruments, which are observable, either directly or indirectly; and

Level 3 - unobservable inputs for which there is little or no market data available, which require the reporting entity to develop its own assumptions.

Assets and liabilities measured at fair value on a recurring basis as of August 31, 2020 are:

<i>(In thousands)</i>	Total	Level 1	Level 2 ⁽¹⁾	Level 3
Assets:				
Derivative financial instruments	\$ 582	\$ —	\$ 582	\$ —
Nonqualified savings plan investments	35,744	35,744	—	—
Cash equivalents	203,509	203,509	—	—
	<u>\$ 239,835</u>	<u>\$ 239,253</u>	<u>\$ 582</u>	<u>\$ —</u>
Liabilities:				
Derivative financial instruments	\$ 15,907	\$ —	\$ 15,907	\$ —

(1) Level 2 assets include derivative financial instruments which are valued based on significant observable inputs. See Note 13 - Derivative Instruments for further discussion.

Assets and liabilities measured at fair value on a recurring basis as of August 31, 2019 are:

<i>(In thousands)</i>	Total	Level 1	Level 2 ⁽¹⁾	Level 3
Assets:				
Derivative financial instruments	\$ 64	\$ —	\$ 64	\$ —
Nonqualified savings plan investments	27,967	27,967	—	—
Cash equivalents	68,100	68,100	—	—
	<u>\$ 96,131</u>	<u>\$ 96,067</u>	<u>\$ 64</u>	<u>\$ —</u>
Liabilities:				
Derivative financial instruments	\$ 11,279	\$ —	\$ 11,279	\$ —

Note 23 – Fair Value of Financial Instruments

The estimated fair values of financial instruments and the methods and assumptions used to estimate such fair values are as follows:

<i>(In thousands)</i>	Carrying Amount ¹	Estimated Fair Value (Level 2)
Notes payable as of August 31, 2020	\$ 832,126	\$ 802,324
Notes payable as of August 31, 2019	\$ 860,545	\$ 838,728

¹ Carrying amount disclosed in this table excludes debt discount and debt issuance costs.

The carrying amount of cash and cash equivalents, accounts and notes receivable, revolving notes and accounts payable and accrued liabilities is a reasonable estimate of fair value of these financial instruments. Estimated rates currently available to the Company for debt with similar terms and remaining maturities and current market data are used to estimate the fair value of notes payable.

Quarterly Results of Operations (Unaudited)

<i>(In thousands, except per share amount)</i>	First	Second	Third	Fourth	Total
2020					
Revenue					
Manufacturing	\$ 657,367	\$ 489,943	\$ 653,007	\$ 549,654	\$2,349,971
Wheels, Repair & Parts	86,608	91,225	82,024	64,813	324,670
Leasing & Services	25,384	42,680	27,526	21,958	117,548
	<u>769,359</u>	<u>623,848</u>	<u>762,557</u>	<u>636,425</u>	<u>2,792,189</u>
Cost of revenue					
Manufacturing	581,912	422,309	562,793	498,155	2,065,169
Wheels, Repair & Parts	81,892	84,373	75,001	60,923	302,189
Leasing & Services	13,366	30,830	17,232	10,272	71,700
	<u>677,170</u>	<u>537,512</u>	<u>655,026</u>	<u>569,350</u>	<u>2,439,058</u>
Margin	92,189	86,336	107,531	67,075	353,131
Selling and administrative	54,364	54,597	49,494	46,251	204,706
Net gain on disposition of equipment	(3,959)	(6,697)	(8,775)	(573)	(20,004)
Earnings from operations	41,784	38,436	66,812	21,397	168,429
Other costs					
Interest and foreign exchange	12,852	12,609	7,562	10,596	43,619
Earnings before income tax and earnings (loss) from unconsolidated affiliates	28,932	25,827	59,250	10,801	124,810
Income tax expense	(5,994)	(7,463)	(24,421)	(2,306)	(40,184)
Earnings (loss) from unconsolidated affiliates	1,073	1,651	1,040	(804)	2,960
Net earnings	24,011	20,015	35,869	7,691	87,586
Net earnings attributable to noncontrolling interest	(16,342)	(6,386)	(8,097)	(7,794)	(38,619)
Net earnings (loss) attributable to Greenbrier	<u>\$ 7,669</u>	<u>\$ 13,629</u>	<u>\$ 27,772</u>	<u>\$ (103)</u>	<u>\$ 48,967</u>
Basic earnings per common share: ⁽¹⁾	\$ 0.24	\$ 0.42	\$ 0.85	\$ 0.00	\$ 1.50
Diluted earnings per common share: ⁽¹⁾	\$ 0.23	\$ 0.41	\$ 0.83	\$ 0.00	\$ 1.46

- (1) Quarterly amounts may not total to the year to date amount as each period is calculated discretely. Diluted EPS is calculated by including the dilutive effect, using the treasury stock method, associated with shares underlying the 2.875% Convertible notes, 2.25% Convertible notes, restricted stock units that are not considered participating securities and performance based restricted stock units subject to performance criteria, for which actual levels of performance above target have been achieved.

