

GREENBRIER COMPANIES INC

Form 10-K

October 26, 2018

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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, 2018

or

Transition Report Pursuant to Section 13 or 15(d)

of the Securities Exchange Act of 1934

for the transition period from _____ to _____

Commission File No. 1-13146

THE GREENBRIER COMPANIES, INC.

(Exact name of Registrant as specified in its charter)

Oregon

(State of Incorporation)

One Centerpointe 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:

(Title of Each Class)

(Name of Each Exchange on Which Registered)

Common Stock without par value

New York Stock Exchange

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

None

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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 during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

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

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

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

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.

Aggregate market value of the Registrant's Common Stock held by non-affiliates as of February 28, 2018 (based on the closing price of such shares on such date) was \$1,465,342,435.

The number of shares outstanding of the Registrant's Common Stock on October 19, 2018 was 32,190,763 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 9, 2019 are incorporated by reference into Parts II and III of this Report.

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Forward-Looking Statements

From time to time, The Greenbrier Companies, Inc. and its subsidiaries (Greenbrier or the Company) or their representatives have made or may make forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including, without limitation, statements as to expectations, beliefs and strategies regarding the future. Such forward-looking statements may be included in, but not limited to, press releases, oral statements made with the approval of an authorized executive officer or in various filings made by us with the Securities and Exchange Commission (SEC), including this filing on Form 10-K and in the Company's President's letter to stockholders that is typically distributed to the stockholders in conjunction with this Form 10-K and the Company's Proxy Statement. 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. 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. We undertake no obligations to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

These forward-looking statements rely on a number of assumptions concerning future events and include statements relating to:

- ability to grow our businesses;
- ability to obtain lease and sales contracts which provide adequate protection against attempted modifications or cancellations, changes in interest rates and increased costs of materials and components;
- ability to convert backlog of railcar orders and obtain and execute lease syndication commitments;
- ability to recruit, train and retain adequate numbers of qualified employees
- ability to obtain adequate certification and licensing of products;
- availability of financing sources and borrowing base and loan covenant flexibility for working capital, other business development activities, capital spending and leased railcars for syndication (sale of railcars with lease attached);
- ability to utilize beneficial tax strategies;
- ability to renew, maintain or obtain sufficient credit facilities and financial guarantees on acceptable terms including loan covenants;
- ability to obtain adequate insurance coverage at acceptable rates; and
- short-term and long-term revenue and earnings effects of the above items.

The following factors, among others, could cause actual results or outcomes to differ materially from the forward-looking statements:

- fluctuations in demand for newly manufactured railcars or marine barges, for wheels, repair services and parts and for railcar management and leasing services;
- delays in receipt of orders, risks that contracts may be canceled or modified during their term, not renewed, unenforceable or breached by the customer and that customers may not purchase the amount of products or services under the contracts as anticipated;
- availability of a trained work force at a reasonable cost and with reasonable terms of employment;
- our ability to maintain good relationships with our labor force, third party labor providers and collective bargaining units representing our direct and indirect labor force;
- domestic and international economic conditions including such matters as embargoes, quotas, tariffs, or modifications to existing trade agreements;

domestic and international political and security conditions including such matters as terrorism, war, civil disruption and crime;
the policies and priorities of the federal government including those concerning international trade, infrastructure and corporate taxation;
sovereign risk related to international governments that includes, but is not limited to, governments stopping payments, repudiating their contracts, nationalizing private businesses and assets or altering foreign exchange regulations;
growth or reduction in the surface transportation industry, the enactment of policies favoring other types of surface transportation over rail transportation or the impact from technological advances;

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our ability to maintain sufficient availability of credit facilities and to maintain compliance with or to obtain appropriate amendments to covenants under various credit agreements;

our ability to maintain good relationships with our customers and suppliers;

our ability to renew or replace expiring customer contracts on satisfactory terms;

our ability to obtain and execute suitable lease contracts for leased railcars for syndication;

steel and specialty component price fluctuations and availability, scrap surcharges, steel scrap prices and other commodity price fluctuations and availability and their impact on product demand and margin;

the delay or failure of acquired businesses or joint ventures, assets, start-up operations, or new products or services to compete successfully;

our failure to successfully integrate joint ventures or acquired businesses or complete previously announced transactions;

discovery of previously unknown liabilities associated with acquired businesses;

changes in product mix and the mix of revenue levels among reporting segments;

labor disputes, energy shortages or operating difficulties that might disrupt operations or the flow of cargo;

production difficulties and product delivery delays as a result of, among other matters, costs or inefficiencies associated with expansion, start-up, or changing of production lines or changes in production rates, equipment failures, changing technologies, transfer of production between facilities or non-performance of alliance partners, subcontractors or suppliers;

lower than anticipated lease renewal rates, earnings on utilization-based leases or residual values for owned or managed leased equipment;

discovery of defects in railcars or services resulting in increased warranty costs or litigation;

physical damage, business interruption or product or service liability claims that exceed our insurance coverage;

commencement of and ultimate resolution or outcome of pending or future litigation and investigations;

natural disasters or severe or unusual weather patterns that may affect either us, our suppliers or our customers;

loss of business from, or a decline in the financial condition of, any of the principal customers that represent a significant portion of our total revenues;

competitive factors, including introduction of competitive products, new entrants into certain of our markets, price pressures, limited customer base, and competitiveness of our manufacturing facilities and products;

industry overcapacity and our manufacturing capacity utilization;

decreases or write-downs in carrying value of inventory, goodwill, intangibles or other assets due to impairment;

severance or other costs or charges associated with layoffs, shutdowns, or reducing the size and scope of operations;

changes in future maintenance or warranty requirements;

our ability to adjust to the cyclical nature of the industries in which we operate;

changes in interest rates and financial impacts from interest rates;

our ability and cost to maintain and renew operating permits;

actions or failures to act by various regulatory agencies including changing tank car or other rail car regulations;

potential environmental remediation obligations;

changes in commodity prices, including oil and gas;

risks associated with our intellectual property rights or those of third parties, including infringement, maintenance, protection, validity, enforcement and continued use of such rights;

expansion of warranty and product support terms beyond those which have traditionally prevailed in the rail supply industry;

availability and/or price of essential raw materials, specialties or components, including steel castings, to permit manufacture of units on order;

the failure of, or our delay in implementing and using, new software or other technologies;

the impact of cybersecurity risks and the costs of mitigating and responding to a data security breach;

our ability to replace maturing lease and management services revenue and earnings from equipment sold from our lease fleet with revenue and earnings from new commercial transactions, including new railcar leases, additions to the lease fleet and new management services contracts;
financial impacts from currency fluctuations and currency hedging activities in our worldwide operations;

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credit limitations upon our ability to maintain effective hedging programs;
increased costs or other impacts on us or our customers due to changes in legislation, taxes, regulations or accounting pronouncements;
our ability to effectively execute our business and operating strategies if we become the target of shareholder activism; and
fraud, misconduct by employees and potential exposure to liabilities under the Foreign Corrupt Practices Act and other anti-corruption laws and regulations.

Any forward-looking statements should be considered in light of these factors. Words such as anticipates, believes, forecast, potential, goal, contemplates, expects, intends, plans, projects, hopes, seeks, estimates, would, should, likely, will, may, can, designed to, future, foreseeable future and similar expressions are used in forward-looking statements. These forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward-looking statements. Many of the important factors that will determine these results and values are beyond our ability to control or predict. You are cautioned not to place undue reliance on any forward-looking statements, which reflect management's opinions only as of the date hereof. Except as otherwise required by law, we do not assume any obligation to update any forward-looking statements.

In assessing forward-looking statements contained herein, readers are urged to read carefully all cautionary statements contained in this Form 10-K, including, without limitation, those contained under the heading, Risk Factors, contained in Part I, Item 1A of this Form 10-K.

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, Maxi-Stack, Auto-Max and YSD are registered trademarks of Gunderson LLC.

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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 and South America. We manufacture railcars in Brazil through a strategic investment that we account for under the equity method of accounting and 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 through our wheels, repair & parts business. We also offer railcar management, regulatory compliance services and leasing services to railroads and related transportation industries in North America. Through unconsolidated affiliates, we produce industrial and rail castings, tank heads and other components.

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 utilizing our substantial engineering, mechanical and technical capabilities as well as our experienced commercial personnel. This model allows us to develop cross-selling opportunities and synergies among our various business segments and to enhance our margins. We believe our integrated model is difficult to duplicate and provides greater value for our customers.

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 19 Segment Information to our Consolidated Financial Statements. Prior to August 20, 2018, we operated in four reportable segments: Manufacturing; Wheels & Parts; Leasing & Services; and GBW Joint Venture. On August 20, 2018 we entered into an agreement with our joint venture partner to discontinue the GBW Railcar Services (GBW) railcar repair joint venture, which resulted in 12 repair shops returned to us. Beginning on August 20, 2018, GBW Joint Venture was no longer considered a reportable segment.

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 a broad array of railcar types in North America, which includes most railcar types other than coal cars. 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:

Intermodal Railcars - We manufacture a comprehensive range of intermodal railcars. Our most important intermodal product is our articulated 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.

Tank Cars - We produce a variety of tank cars, including both general and certain pressurized tank cars, which are designed for the transportation of products such as petroleum products, ethanol, liquefied petroleum gas, caustic soda, chlorine, urea ammonium nitrate, vegetable oils, bio-diesel and various other products and we continue to expand our product offerings.

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.

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Conventional Railcars - We produce a variety of covered hopper cars for the grain, fertilizer, sand, cement and petrochemical industries as well as gondolas and open top hoppers for the steel, metals and aggregate markets. We also produce a wide range of boxcars, which are used in the transport of paper products, perishables, general merchandise and commodities. Our flat car products include center partition cars for the forest products industry, bulkhead flat cars, heavy-duty flat cars, and solid waste service flat cars.

European Railcar Manufacturing - Our European manufacturing operations produce a variety of tank, automotive and conventional freight railcar (wagon) types, including a comprehensive line of pressurized tank cars for liquid petroleum gas and ammonia and non-pressurized tank cars for light oil, chemicals and other products. In addition, we produce flat cars, coil cars for the steel and metals market, gondolas, sliding wall cars and automobile transporter cars.

Marine Vessel Fabrication - Our Portland, Oregon manufacturing facility, located on a deep-water port on the Willamette River, includes marine vessel fabrication capabilities. The marine facilities also increase utilization of steel plate burning and fabrication capacity providing flexibility for railcar production. U.S. coastwise law, commonly referred to as the Jones Act, requires all commercial vessels transporting merchandise between ports in the U.S. to be built, owned, operated and manned by U.S. citizens and to be registered under the U.S. flag. We manufacture a broad range of Jones Act ocean-going and river barges for transporting merchandise between ports within the U.S. including conventional deck barges, double-hull tank barges, railcar/deck barges, barges for aggregates and other heavy industrial products and dump barges. Our primary focus is on the larger ocean-going vessels although the facility has the capability to compete in other marine-related products.

Wheels, Repair & Parts Segment

Wheel Services - We operate a large wheel services network in North America. Our wheel shops, operating in eight locations, provide complete wheel services including reconditioning of wheels and axles in addition to new axle machining and finishing and axle 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 repairs shops, operating at 12 locations, perform heavy railcar repair, refurbishment and routine railcar maintenance for third parties and our leased and managed railcar fleet.

Component Parts Manufacturing - Our component parts facilities, operating in four locations, 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 - Through our North American leasing business, our relationships with financial institutions, combined with our ownership of a lease fleet of approximately 8,100 railcars (6,300 railcars held as equipment on operating leases, 1,600 held as leased railcars for syndication and 200 held as finished goods inventory), enables us to offer flexible financing programs including operating leases and by the mile leases to our customers. In addition, we frequently originate leases of railcars, which are either newly built or refurbished by us, or buy railcars from the secondary market, and sell the railcars and attached leases to financial institutions and subsequently provide such institutions with management services under multi-year agreements. As an equipment owner and an originator of leases, we participate principally in the operating lease segment of the market. The majority of our leases are full service leases whereby we are responsible for maintenance and administration. Assets from our owned lease fleet are periodically sold to take advantage of market conditions, 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), administration and railcar re-marketing. We currently provide management services

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for a fleet of approximately 357,000 railcars for railroads, shippers, carriers, institutional investors and other leasing and transportation companies in North America. 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.

Customer Profile

	Fleet Profile ⁽¹⁾
	As of August 31, 2018
Managed Units:	
Class I Railroads	178,611
Leasing Companies	105,675
Shipping Companies	51,369
Non-Class I Railroads	20,115
Off-lease	985
Total Managed Units	356,755
Total Owned Units ⁽²⁾	8,070
Total Owned & Managed Units	364,825

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

⁽²⁾ The percentage of owned units on lease was 94.4% at August 31, 2018 with an average remaining lease term of 2.2 years. The average age of owned units is 10 years.

Unconsolidated Affiliates

Brazilian Railcar Manufacturing - We have a 60% ownership interest in Greenbrier-Maxion Equipamentos E Serviços Ferroviários S.A. (Greenbrier-Maxion), the leading railcar manufacturer 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 24.5% ownership interest in Amsted-Maxion Fundação E Equipamentos Ferroviários S.A. (Amsted-Maxion Cruzeiro) based in Cruzeiro, Brazil. Amsted-Maxion Cruzeiro is a manufacturer of various castings and components for railcars and other heavy industrial equipment. Amsted-Maxion Cruzeiro 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 castings and tank heads.

Backlog

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

	2018	August 31, 2017	2016
New railcar backlog units ⁽¹⁾	27,400	28,600	27,500
Estimated future revenue value (in millions) ⁽²⁾	\$ 2,740	\$ 2,800	\$ 3,190

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

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

Our total manufacturing backlog of railcar units as of August 31, 2018 was approximately 27,400 units with an estimated value of \$2.74 billion, of which 21,200 units are for direct sales and 6,200 units are for lease to third parties. Approximately 3% of backlog units and 2% of the estimated value as of August 31, 2018 was associated with our Brazilian manufacturing operations which is accounted for under the equity method.

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Based on current production schedules, approximately 20,500 units in the August 31, 2018 backlog are scheduled for delivery in 2019. The balance of the production is scheduled for delivery in 2020 and beyond. Multi-year supply agreements are a part of rail industry practice. 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, which may impact the dollar amount of backlog. Marine backlog as of August 31, 2018 was \$61 million compared to \$42 million as of August 31, 2017.

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 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 and competitive pricing of our railcars have helped us maintain our long-standing relationships with our customers.

In 2018, revenue from two customers, TTX Company (TTX) and Wells Fargo & Company (Wells Fargo), accounted for approximately 31% of total revenue, 36% of Manufacturing revenue, 16% of Wheels, Repair & Parts revenue and 1% of Leasing & Services 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 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 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 2018, the top ten suppliers for all inventory purchases accounted for approximately 52% of total purchases. Amsted Rail Company, Inc. accounted for 19% of total inventory purchases in 2018. 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 the second largest railcar manufacturer in North America of the seven major railcar manufacturers competing in North America. There are a handful of specialty builders who focus on niche markets. We believe that in

Europe we are in the top tier of railcar manufacturers. European freight car manufacturers are largely located in central and eastern Europe where labor rates are lower and work rules are more flexible. 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 or participate in, we compete on the basis of quality, price, reliability of delivery, product design and innovation, reputation and customer service and support.

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Competition in the marine industry is dependent on the type of product produced. There are few competitors that build product types similar to ours. 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 the railcar repair and refurbishment business and an increasing number of competitors in the wheel services and other parts 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 services. Many of these institutions have greater financial resources than we do. 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 position.

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. Recent product launches include the Dura-Max open top hopper and small pressurized tank cars optimized for the transport of chlorine. Research and development costs incurred during the years ended August 31, 2018, 2017 and 2016 were \$6.0 million, \$4.2 million and \$2.7 million, respectively.

Patents and Trademarks

We have a number of U.S. and non-U.S. patents of varying duration, and pending patent applications, registered trademarks, copyrights and trade names that are important to our products and product development efforts. The protection of our intellectual property is important to our business and we have a proactive program aimed at protecting our intellectual property and the results from our research and development.

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 usually 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.

Table of Contents**Portland Harbor Superfund Site**

Our Portland, Oregon manufacturing facility 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 us (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 have not signed such consent, but nevertheless contributed money 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, we 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 16, 2020. The allocation process is continuing in parallel with the process to define the remediation steps.

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 it wants to collect 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 our Portland, Oregon manufacturing facility 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 us, have agreed to help fund the additional sampling.