Quarterly Results of Operations (Unaudited)

<i>(In thousands, except per share amount)</i>	First	Second	Third	Fourth	Total
2019					
Revenue					
Manufacturing	\$ 471,789	\$ 476,019	\$ 681,588	\$ 802,103	\$2,431,499
Wheels, Repair & Parts	108,543	125,278	124,980	85,701	444,502
Leasing & Services	24,191	57,374	49,584	26,441	157,590
	<u>604,523</u>	<u>658,671</u>	<u>856,152</u>	<u>914,245</u>	<u>3,033,591</u>
Cost of revenue					
Manufacturing	417,805	442,996	590,788	686,036	2,137,625
Wheels, Repair & Parts	100,978	118,455	119,821	81,636	420,890
Leasing & Services	13,207	43,376	38,971	13,036	108,590
	<u>531,990</u>	<u>604,827</u>	<u>749,580</u>	<u>780,708</u>	<u>2,667,105</u>
Margin	72,533	53,844	106,572	133,537	366,486
Selling and administrative	50,432	47,892	54,377	60,607	213,308
Net gain on disposition of equipment	(14,353)	(12,102)	(11,019)	(3,489)	(40,963)
Goodwill impairment	—	—	10,025	—	10,025
Earnings from operations	<u>36,454</u>	<u>18,054</u>	<u>53,189</u>	<u>76,419</u>	<u>184,116</u>
Other costs					
Interest and foreign exchange	4,404	9,237	9,770	7,501	30,912
Earnings before income tax and earnings (loss) from unconsolidated affiliates	32,050	8,817	43,419	68,918	153,204
Income tax expense	(9,135)	(2,248)	(13,008)	(17,197)	(41,588)
Earnings (loss) from unconsolidated affiliates	467	(786)	(4,564)	(922)	(5,805)
Net earnings	23,382	5,783	25,847	50,799	105,811
Net earnings attributable to noncontrolling interest	(5,426)	(3,018)	(10,599)	(15,692)	(34,735)
Net earnings attributable to Greenbrier	<u>\$ 17,956</u>	<u>\$ 2,765</u>	<u>\$ 15,248</u>	<u>\$ 35,107</u>	<u>\$ 71,076</u>
Basic earnings per common share: ⁽¹⁾	<u>\$ 0.55</u>	<u>\$ 0.08</u>	<u>\$ 0.47</u>	<u>\$ 1.08</u>	<u>\$ 2.18</u>
Diluted earnings per common share: ⁽¹⁾	<u>\$ 0.54</u>	<u>\$ 0.08</u>	<u>\$ 0.46</u>	<u>\$ 1.06</u>	<u>\$ 2.14</u>

- (1) Quarterly amounts may not total to the year to date amount as each period is calculated discretely. Diluted EPS is calculated by including the dilutive effect, using the treasury stock method, associated with shares underlying the 2.875% Convertible notes, 2.25% Convertible notes, restricted stock units that are not considered participating securities and performance based restricted stock units subject to performance criteria, for which actual levels of performance above target have been achieved.

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

Our management has evaluated, under the supervision and with the participation of our Principal Executive Officer and Principal Financial and Accounting Officer, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report pursuant to Rule 13a-15(b) under the Securities Exchange Act of 1934 (the Exchange Act). Based on that evaluation, our Principal Executive Officer and Principal Financial and Accounting Officer have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective in ensuring that information required to be disclosed in our Exchange Act reports is (1) recorded, processed, summarized and reported in a timely manner, and (2) accumulated and communicated to our management, including our Principal Executive Officer and Principal Financial and Accounting Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Controls

There have been no changes in our internal control over financial reporting during the quarter ended August 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed under the supervision of our Principal Executive Officer and Principal Financial and Accounting Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States of America.