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, Oregon manufacturing facility. 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

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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 our Portland property.

On January 30, 2017 the Confederated Tribes and Bands of Yakama Nation sued 33 parties including us 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. We, along with many of the other defendants, moved to dismiss the case. That motion is pending. The complaint does not specify the amount of damages the Plaintiff will seek.

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

We have entered into a Voluntary Cleanup Agreement with the DEQ in which we agreed to conduct an investigation of whether, and to what extent, past or present operations at our 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 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 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, 2018, we had approximately 13,400 full-time employees at our consolidated entities, consisting of 12,100 employees in Manufacturing, 1,000 in Wheels, Repair & Parts and 300 employees in Leasing & Services and

corporate. In Manufacturing, 7,300 employees, all of whom are located in Mexico and Europe, are represented by unions. At our Wheels, Repair & Parts locations, 73 employees are represented by a union. We believe that our relations with our employees are generally good.

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Additional Information

We are a reporting company and file annual, quarterly, current and special reports, proxy statements and other information with the SEC. 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.

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Item 1A. RISK FACTORS

In addition to the risks outlined in this annual report under the heading Forward-Looking Statements, as well as other comments included herein regarding risks and uncertainties, the following risk factors should be carefully considered when evaluating our company. Our business, financial condition or financial results could be materially and adversely affected by any of these risks. In addition, new risks may emerge at any time, and we cannot predict those risks or estimate the extent to which they may affect us.

The cyclical nature of our business, economic downturns or a rising interest rate environment can result in lower demand for our products and services and reduced revenue.

Our business is cyclical. Overall economic conditions and the purchasing practices of buyers have a significant effect upon our business due to the impact on demand for our products and services. As a result, during downturns, we could operate with a lower level of backlog and may slow down or halt production at some or all of our facilities. Economic conditions that result in higher interest rates increase the cost of new leasing arrangements, which could cause some of our leasing customers to lease fewer of our railcars or demand shorter lease terms. An economic downturn or increase in interest rates may reduce demand for our products and services, resulting in lower sales volumes, lower prices, lower lease utilization rates and decreased profits.

Interest rates remain at relatively low levels. 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 change in our product mix due to shifts in demand or fluctuations in commodity and energy prices could have an adverse effect on our profitability.

We manufacture, lease and repair a variety of railcars. The demand for specific types of these railcars and mix of repair and refurbishment work varies from time to time. Instability and changes in the global economy, volatility in the industries that our products serve or adverse changes in the financial condition of our customers could adversely impact the demand for our railcars. In addition, fluctuations in commodity and energy prices, including crude oil and gas prices, could negatively impact the activities of our customers resulting in a corresponding adverse effect on the demand for our products and services. These shifts in demand could affect our results of operations and could have an adverse effect on our profitability. Demand for railcars that are used to transport crude oil and other energy related products is dependent on the demand for these commodities. Prices for oil and gas are subject to large fluctuations in response to relatively minor changes in the supply of, and demand for, oil and gas, market uncertainty and a variety of other economic factors that are beyond our control.

A decline in performance of the rail freight industry would have an adverse effect on our financial condition and results of operations.

Our future success depends in part upon the performance of the rail freight industry, which in large part depends on the health of the economy. If railcar loadings, railcar and railcar components replacement rates or refurbishment rates or industry demand for our railcar products weaken or otherwise do not materialize, if railcar transportation becomes more efficient from an increase in velocity or a decrease in dwell times, if there is a negative impact due to technological advances or if the rail freight industry becomes oversupplied, our financial condition and results of operations would be adversely affected.

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

Our manufacturing backlog represents future production for which we have written orders from our customers in various periods, and estimated potential revenue attributable to those orders. Some of this backlog is subject to

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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 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. The likelihood of attempted cancellations or modifications of contracts generally increases during periods of market weakness. Actual revenue from such contracts 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.

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 our customers will continue to purchase or lease our products or services or that they will continue to do so at historical levels. A reduction in the purchasing or leasing of our products or a termination of our services by one or more of our major customers could have an adverse effect on our business and operating results.

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, which could reduce our revenue and decrease our overall return or effect our ability to sell leased assets in the future.

The profitability of our railcar leasing business depends on our ability to lease railcars to our customers at satisfactory rates, and to remarket, sell or scrap railcars we own or manage upon the expiration of existing lease terms. The total rental payments we receive under our operating leases do not fully amortize the acquisition costs of the leased equipment, which exposes us to risks associated with remarketing the railcars and the risk of not realizing the expected residual values. Our ability to lease or remarket leased railcars profitably is dependent upon several factors, including, but not limited to, market and industry conditions, cost of and demand for competing used or newer models, costs associated with the refurbishment of the railcars, market demand or governmental mandate for refurbishment, assumptions related to expected 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 risk 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. From August 31, 2015 to August 31, 2018, the percentage of railcars in the fleet on lease has declined from approximately 97% to 94%. Our inability to lease, remarket or sell leased railcars on favorable terms could result in reduced revenues and margins or net gain on disposition of equipment and decrease our overall returns and affect our ability to syndicate railcars to investors.

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

Our current operations outside of the U.S. and any future expansion of our international operations are subject to the risks associated with foreign and cross-border business transactions and activities. Political, legal, trade, financial market or economic changes or instability could limit or curtail our foreign business activities and operations. Some foreign countries in which we operate or may operate have regulatory authorities that regulate railroad safety, railcar design and railcar component part design, performance and manufacturing. If we fail to obtain and maintain certifications of our railcars and railcar parts within the various foreign countries where we operate or may operate, we may be unable to market and sell our railcars in those countries. In addition, unexpected changes in regulatory

requirements, tariffs and other trade barriers, more stringent rules relating to labor or the environment, adverse tax consequences and currency and price exchange controls could limit operations and make the manufacture and distribution of our products difficult. Sovereign risk exists related to

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international governments that include, but may not be limited to, governments stopping payments or repudiating, renegotiating or nullifying their contracts, nationalizing private businesses and assets or altering banking, foreign exchange or tax regulations. The uncertainty of the legal environment or geo-political risks in these and other areas could limit our ability to enforce our rights effectively. We may experience longer customer payment cycles, difficulty in collecting accounts receivable or an inability to effectively protect intellectual property. Because we have operations outside the U.S., we could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar worldwide anti-corruption laws. We operate in parts of the world that have experienced governmental corruption to some degree, and in certain circumstances, strict compliance with anti-corruption laws may conflict with local customs and practices. The failure to comply with laws governing international business practices may result in substantial penalties and fines. Any international expansion or acquisition that we undertake could amplify these risks related to operating outside of the U.S. Our development of customer relationships in areas outside of the U.S. may expose us to uncertainties arising from local business practices, judicial processes, cultural considerations and international political and trade tensions and our limited knowledge of foreign markets or our inability to protect our interests.

If we are unable to successfully manage the risks associated with our international business, our results of operations, financial condition, liquidity and cash flows may be negatively impacted.

Changes impacting international trade and corporate tax provisions related to the production and sales of our products may have an adverse effect on our financial condition and results of operations.

We own, lease, operate or have invested in joint ventures or entities which have manufacturing facilities in Mexico, Brazil and Europe. Our business benefits from free trade agreements such as the North American Free Trade Agreement (NAFTA) and we also rely on various U.S. corporate tax provisions related to international commerce as we build, market and sell our products internationally. NAFTA and future import taxes have been under scrutiny by the U.S. administration. On September 30, 2018 the President of the U.S. and the U.S. Trade Representative announced a new trade pact with the governments of Canada and Mexico called the United States-Mexico-Canada Agreement (USMCA). We believe the benefits we currently receive under NAFTA will continue under the USMCA. To take effect, the USMCA must be enacted by the U.S. Congress under laws governing Trade Promotion Authority. It is expected NAFTA will remain effective until this occurs. Any changes in trade treaties, corporate tax policy, import taxes and foreign policies could adversely and significantly affect our financial condition and results of operations.

Shortages of skilled labor or increased labor costs 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 laborers often exceeds supply. Shortages of some types of skilled laborers 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, particularly when the economy expands, production rates are high or competition for such skilled labor increases. 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 on a timely basis could materially adversely affect our business and results of operations.

The rail freight industry could become oversupplied and the use of railcars as a significant mode of transporting freight could decline, become more efficient over time, experience a shift in types of modal transportation, and/or

certain railcar types could become obsolete.

The rail freight industry could become oversupplied, which could have a significant impact on the pricing, lease rates or demand for new railcars. In addition, if railcar transportation becomes more efficient from an increase in

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velocity or a decrease in idle times, especially if coupled with lower freight volumes, some of which may be permanent due to a reduction in coal volumes, this could significantly reduce the demand for our products and could adversely affect our results of operations. As the freight transportation markets we serve continue to evolve and become more efficient or are disrupted through technological developments, the use of railcars may decline in favor of other more economic modes of transportation. Features and functionality specific to certain railcar types could result in those railcars becoming obsolete as customer requirements for freight delivery change. Our operations may be adversely impacted by changes in the preferred method used by customers to ship their products or changes in demand for particular products. The industries in which our customers operate are driven by dynamic market forces and trends, which are in turn influenced by economic and political factors. Demand for our railcars may be significantly affected by changes in the markets in which our customers operate. A significant reduction in customer demand for transportation or manufacture of a particular product or change in the preferred method of transportation used by customers to ship their products could result in reduced demand for railcars and the economic obsolescence of our railcars, including those leased by our customers.

We face aggressive competition by a concentrated group of competitors and a number of factors may influence our performance. If we are unable to compete successfully, our market share, margin and results of operations may be adversely affected.

We face aggressive competition by a concentrated group of competitors in all geographic markets and in each area of our business. In addition, other companies may attempt to enter markets in which we compete. Some of these competitors are owned or financially supported by foreign countries or sovereign wealth funds, and may potentially sell products and services below cost, or otherwise compete unfairly, in order to gain market share. These markets are intensely competitive and we expect it to remain so in the foreseeable future. Competitive factors, including introduction of competitive products, new entrants into certain of our markets, price pressures, limited customer base and the relative competitiveness of our manufacturing facilities and products affect our ability to compete effectively. In addition, new technologies or the introduction of new railcars or other product offerings by our competitors could render our products obsolete or less competitive. If we do not compete successfully, our market share, margin and results of operations may be adversely affected.

We may pursue strategic opportunities, including new joint ventures, acquisitions and new business endeavors that involve inherent risks, any of which may cause us not to realize anticipated benefits and we could have difficulty integrating the operations of companies that we acquire or joint ventures we enter into, which could adversely affect our results of operations.

We may not be able to successfully identify suitable joint venture, acquisition and new business endeavors to invest in or complete potential transactions on acceptable terms. Our identification of suitable joint venture opportunities, acquisition candidates and new business endeavors involve risks inherent in assessing the values, strengths, weaknesses, risks and profitability of these opportunities. Our failure to identify suitable joint ventures, acquisition opportunities and new business endeavors may restrict our ability to grow our business. If we are successful in pursuing such opportunities, we may be required to expend significant funds or incur additional debt, which could materially adversely affect our results of operations and limit our ability to obtain financing for working capital or other purposes and we may be more vulnerable to economic downturns and competitive pressures.

The success of our acquisition and joint venture strategies depends upon our ability to successfully complete acquisitions, to enter into joint ventures and to integrate any businesses that we acquire into our existing business. The integration of acquired business operations could disrupt our business by causing unforeseen operating difficulties, diverting management's attention from day-to-day operations and requiring significant financial resources that would otherwise be used for the ongoing development of our business. The difficulties of integration could be increased by

the necessity of coordinating geographically dispersed organizations, integrating personnel with disparate business backgrounds and combining different corporate cultures. Each of these circumstances could be more likely to occur or be more severe in consequence in the case of an acquisition or joint venture involving a business that is outside of our core areas of expertise. In addition, we could be unable

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to retain key employees or customers of the combined businesses. We could face integration issues including those related to operations, internal controls, information systems and operational functions of the acquired companies and we also could fail to realize cost efficiencies or synergies that we anticipated when selecting our acquisition candidates and joint ventures. Any of these items could adversely affect our results of operations.

If we or our joint ventures fail to complete capital expenditure projects on time and within budget, or if these projects, once completed, fail to operate as anticipated, such failure could adversely affect our business, financial condition and results of operations.

From time-to-time, we, or our joint ventures, undertake strategic capital projects in order to enhance, expand and/or upgrade facilities and operational capabilities. Our ability, and our joint ventures' ability, to complete these projects on time and within budget, and for us to realize the anticipated increased revenues or otherwise realize acceptable returns on these investments or other strategic capital projects that may be undertaken is subject to a number of risks. Many of these risks are beyond our control, including a variety of market, operational, permitting, and labor related factors. In addition, the cost to implement any given strategic capital project ultimately may prove to be greater than originally anticipated. If we, or our joint ventures, are not able to achieve the anticipated results from the implementation of any of these strategic capital projects, or if unanticipated implementation costs are incurred, our business, financial condition and results of operations may be adversely affected.

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, and we periodically accept orders prior to receipt of railcar certification or proof of ability to manufacture a quality product that meets customer standards. We could be unable to successfully design or manufacture these new railcar product innovations or technologies. Our inability to develop and manufacture such new product innovations or technologies in a timely fashion and profitable manner, obtain timely certification, or achieve market acceptance, or the existence of quality problems in our new products, could have a material adverse effect on our revenue and results of operations and subject us to penalties, cancellation of orders and/or other damages.

Our relationships with our joint venture and alliance partners could be unsuccessful, which could adversely affect our business.

We have entered into several joint venture agreements and other alliances or investments with other companies to increase our sourcing alternatives, reduce costs and produce new railcars or components. We may seek to expand our relationships or enter into new agreements with other companies. If our joint venture or alliance partners are unable to fulfill their contractual obligations or if these relationships are otherwise not successful in the future, our manufacturing and other costs could increase, we could encounter production disruptions, growth opportunities could fail to materialize, or we could be required to fund such joint ventures or alliances in amounts significantly greater than initially anticipated, any of which could adversely affect our business.

If any of our joint ventures generate significant losses, including future potential intangible asset or goodwill impairment charges, it could adversely affect our results of operations or cause our investment to be impaired.

We have potential exposure to environmental liabilities, which could increase costs or have an adverse effect on 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

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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 below. 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.

Portland Harbor Superfund Site

Our Portland, Oregon manufacturing facility 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). We, along with 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 us (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 have not signed such consent, but nevertheless contributed money 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. We cannot provide assurance that some or all of any such outlay will be recoverable from other responsible parties. The EPA issued its ROD for the Portland Harbor Site on January 6, 2017 and accordingly on October 26, 2017, the AOC was terminated.

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The ROD does not assign 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 option 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,

Oregon manufacturing facility. Because these environmental investigations are still underway, including the collection of new pre-remedial design sampling data by the 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

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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 our Portland property.

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

We may build railcars or marine barges in anticipation of a customer order, or that are leased to a customer and ultimately planned to be sold to a third party. The difference in timing of production and the ultimate sale subjects our company to operational and market risks. In addition, we periodically sell railcars from our own lease fleet and the timing and volume of such sales is 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.

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. 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.

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.

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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. 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, 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 or pay for products from us or our suppliers' ability to provide us with product, either of which could negatively affect our business and results of operations.

Volatility in the global financial markets may adversely affect our business, financial condition and results of operations.

During periods of volatility in the global financial markets, certain of our customers could delay or otherwise reduce their purchases of railcars and other products and services. If volatile conditions in the global credit markets impact our customers' access to credit, product order volumes may decrease or customers may default on payments owed to us.

Likewise, if our suppliers face challenges obtaining credit, or otherwise operating their businesses, the supply of materials we purchase from them to manufacture our products may be interrupted. 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 actual results may differ significantly from our announced expectations.

From time to time, we have released, and may continue to release guidance estimates in our quarterly and annual earnings releases, quarterly and annual earnings conference calls, or otherwise, regarding our future performance that represent our management's estimates as of the date of release. Although we believe that any such guidance or estimates would provide investors and analysts with a better understanding of management's expectations for the future and could be useful to our shareholders and potential shareholders, such guidance or estimates would consist of forward-looking statements subject to the risks and uncertainties described in this report and in our other public filings and public statements. Guidance and estimates are necessarily speculative in nature, and it can be expected that some or all of the assumptions underlying the guidance or estimates may not materialize or may vary significantly from actual results. Our actual results may not always be in line with or exceed any guidance or estimates we may provide, especially in times of economic uncertainty. If our financial results for a particular period do not meet our guidance or estimates or the expectations of investors or research analysts, or if we reduce our guidance or estimates for future period, the trading volume or market price of our common stock may decline. In light of the foregoing, investors are urged not to unduly rely upon any guidance or estimates in making an investment decision regarding our common stock.