As of the end of our 2020 fiscal year, management conducted an assessment of the effectiveness of our internal control over financial reporting based on the framework established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management has determined that our internal control over financial reporting as of August 31, 2020 was effective.

Our independent registered public accounting firm, KPMG LLP, independently assessed the effectiveness of our internal control over financial reporting, as stated in their attestation report, which is included at the end of Part II, Item 9A of this Form 10-K.

Inherent Limitations on Effectiveness of Controls

Our management, including the Principal Executive Officer and Principal Financial and Accounting Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within our company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of controls effectiveness to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
The Greenbrier Companies, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited The Greenbrier Companies, Inc. and subsidiaries' (the Company) internal control over financial reporting as of August 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of August 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

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 August 31, 2020 and 2019, the related consolidated statements of income, comprehensive income, equity, and cash flows for each of the years in the three-year period ended August 31, 2020, and the related notes (collectively, the consolidated financial statements), and our report dated October 28, 2020 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included 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/ KPMG LLP

Portland, Oregon
October 28, 2020

Item 9B. OTHER INFORMATION

None

PART III**Item 10. DIRECTORS AND EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

Information required by this item will be included under the captions “Election of Directors”, “Board Committees, Meetings and Charters” and “Our Code of Business Conduct and Ethics and FCPA Compliance” in our definitive Proxy Statement on Schedule 14A for the 2021 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission within 120 days after the year ended August 31, 2020 (as amended, updated, supplemented, or restated, “2021 Proxy Statement”) and is incorporated herein by reference. Information required by this item regarding the executive officers of the Company is included under the caption “Information about our Executive Officers” in Part I of this 10-K and is incorporated herein by reference.

Item 11. EXECUTIVE COMPENSATION

The information required by this item will be included under the caption “Executive Compensation”, “Compensation Committee Report”, “2020 Director Compensation” and “Risk Oversight” in the 2021 Proxy Statement and is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDERS MATTERS

The information required by this item will be included under the captions “Stock Ownership of Certain Beneficial Owners and Management” and “Equity Compensation Plan Information” in the 2021 Proxy Statement and is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item will be included under the captions “Related Transactions” and “Board Independence” in the 2021 Proxy Statement and is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item will be included under the caption “Ratification of Appointment of Independent Auditors” in the 2021 Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(1) Financial Statements

See Consolidated Financial Statements in Item 8

(a) (2) Financial Statements Schedule**

* * All other schedules have been omitted because they are inapplicable, not required or because the information is given in the Consolidated Financial Statements or notes thereto. This supplemental schedule should be read in conjunction with the Consolidated Financial Statements and notes thereto included in this report.

(a) (3) The following exhibits are filed herewith and this list is intended to constitute the exhibit index:

- 3.1 Registrant's Articles of Incorporation are incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 10-Q filed April 5, 2006.
- 3.2 Articles of Merger amending the Registrant's Articles of Incorporation are incorporated herein by reference to Exhibit 3.2 to the Registrant's Form 10-Q filed April 5, 2006.
- 3.3 Amended and Restated Bylaws of the Registrant dated January 7, 2020 are incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed January 10, 2020.
- 4.1 Specimen Common Stock Certificate of Registrant is incorporated herein by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-3 filed April 7, 2010 (SEC File Number 333-165924).
- 4.2 Indenture between the Registrant and Wells Fargo Bank, National Association, as Trustee, including the Form of Note attached as Exhibit A thereto, dated February 6, 2017, is incorporated herein by reference to Exhibit 4.1 to the Registrant's Form 8-K filed February 6, 2017.
- 4.3 Description of the Registrant's Securities Under Section 12 of the Securities Exchange Act of 1934 is incorporated herein by reference to Exhibit 4.3 to the Registrant's Form 10-K filed October 29, 2019.
- 10.1* Amended and Restated Employment Agreement between the Registrant and Mr. William A. Furman, dated August 28, 2012, is incorporated herein by reference to Exhibit 10.3 to the Registrant's Form 10-Q filed January 9, 2013.
- 10.2* Amendment to Amended and Restated Employment Agreement between Registrant and Mr. William A. Furman dated as of July 6, 2020, is incorporated herein by reference to Exhibit 10.1 to the Registrant's Form 8-K filed July 10, 2020.
- 10.3* Form of Amended and Restated Employment Agreement between the Registrant and certain of its executive officers, as amended and restated on August 28, 2012, is incorporated herein by reference to Exhibit 10.8 to the Registrant's Form 10-K filed November 1, 2012.
- 10.4* Amendment No. 1 to Form of Amended and Restated Employment Agreement between the Registrant and certain of its executive officers, as amended and restated on August 28, 2012, is incorporated herein by reference to Exhibit 10.1 to the Registrant's Form 10-Q filed January 8, 2014.