Fluctuations in the availability and price of energy, freight transportation, steel and other raw materials, and our fixed price contracts could have an adverse effect on our ability to manufacture and sell our products on a cost effective basis and could adversely affect our margins and revenue.

A significant portion of our business depends upon the adequate supply of steel, components and other raw materials at competitive prices and a small number of suppliers provide 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. If we are not able to purchase these materials at competitive prices, it could adversely impact our ability to produce and sell our products on a cost effective basis which could affect our revenue and profitability.

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Our businesses also depend upon an adequate supply of energy at competitive prices. When the price of energy increases, it adversely impacts our operating costs and could have an adverse effect upon our ability to conduct our businesses on a cost-effective basis. We cannot be assured that we will continue to have access to supplies of energy or necessary components for manufacturing railcars and marine barges. Our ability to meet demand for our products could be adversely affected by the loss of access to any of these supplies, the inability to arrange alternative access to any materials, or suppliers limiting allocation of materials to us.

In some instances, we have fixed price contracts that anticipate material price increases and surcharges, or contracts that contain actual or formulaic pass-through of material price increases and surcharges. However, if the price of steel or other raw materials were to fluctuate in excess of anticipated increases on which we have based our fixed price contracts, or if we were unable to adjust our selling prices or have adequate protection in our contracts against changes in material prices, or if we are unable to reduce operating costs to offset any price increases, our margins would be adversely affected. 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.

Decreases in the price of scrap adversely impact our Wheels, Repair & Parts margins and revenue and the residual value and future depreciation of our leased assets. 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 business would decrease.

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 2018, the top ten suppliers for all inventory purchases accounted for approximately 52% of total purchases. Amsted Rail Company, Inc. accounted for 19% of total inventory purchases in 2018. 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. Increases in the number of railcars manufactured could increase the demand for such components and services and strong demand may cause industry-wide shortages if suppliers are in the process of ramping up production or reach capacity production. Our dependence on a limited number of suppliers involves risks, including limited control over pricing, availability and delivery schedules. 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, 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. We could also incur delays while we attempt to locate and engage alternative qualified suppliers and we might be unable to engage acceptable alternative suppliers on favorable terms, if at all. 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.

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

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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 for 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. Additionally, the severity of injury or property damage arising from an incident may influence the causation responsibility analysis exposing us to potentially greater liability. If we become subject to any such claims and are unable successfully to resolve them or have inadequate insurance for such claims, our business, financial condition and results of operations could be materially adversely affected.

Changes in or failure to comply with legal and regulatory requirements applicable to the industries in which we operate may adversely impact our business, financial condition and results of operations.

Our operations and the industry we serve, including our customers, are subject to extensive regulation by governmental, regulatory and industry authorities and by federal, state, local and foreign agencies. These organizations establish rules and regulations for the railcar industry, including construction specifications and standards for the design and manufacture of railcars; mechanical, maintenance and related standards; and railroad safety. New rules and administrative regulations from these entities could impact our financial results, demand for our products and the economic value of our assets. In addition, if we fail to comply with the requirements and regulations of these entities, we could face sanctions and penalties that could negatively affect our financial results.

The risks of substantial costs and liabilities related to compliance with these laws and regulations are an inherent part of our business. Despite our intention to comply with these laws and regulations, we cannot guarantee that we will be able to do so 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. These laws and regulations are complex, change frequently and may become more stringent over time, which could impact our business, financial condition and results of operations.

In North America regulatory changes, along with prevailing market conditions, could materially affect new tank railcar manufacturing and retrofitting activities industry-wide, including negative impacts to customer demand for our products and services. In North America additional laws and regulations have been proposed or adopted that will potentially have a significant impact on railroad operations, including the implementation of positive train control (PTC) requirements. PTC is a collision avoidance technology intended to override engineer controlled locomotives and stop certain types of train accidents. While certain of these legal and regulatory changes could result in increased levels of railcar repair or refurbishment work and/or new tank car manufacturing activity, if we are unable to manage to adapt our business successfully to changing regulations, our business and results of operations could be adversely affected.

In Europe, changes to the process for obtaining regulatory approval for the operation of new or modified railcars may make it more difficult for us to deliver products to our customers in a timely manner. Effective in June of 2019, issuance of railway vehicle authorizations will be centralized with the European Union Agency for Railways, rather than being the responsibility of railway safety authorities in each European Union member country. This change may result in delays of several months for obtaining required regulatory approvals, when compared to the current system, which may have an adverse effect on our business and results of operations.

An adverse outcome in any pending or future litigation could negatively impact our business and results of operations.

We are a defendant in several pending cases in various jurisdictions. If we are unsuccessful in resolving these claims, our business and results of operations could be adversely affected. In addition, future claims that may arise relating to any pending or new matters, whether brought against us or initiated by us against third parties, could distract management's attention from business operations and increase our legal and related costs, which could also negatively impact our business and results of operations.

Table of Contents***Risks related to potential misconduct by employees may adversely impact us.***

Our employees may engage in misconduct 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 employees belong to labor unions and strikes or work stoppages could adversely affect our operations.

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. Union organizers are actively working to organize employees at some of our other facilities. 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. In addition, we could face higher labor costs in the future as a result of severance or other charges associated with lay-offs, shutdowns or reductions in the size and scope of our operations or due to the difficulties of restarting our operations that have been temporarily suspended.

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. Our stock price ranged from a low of \$41.95 per share to a high of \$60.90 per share for the year ended August 31, 2018 and a low of \$28.95 per share to a high of \$51.25 per share for the year ended August 31, 2017. 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 and the following:

- quarter-to-quarter variations in our operating results;
- the depth and liquidity of the market for our common stock;
- shortfalls in revenue or earnings from levels expected by securities analysts and investors, including the level of our backlog and number of orders received during the period;
- changes in securities analysts' estimates of our future performance;
- shareholder activism;
- dissemination of false or misleading statements through the use of social and other media to discredit us, disparage our products or to harm our reputation;
- any developments that materially impact investors' or customers' perceptions of our business prospects;
- dilution resulting from our sale of additional shares of common stock or from the conversion of convertible notes;
- changes in governmental regulation;
- significant railcar industry announcements or developments;
- the introduction of new products or technologies by us or our competitors;
- actual or anticipated variations in our or our competitors' quarterly or annual financial results;

the general health and outlook of our industry;
general financial and other market conditions; and
domestic and international economic conditions.

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In addition, public stock markets have experienced, and may in the future experience, extreme price and trading volume volatility. This volatility has significantly affected the market prices of securities of many companies for reasons frequently unrelated to, or that disproportionately impact, the operating performance of these companies and may adversely affect the price of our common stock. These broad market fluctuations may adversely affect the market price of our common stock in the future.

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. Any reduction in our ability to raise equity capital in the future may force us to reallocate funds from other planned uses and could have a significant negative effect on our business plans and operations.

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.

Our product and service warranties could expose us to potentially 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 or claims for which the cost of repairing the defective part is highly disproportionate to the original cost of the part. 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.

Many of our products are 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.

Our financial performance and market value could cause future write-downs of goodwill or intangibles 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

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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, 2018, we had \$51.1 million of goodwill in our Wheels, Repair & Parts segment and \$27.1 million in our Manufacturing 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.

The conversion of our outstanding convertible notes could result in substantial dilution to our current stockholders.

We have the option to settle outstanding convertible notes in cash, although if we opt not to or do not have the ability to, the conversion of some or all of our convertible notes may dilute the ownership interests of existing stockholders. 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.

We are a holding company with no independent operations. Our ability to meet our obligations depends upon the performance of our subsidiaries and our joint ventures and their ability to make distributions to us.

As a holding company, we are dependent on the earnings and cash flows of, and dividends, distributions, loans or advances from, our subsidiaries and joint ventures to generate the funds necessary to meet certain of our obligations including the payment of principal, of premium, if any, and interest on debt obligations. Any payment of dividends, distributions, loans or advances to us by our subsidiaries could be subject to statutory restrictions on dividends or repatriation of earnings under applicable local law and monetary transfer restrictions in the jurisdictions in which our subsidiaries operate. In addition, many of our subsidiaries and our joint ventures are parties to credit facilities that contain restrictions on the timing and amount of any payment of dividends, distributions, loans or advances that our subsidiaries may make to us. Under certain circumstances, some or all of our subsidiaries may be prohibited from making any such payments.

Our governing documents, the indentures governing our 2024 Convertible Notes, and Oregon law contain certain provisions that could prevent or make more difficult an attempt to acquire us.

Our Articles of Incorporation and Bylaws, as currently in effect, contain certain provisions that may have anti-takeover effects, including:

- a classified Board of Directors, with each class containing as nearly as possible one-third of the total number of members of the Board of Directors and the members of each class serving for staggered three-year terms;
- a vote of at least 55% of our voting securities to amend, repeal or adopt an inconsistent provision of certain provisions of our Articles of Incorporation;
- no less than 120 days advance notice with respect to nominations of directors or other matters to be voted on by stockholders other than by or at the direction of the Board of Directors;
- removal of directors only for cause;
- the calling of special meetings of stockholders only by the president, a majority of the Board of Directors or the holders of not less than 25% of all votes entitled to be cast on the matters to be considered at such meeting;
- the issuance of preferred stock by our board without further action by the shareholders; and
- the availability under the Articles of Series A participating preferred stock that may be issuable.

The provisions discussed above could have anti-takeover effects because they may delay, defer or prevent an unsolicited acquisition proposal that some, or a majority, of our stockholders might believe to be in their best interests

or in which stockholders might receive a premium for their common stock over the then-prevailing market price.

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The Oregon Control Share Act and business combination law could limit parties who acquire a significant amount of voting shares from exercising control over us for specific periods of time. These acts could lengthen the period for a proxy contest or for a stockholder to vote their shares to elect the majority of our Board and change management. Additionally, the indentures governing our 2024 Convertible Notes provide for the acceleration, at the lenders option, of all outstanding principal and interest owed on the notes upon a change of control of our company. The rights afforded to our creditors under these indentures could increase the cost of any potential acquisition of our company and have a resulting chilling effect on interest in acquiring our company.

These restrictions and provisions could have the effect of dissuading other stockholders or third parties from contesting director elections or attempting certain transactions with us, including, without limitation, acquisitions, which could cause investors to view our securities as less attractive investments and reduce the market price of our common stock and the notes.

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.

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 and Europe and our non-U.S. businesses conduct their operations in local currencies and other regional 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 have indebtedness, which could have negative consequences to our business or results of operations.

As of August 31, 2018, our total consolidated indebtedness was approximately \$469.7 million (excluding \$26.6 million of debt discount and \$6.9 million of debt issuance costs). As of August 31, 2018, approximately \$179.9 million (excluding \$0.5 million of debt issuance costs) of our consolidated indebtedness was secured. Our indebtedness consists of convertible notes, a senior secured revolving credit facility and term loans. Our level of indebtedness could have a material adverse effect on our business and make it more difficult for us to satisfy our obligations under our outstanding indebtedness and the notes. As a result of our debt and debt service obligations, we face increased risks regarding, among other things, the following:

- our ability to borrow additional amounts or refinance existing indebtedness in the future for working capital, capital expenditures, acquisitions, debt service requirements, investments, stock repurchases, execution of our growth strategy, or other purposes may be limited or such financing may be more costly;
- our availability of cash flow to fund working capital requirements, capital expenditures, investments, acquisitions or other strategic initiatives and other general corporate purposes because a portion of our cash flow is needed to pay principal and interest on our debt;

our vulnerability to competitive pressures and to general adverse economic or industry conditions, including fluctuations in market interest rates or a downturn in our business;
our being at a competitive disadvantage relative to our competitors that have greater financial resources than us or more flexible capital structures than us;

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our ability to satisfy our financial obligations related to our consolidated indebtedness;
our 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;
our restrictions under the restrictive covenants in our North American senior secured credit facility, our secured term loan, our other credit agreements, and any of the agreements governing our future indebtedness adversely restricting our financial and operating flexibility and subjecting us to other risks; and
the possibility 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.

Despite our current indebtedness levels and the restrictive covenants set forth in the agreements governing our indebtedness, if we, our subsidiaries and our joint ventures are in compliance with the covenants, we, our subsidiaries and our joint ventures may be able to incur substantially more indebtedness, including secured indebtedness, and other obligations and liabilities that do not constitute indebtedness. This could increase the risks associated with our indebtedness. As of August 31, 2018, after giving effect to issued but undrawn letters of credit, we had approximately \$392.6 million of availability under our North American senior secured credit facility (based on our borrowing base as of such date) and approximately \$57.5 million of availability under our European and Mexican joint venture senior secured credit facilities.

We may need to raise additional capital to operate our business and achieve our business objectives, which could result in dilution to investors.

We require substantial working capital to fund our business. If additional funds are raised through the issuance of equity securities, the percentage ownership held by our stockholders will be reduced and these equity securities may have rights, preferences or privileges senior to those of our common stock. We evaluate opportunities to access the capital markets taking into account our financial condition and other relevant considerations. Additional financing may not be available when needed, on terms favorable to us or at all. If adequate funds are not available or are not available on acceptable terms, we may be unable to develop or enhance our business, take advantage of future opportunities or respond to competitive pressures, which would harm our business, financial condition and results of operations.

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 and arise in a variety of situations, has been increasing in publicly traded companies recently. Shareholder activism, including potential proxy contests, could result in substantial costs and divert management's and our Board of Directors' attention and resources from our business. Additionally, such shareholder activism could give rise to perceived uncertainties as to our future, adversely affect our relationships with service providers and make it more difficult to attract and retain qualified personnel. Also, we may be required to incur significant legal fees and other expenses related to activist shareholder matters. Our stock price could be subject to significant fluctuation or otherwise be adversely affected by the events, risks and uncertainties of any shareholder activism.

We are subject to cybersecurity risks and may incur increasing costs in an effort to minimize those risks.

Our business employs systems and websites that allow for the storage and transmission of proprietary or confidential information regarding our customers, employees, job applicants and other parties, including financial information, intellectual property and personal identification information. Security breaches and other disruptions could compromise our information, expose us to liability and harm our reputation and business. The steps we take to deter and mitigate these risks may not be successful. We may not have the resources or technical sophistication to anticipate

or prevent current or rapidly evolving types of cyber-attacks. Attacks may be targeted at us, our customers, or others who have entrusted us with information. Actual or anticipated attacks may cause

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us to incur increasing costs, including costs to deploy additional personnel and protection technologies, train employees, and engage third-party experts or consultants. Advances in computer capabilities, or other technological developments may result in the technology and security measures used by us to protect transaction or other data being breached or compromised. In addition, data and security breaches can also occur as a result of non-technical issues, including intentional or inadvertent breach by our employees or by persons with whom we have commercial relationships. Any compromise or breach of our security could result in a violation of applicable privacy and other laws, legal and financial exposure, negative impacts on our customers' willingness to transact business with us and a loss of confidence in our security measures, which could have an adverse effect on our results of operations and our reputation.

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.

If we are unable to protect our intellectual property and prevent its improper use by third parties 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.

The protection of our intellectual property is important to our business. We rely on a combination of trademarks, copyrights, patents and trade secrets to protect our intellectual property. However, these protections might be inadequate. Our pending or future trademark, copyright and patent applications might not be approved or, if allowed, might not be sufficiently broad. 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 costs and harm our reputation. Such claims and proceedings can also distract and divert our management and key personnel from other tasks important to the success of our business. In addition, intellectual property litigation or claims could force us to cease selling or using products that incorporate the asserted intellectual property, which would adversely affect our revenues, or cause us to pay substantial damages for past use of the asserted intellectual property or to pay substantial fees to obtain a license from the holder of the asserted intellectual property, which license may not be available on reasonable terms, if at all. In the event of an adverse determination in an intellectual property suit or proceeding, or our failure to license essential technology or redesign our products so as not to infringe third party intellectual property rights, our sales could be harmed and our costs could increase, which could materially adversely affect our business, financial condition and results of operations.

We could be liable for physical damage, business interruption or product liability claims that exceed our insurance coverage.

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.

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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.

We could be unable to procure adequate insurance on a cost-effective basis in the future.

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.

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. 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.