- 10.5* Second Amendment to Form of Amended and Restated Employment Agreement between the Registrant and certain of its executive officers, as amended and restated on August 28, 2012, is incorporated herein by reference to Exhibit 10.1 to the Registrant's Form 10-Q filed June 29, 2018.
- 10.6* Form of Amendment to Amended and Restated Employment Agreement between the Registrant and certain of its executive officers is incorporated herein by reference to Exhibit 10.5 to the Registrant's Form 10-K filed October 29, 2019.
- 10.7* Form of Change of Control Agreement is incorporated herein by reference to Exhibit 10.5 to the Registrant's Form 10-Q filed April 4, 2013.
- 10.8* The Greenbrier Companies, Inc. Form of Amendment to Change of Control Agreement, approved on May 28, 2013, is incorporated herein by reference to Exhibit 10.2 of the Registrant's Form 8-K filed June 3, 2013.
- 10.9* The Greenbrier Companies, Inc. 2014 Amended and Restated Stock Incentive Plan is incorporated herein by reference to Appendix A to the Registrant's Proxy Statement on Schedule 14A filed November 19, 2014.
- 10.10* The Greenbrier Companies, Inc. 2017 Amended and Restated Stock Incentive Plan is incorporated herein by reference to Appendix A to the Registrant's Proxy Statement on Schedule 14A filed November 14, 2017.
- 10.11* The Greenbrier Companies, Inc. Nonqualified Deferred Compensation Plan 2018 Amendment and Restatement of the Basic Plan Document is incorporated herein by reference to Exhibit 10.4 to the Registrant's Form 10-Q filed June 29, 2018.
- 10.12* The Greenbrier Companies Nonqualified Deferred Compensation Plan 2018 Amendment and Restatement of the Adoption Agreement is incorporated herein by reference to Exhibit 10.5 to the Registrant's Form 10-Q filed June 29, 2018.
- 10.13* Updated Rabbi Trust Agreements, dated October 1, 2012, related to The Greenbrier Companies, Inc. Nonqualified Deferred Compensation Plan, are incorporated herein by reference to Exhibit 10.1 to the Registrant's Form 10-Q filed January 9, 2013.
- 10.14* Amendment No. 1 to Trust Agreement, dated June 15, 2018, related to The Greenbrier Companies, Inc. Nonqualified Deferred Compensation Plan, is incorporated by reference to Exhibit 10.6 to the Registrant's Form 10-Q filed June 29, 2018.
- 10.15* The Greenbrier Companies Nonqualified Deferred Compensation Plan Adoption Agreement for Directors, dated July 1, 2012, is incorporated herein by reference to Exhibit 10.28 to the Registrant's Form 10-K filed November 1, 2012.
- 10.16* Amendment No. 1 to the Greenbrier Companies Nonqualified Deferred Compensation Plan Adoption Agreement for Directors, dated December 15, 2015, is incorporated herein by reference to Exhibit 10.1 to the Registrant's Form 10-Q filed April 5, 2016.
- 10.17* The Greenbrier Companies, Inc. 2014 Employee Stock Purchase Plan is incorporated herein by reference to Appendix B to the Registrant's Definitive Proxy Statement on Schedule 14A filed on November 19, 2014.
- 10.18* The Greenbrier Companies, Inc. Amendment to 2014 Employee Stock Purchase Plan is incorporated herein by reference to Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A filed on November 14, 2018.