Fires, natural disasters, severe weather conditions or public health crises could disrupt our business and result in loss of revenue or higher expenses.

Any serious disruption at any of our facilities due to fire, hurricane, earthquake, flood, other severe weather events or any other natural disaster, or an epidemic or other public health crisis, or a panic reaction to a perceived health risk, 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 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.

Unusual weather conditions may reduce demand for our wheel-related parts and repair services.

Performing railcar wheel repair and replacing railcar wheels represents a portion of our business. 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. In addition, 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.

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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. Potential opportunities could include greater demand for certain types of railcars, while potential challenges could include decreased demand for certain types of railcars or other products and higher energy costs. 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.

Repercussions from terrorist activities or armed conflict could harm our business.

Terrorist activities, anti-terrorist efforts, and other armed conflict involving the U.S. or its interests abroad may adversely affect the U.S. and global economies, potentially preventing us from meeting our financial and other obligations. In particular, the negative impacts of these events may affect the industries in which we operate. This could result in delays in or cancellations of the purchase of our products or shortages in raw materials, parts, or components. Any of these occurrences could have a material adverse impact on our financial results.

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 judgment is required 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), 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.

Some of our customers place orders for our products in reliance on their ability to utilize tax benefits or tax credits.

There is no assurance that tax authorities will reauthorize, modify, or otherwise not allow the expiration of such tax benefits, tax credits, or reimbursement policies, and in cases where such subsidies and policies are materially modified to reduce the available benefit, credit, or reimbursement or are otherwise allowed to expire, the demand for our products could decrease, thereby creating the potential for a material adverse effect on our financial condition or

results of operations.

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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.

Table of Contents**Item 1B. UNRESOLVED STAFF COMMENTS**

None.

Item 2. PROPERTIES

We operate at the following primary facilities as of August 31, 2018:

Description	Location	Status
Manufacturing Segment		
Operating facilities:	Portland, Oregon	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:	Colleyville, Texas	Leased
Wheels, Repair & Parts Segment		
Operating facilities:	25 locations in the U.S.	Leased 14 locations
		Owned 9 locations
		Customer premises 2 locations
Administrative offices:	Birmingham, Alabama	Leased
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 22 to Consolidated Financial Statements, Part II, Item 8 of this Form 10-K.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

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Executive Officers of the Registrant

Current information regarding our executive officers is presented below.

William A. Furman, 74, 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.

Martin R. Baker, 62, 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, 62, is Executive Vice President of the Company and President of Global 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, 56, 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, 55, is Senior Vice President, Chief Accounting Officer and Acting Chief Financial Officer. Mr. Downes has served as Senior Vice President and Chief Accounting Officer since joining the Company in March 2013, and as Acting Chief Financial Officer since August 2018.

Anne T. Manning, 55, is Vice President and Corporate Controller, a position she has held since November 2007. Ms. Manning has served in various financial management positions for the Company since 1995.

Mark J. Rittenbaum, 61, 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, 51, is Executive Vice President and Chief Operating Officer. Ms. Tekorius has served as Executive Vice President since April 2017 and was promoted to Chief Operating Officer in August 2018. Ms. Tekorius has served in various management positions for the Company since 1995, most recently as Executive Vice President and Chief Financial Officer.

Executive officers are designated by the Board of Directors. There are no family relationships among any of the executive officers of the Company.

Table of Contents**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 348 holders of record of common stock as of October 19, 2018. The following table shows the reported high and low sales prices of our common stock on the New York Stock Exchange and dividends declared for the fiscal periods indicated.

	High	Low	Dividends Declared
2018			
Fourth quarter	\$ 60.90	\$ 45.70	\$ 0.25
Third quarter	\$ 52.65	\$ 43.05	\$ 0.25
Second quarter	\$ 54.45	\$ 44.75	\$ 0.23
First quarter	\$ 52.75	\$ 41.95	\$ 0.23
2017			
Fourth quarter	\$ 51.25	\$ 41.45	\$ 0.22
Third quarter	\$ 49.00	\$ 40.45	\$ 0.22
Second quarter	\$ 49.50	\$ 39.00	\$ 0.21
First quarter	\$ 39.05	\$ 28.95	\$ 0.21
Dividends			

Any determination to pay cash dividends to our shareholders is at the discretion of our Board of Directors and will depend upon our financial condition, operating results, capital requirements, customary debt covenant restrictions, legal requirements and other factors that our Board of Directors deems relevant. As a result, there is no assurance as to the payment of future dividends.

Issuer Purchases of Equity Securities

Since October 2013, the Board of Directors has authorized the Company to repurchase in aggregate up to \$225 million of the Company's common stock. The program may be modified, suspended or discontinued at any time without prior notice and currently has an expiration date of March 31, 2019. 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 share repurchase program does not obligate the Company to acquire any specific number of shares in any period.

There were no shares repurchased under the share repurchase program during the quarter ended August 31, 2018.

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased	Approximate Dollar Value of
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		(Including Commissions)	as Part of Publically Announced Plans or Programs	Shares that May Yet Be Purchased Under the Plans or Programs
June 1, 2018	June 30, 2018			\$ 87,989,491
July 1, 2018	July 31, 2018			\$ 87,989,491
August 1, 2018	August 31, 2018			\$ 87,989,491

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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, 2013 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, 2018, the end of the Company's 2018 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 8/31/13 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, 2018.

Table of Contents**Item 6. SELECTED FINANCIAL DATA**

<i>(In thousands, except unit and per share data)</i>	YEARS ENDED AUGUST 31,				
	2018	2017	2016	2015	2014
Statement of Operations Data					
Revenue:					
Manufacturing	\$ 2,044,586	\$ 1,725,188	\$ 2,096,331	\$ 2,136,051	\$ 1,624,916
Wheels, Repair & Parts	347,023	312,679	322,395	371,237	495,627
Leasing & Services	127,855	131,297	260,798	97,990	83,419
	\$ 2,519,464	\$ 2,169,164	\$ 2,679,524	\$ 2,605,278	\$ 2,203,962
Earnings from operations	\$ 252,985	\$ 260,432	\$ 408,552	\$ 386,892	\$ 239,520
Net earnings attributable to Greenbrier	\$ 151,781 ⁽¹⁾	\$ 116,067 ⁽¹⁾	\$ 183,213	\$ 192,832	\$ 111,919 ⁽²⁾
Basic earnings per common share attributable to Greenbrier:	\$ 4.92	\$ 3.97	\$ 6.28	\$ 6.85	\$ 3.97
Diluted earnings per common share attributable to Greenbrier:	\$ 4.68	\$ 3.65	\$ 5.73	\$ 5.93	\$ 3.44
Weighted average common shares outstanding:					
Basic	30,857	29,225	29,156	28,151	28,164
Diluted	32,835	32,562	32,468	33,328	34,209
Cash dividends paid per share	\$ 0.96	\$ 0.86	\$ 0.81	\$ 0.60	\$ 0.15
Balance Sheet Data					
Total assets	\$ 2,465,464	\$ 2,397,705	\$ 1,835,774	\$ 1,787,452	\$ 1,511,199
Revolving notes and notes payable, net	\$ 463,930	\$ 562,552	\$ 301,853	\$ 374,258	\$ 452,203
Total equity	\$ 1,384,215	\$ 1,178,893	\$ 1,016,827	\$ 863,489	\$ 573,721
Other Operating Data					
New railcar units delivered	19,000	15,700	20,300	21,100	16,200
New railcar backlog (units)	27,400	28,600	27,500	41,300	31,500
New railcar backlog	\$ 2,740,000	\$ 2,800,000	\$ 3,190,000	\$ 4,710,000	\$ 3,330,000
Lease fleet:					
Units managed	357,000	336,000	264,000	260,000	238,000
Units owned	8,100	8,300	8,900	9,300	8,600
Cash Flow Data					
Capital expenditures:					
Manufacturing	\$ 59,707	\$ 54,973	\$ 51,294	\$ 84,354	\$ 55,979
Wheels, Repair & Parts	5,204	3,129	10,190	9,381	8,774
Leasing & Services	111,937	27,963	77,529	12,254	5,474
	\$ 176,848	\$ 86,065	\$ 139,013	\$ 105,989	\$ 70,227
Proceeds from sale of assets	\$ 153,224	\$ 24,149	\$ 103,715	\$ 5,295	\$ 54,235

Depreciation and amortization:					
Manufacturing	\$ 44,225	\$ 33,807	\$ 27,137	\$ 20,668	\$ 15,341
Wheels, Repair & Parts	10,771	11,143	11,971	11,748	12,582
Leasing & Services	19,360	20,179	24,237	12,740	12,499
	\$ 74,356	\$ 65,129	\$ 63,345	\$ 45,156	\$ 40,422

- (1) 2018 and 2017 includes the Company's portion of non-cash goodwill impairment charges taken by 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.
- (2) 2014 includes a non-cash gain on contribution to joint venture of \$13.6 million net of tax and a restructuring charge of \$1.0 million net of tax. The gain related to the Company contributing its repair operations to GBW.