- 10.19* Consulting Services Agreement between Greenbrier Leasing Company LLC and Charles J. Swindells dated January 7, 2016 is incorporated herein by reference to Exhibit 10.3 to the Registrant's Form 10-Q filed April 5, 2016.
- 10.20 Dissolution Agreement, dated August 20, 2018, by and among the Registrant, Greenbrier Rail Services Holdings, LLC, Watco Companies, L.L.C., Millennium Rail, L.L.C., Watco Mechanical Services, L.L.C., GBW Railcar Services Holdings, L.L.C., GBW Railcar Services, L.L.C., and GBW Railcar Services Canada, Inc. is incorporated herein by reference to Exhibit 10.26 to the Registrant's Form 10-K filed October 26, 2018.
- 10.21 Second Amended and Restated Limited Liability Company Agreement of GBW Railcar Services Holdings, L.L.C., dated August 20, 2018, by and among Greenbrier Rail Services Holdings, LLC, Watco Mechanical Services, L.L.C., and Millennium Rail, L.L.C. is incorporated herein by reference to Exhibit 10.27 to the Registrant's Form 10-K filed October 26, 2018.
- 10.22 Fourth Amended and Restated Credit Agreement, dated as of September 26, 2018, by and among The Greenbrier Companies, Inc., Bank of America, N.A., as Administrative Agent, Merrill Lynch, Pierce, Fenner & Smith Incorporated, as Sole Lead Arranger and Sole Bookrunner, MUFG Union Bank, N.A., as Syndication Agent, Bank of the West, Branch Banking and Trust Company, Fifth Third Bank, and Wells Fargo Bank, National Association, as Co-Documentation Agents, and the lenders identified therein is incorporated herein by reference to Exhibit 10.28 to the Registrant's Form 10-K filed October 26, 2018.
- 10.23 First Amendment to the Fourth Amended and Restated Credit Agreement, dated as of September 26, 2018, by and among The Greenbrier Companies, Inc., Bank of America, N.A., as Administrative Agent, Merrill Lynch, Pierce, Fenner & Smith Incorporated, as Sole Lead Arranger and Sole Bookrunner, MUFG Union Bank, N.A., as Syndication Agent, Bank of the West, Branch Banking and Trust Company, Fifth Third Bank, and Wells Fargo Bank, National Association, as Co-Documentation Agents, and the lenders identified therein is incorporated by reference to Exhibit 10.22 to the Registrant's Form 10-K filed October 29, 2019.
- 10.24 Fourth Amended and Restated Security Agreement, dated as of September 26, 2018, by and among The Greenbrier Companies, Inc., and the other parties identified as Debtors therein, in favor of Bank of America, N.A., as Administrative Agent is incorporated herein by reference to Exhibit 10.29 to the Registrant's Form 10-K filed October 26, 2018.
- 10.25 Fourth Amended and Restated Pledge Agreement, dated as of September 26, 2018, by and among The Greenbrier Companies, Inc., and the other parties identified as Debtors therein, in favor of Bank of America, N.A., as Administrative Agent is incorporated herein by reference to Exhibit 10.30 to the Registrant's Form 10-K filed October 26, 2018.
- 10.26 Amended and Restated Credit Agreement, dated as of September 26, 2018, by and among Greenbrier Leasing Company LLC, an Oregon limited liability company, Bank of America, N.A., as Administrative Agent, Merrill Lynch, Pierce, Fenner & Smith Incorporated, as Sole Lead Arranger and Sole Bookrunner, MUFG Union Bank, N.A., as Syndication Agent, and the lenders identified therein is incorporated herein by reference to Exhibit 10.31 to the Registrant's Form 10-K filed October 26, 2018.
- 10.27 Amended and Restated Security Agreement, dated as of September 26, 2018, by and between Greenbrier Leasing Company LLC, an Oregon limited liability company, in favor of Bank of America, N.A., as Administrative Agent is incorporated herein by reference to Exhibit 10.32 to the Registrant's Form 10-K filed October 26, 2018.
- 10.28 Purchase Agreement, dated January 31, 2017, among The Greenbrier Companies, Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated and Goldman, Sachs & Co. is incorporated herein by reference to Exhibit 10.1 of the Registrant's Form 8-K filed February 6, 2017.

- 10.29 Asset Purchase Agreement, dated as of April 17, 2019, by and among The Greenbrier Companies, Inc., GBXL, LLC, and American Railcar Industries, Inc., is incorporated herein by reference to Exhibit 2.1 to the Registrant’s Form 8-K filed April 18, 2019.
- 10.30 Convertible Promissory Note issued by The Greenbrier Companies, Inc. to American Railcar Industries, Inc. is incorporated herein by reference to Exhibit 4.1 to the Registrant’s Form 8-K filed July 29, 2019.
- 14.1 Code of Business Conduct and Ethics.
- 21.1 List of the subsidiaries of the Registrant.
- 23.1 Consent of KPMG LLP.
- 31.1 Certification pursuant to Rule 13(a) – 14(a).
- 31.2 Certification pursuant to Rule 13(a) – 14(a).
- 32.1 Certification pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 101.INS Inline XBRL Instance Document.
- 101.SCH Inline XBRL Taxonomy Extension Schema Document.
- 101.CAL Inline XBRL Taxonomy Extension Calculation Linkbase Document.
- 101.DEF Inline XBRL Taxonomy Extension Definition Linkbase Document.
- 101.LAB Inline XBRL Taxonomy Extension Label Linkbase Document.
- 101.PRE Inline XBRL Taxonomy Extension Presentation Linkbase Document.
- 104 Cover Page Interactive Data File (Formatted as inline XBRL and contained in Exhibit 101).

* Management contract or compensatory plan or arrangement

Note: For all exhibits incorporated by reference, unless otherwise noted above, the SEC file number is 001-13146.

Item 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities and Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

THE GREENBRIER COMPANIES, INC.

Dated: October 28, 2020

By: /s/ William A. Furman
William A. Furman
Chief Executive Officer
(Principal Executive Officer)

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

<u>Signature</u>	<u>Date</u>
<u>/s/ William A. Furman</u> William A. Furman, Chief Executive Officer and Chairman of the Board	October 28, 2020
<u>/s/ Thomas B. Fargo</u> Thomas B. Fargo, Director	October 28, 2020
<u>/s/ Wanda F. Felton</u> Wanda F. Felton, Director	October 28, 2020
<u>/s/ Graeme A. Jack</u> Graeme A. Jack, Director	October 28, 2020
<u>/s/ Duane C. McDougall</u> Duane C. McDougall, Director	October 28, 2020
<u>/s/ David L. Starling</u> David L. Starling, Director	October 28, 2020
<u>/s/ Charles J. Swindells</u> Charles J. Swindells, Director	October 28, 2020
<u>/s/ Wendy L. Teramoto</u> Wendy L. Teramoto, Director	October 28, 2020
<u>/s/ Donald A. Washburn</u> Donald A. Washburn, Director	October 28, 2020
<u>/s/ Kelly M. Williams</u> Kelly M. Williams, Director	October 28, 2020
<u>/s/ Adrian J. Downes</u> Adrian J. Downes, Senior Vice President, Chief Financial Officer and Chief Accounting Officer (Principal Financial Officer and Principal Accounting Officer)	October 28, 2020

Directors

Director Name and Title

William A. Furman Chairman of the Board and Director

Thomas B. Fargo Independent Director

Wanda F. Felton Independent Director

Graeme A. Jack Independent Director

Duane C. McDougall Independent Director

David L. Starling Independent Director

Charles J. Swindells Independent Director

Wendy L. Teramoto Independent Director

Donald A. Washburn Independent Director

Kelly M. Williams Independent Director

Executive and Other Officers

William A. Furman

Chairman and Chief Executive Officer

Lorie L. Tekorius

President and Chief Operating Officer

Alejandro Centurion

Executive Vice President and President,
Greenbrier Manufacturing Operations

Brian J. Comstock

Executive Vice President,
Sales & Marketing

Mark J. Rittenbaum

Executive Vice President and
Chief Commercial & Leasing Officer

Martin R. Baker

Senior Vice President,
General Counsel and
Chief Compliance Officer

Laurie Dornan

Senior Vice President,
Chief Human Resources Officer

Adrian J. Downes

Senior Vice President,
Chief Financial Officer
and Chief Accounting Officer

Jack Isselmann

Senior Vice President,
External Affairs & Communications

Rick M. Turner

Senior Vice President,
Greenbrier Rail Services

Justin M. Roberts

Vice President,
Corporate Finance and Treasurer

Christian M. Lucky

Assistant General Counsel and
Corporate Secretary

Investor Information

Corporate Offices

The Greenbrier Companies, Inc.
One Centerpointe Drive, Suite 200
Lake Oswego, OR 97035

Annual Shareholders' Meeting

Wednesday, January 6, 2021 | 2:00 pm
Via Webcast at:
www.virtualshareholdermeeting.com/GBX2021

Financial Information

Request for copies of this annual report
and other financial information should be
made to:

Investor Relations

The Greenbrier Companies, Inc.
One Centerpointe Drive, Suite 200
Lake Oswego, OR 97035

investor.relations@gbrx.com
503-684-7000

Independent Auditors

KPMG LLP
Portland, OR 97201

Transfer Agent

Computershare Trust Company, N.A.
PO Box 505000
Louisville, KY 40233

Greenbrier's Transfer Agent maintains
stockholder records, issues stock
certificates and distributes dividends.
Requests concerning these matters
should be directed to Computershare
Trust Company, N.A.



MIX

Paper from responsible sources

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THE GREENBRIER COMPANIES

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Lake Oswego, Oregon 97035
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