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

Executive Summary

We operate in three reportable segments: Manufacturing; Wheels, Repair & Parts; and Leasing & Services. Prior to August 20, 2018, we operated in four reportable segments: Manufacturing; Wheels & Parts; Leasing & Services; and GBW Joint Venture. On August 20, 2018 we entered into an agreement with our joint venture partner to discontinue the GBW railcar repair joint venture, which resulted in 12 repair shops returned to us.

Our 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 railroad industry in North America. The Leasing & Services segment owns approximately 8,100 railcars (6,300 railcars held as equipment on operating leases, 1,600 held as leased railcars for syndication and 200 held as finished goods inventory) and provides management services for approximately 357,000 railcars for railroads, shippers, carriers, institutional investors and other leasing and transportation companies in North America as of August 31, 2018. Through unconsolidated affiliates we produce rail and industrial castings, tank heads and other components and we have an ownership stake in a railcar manufacturer in Brazil and a lease financing warehouse.

Our total manufacturing backlog of railcar units as of August 31, 2018 was approximately 27,400 units with an estimated value of \$2.74 billion, of which 21,200 units are for direct sales and 6,200 units are for lease to third parties. Approximately 3% of backlog units and 2% of the estimated value as of August 31, 2018 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 the dollar amount of backlog. Marine backlog as of August 31, 2018 was \$61 million compared to \$42 million as of August 31, 2017.

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.

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 that also provides maintenance services for railcars and manufactures bogies and spare parts for railcars in that region. The amount paid to acquire our ownership stake in Rayvag was not material to our consolidated financial statements.

Table of Contents**Overview**

Revenue, cost of revenue, margin and operating profit presented below, include amounts from external parties and exclude intersegment activity that is eliminated in consolidation.

<i>(In thousands)</i>	2018	2017	2016
Revenue:			
Manufacturing	\$ 2,044,586	\$ 1,725,188	\$ 2,096,331
Wheels, Repair & Parts	347,023	312,679	322,395
Leasing & Services	127,855	131,297	260,798
	2,519,464	2,169,164	2,679,524
Cost of revenue:			
Manufacturing	1,727,407	1,373,967	1,630,554
Wheels, Repair & Parts	318,330	288,336	293,751
Leasing & Services	64,672	85,562	203,782
	2,110,409	1,747,865	2,128,087
Margin:			
Manufacturing	317,179	351,221	465,777
Wheels, Repair & Parts	28,693	24,343	28,644
Leasing & Services	63,183	45,735	57,016
	409,055	421,299	551,437
Selling and administrative	200,439	170,607	158,681
Net gain on disposition of equipment	(44,369)	(9,740)	(15,796)
	252,985	260,432	408,552
Interest and foreign exchange	29,368	24,192	13,502
Earnings before income tax and earnings (loss) from unconsolidated affiliates	223,617	236,240	395,050
Income tax expense	(32,893)	(64,014)	(112,322)
Earnings before earnings (loss) from unconsolidated affiliates	190,724	172,226	282,728
Earnings (loss) from unconsolidated affiliates	(18,661)	(11,764)	2,096
Net earnings	172,063	160,462	284,824
Net earnings attributable to noncontrolling interest	(20,282)	(44,395)	(101,611)
Net earnings attributable to Greenbrier	\$ 151,781	\$ 116,067	\$ 183,213
Diluted earnings per common share	\$ 4.68	\$ 3.65	\$ 5.73

Performance for our segments is evaluated based on 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>	2018	2017	2016
Operating profit:			
Manufacturing	\$ 240,901	\$ 295,334	\$ 415,094
Wheels, Repair & Parts	16,731	14,984	19,948
Leasing & Services	88,481	31,904	51,723
Corporate	(93,128)	(81,790)	(78,213)
	\$ 252,985	\$ 260,432	\$ 408,552

Table of Contents**Consolidated Results**

<i>(In thousands)</i>	Years ended August 31,			2018 vs 2017		2017 vs 2016	
	2018	2017	2016	Increase (Decrease)	Change %	Increase (Decrease)	Change %
Revenue	\$ 2,519,464	\$ 2,169,164	\$ 2,679,524	\$ 350,300	16.1%	\$ (510,360)	(19.0%)
Cost of revenue	\$ 2,110,409	\$ 1,747,865	\$ 2,128,087	\$ 362,544	20.7%	\$ (380,222)	(17.9%)
Margin (%)	16.2%	19.4%	20.6%	(3.2%)	*	(1.2%)	*
Net earnings attributable to Greenbrier	\$ 151,781	\$ 116,067	\$ 183,213	\$ 35,714	30.8%	\$ (67,146)	(36.6%)

* Not meaningful

Through our integrated business model, we provide a broad range of 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 16.1% increase in revenue for the year ended August 31, 2018 as compared to the year ended August 31, 2017 was primarily due to an 18.5% increase in Manufacturing revenue. The increase in Manufacturing revenue was primarily due to a 21.0% increase in the volume of railcar deliveries and a change in product mix. The increase was also attributed to an 11.0% increase in Wheels, Repair & Parts revenue primarily as a result of higher wheel set and component volumes due to an increase in demand and an increase in scrap metal pricing. The 19.0% decrease in revenue for the year ended August 31, 2017 as compared to the year ended August 31, 2016 was primarily due to a 17.7% decrease in Manufacturing revenue. The decrease in Manufacturing revenue was primarily due to a 22.7% decrease in the volume of railcar deliveries which was partially offset by a higher average selling price. The decrease was also due to a 49.7% decrease in Leasing & Services revenue, primarily the result of a decrease in the sale of railcars which we had purchased from third parties with the intent to resell them.

The 20.7% increase in cost of revenue for the year ended August 31, 2018 as compared to the year ended August 31, 2017 was primarily due to a 25.7% increase in Manufacturing cost of revenue. The increase in Manufacturing cost of revenue was primarily due to a 21.0% increase in the volume of railcar deliveries and a change in product mix. The increase was also attributed to a 10.4% increase in Wheels, Repair & Parts cost of revenue primarily due to higher wheel set and component costs associated with increased volumes. The overall increase in cost of revenue was partially offset by a 24.4% decrease in Leasing & Services cost of revenue primarily due to a decline in the volume of railcars sold that we purchased from third parties, lower maintenance and transportation costs and fewer railcars on operating leases as we rebalance our lease portfolio. The 17.9% decrease in cost of revenue for the year ended August 31, 2017 as compared to the year ended August 31, 2016 was primarily due to a 15.7% decrease in Manufacturing cost of revenue. The decrease in Manufacturing cost of revenue was primarily due to a 22.7% decrease in the volume of railcar deliveries which was partially offset by a product mix which had a higher average labor and material content. The decrease was also due to a 58.0% decrease in Leasing & Services cost of revenue primarily due to a decrease in costs associated with a decline in the volume of railcars sold that we purchased from third parties.

Margin as a percentage of revenue was 16.2% for the year ended August 31, 2018 and 19.4% for the year ended August 31, 2017. The overall margin as a percentage of revenue was negatively impacted by a decrease in Manufacturing margin to 15.5% from 20.4% primarily attributed to a change in product mix. This was partially offset by an increase in Leasing & Services margin to 49.4% from 34.8%. Leasing & Services margin percentage in 2018 benefited from fewer sales of railcars that we purchased from third parties which have lower margin percentages,

lower maintenance costs, a higher average volume of rent-producing leased railcars for syndication and lower transportation costs. Margin as a percentage of revenue was 19.4% for the year ended August 31, 2017 and 20.6% for the year ended August 31, 2016. The overall margin as a percentage of revenue was negatively impacted by a decrease in Manufacturing margin to 20.4% from 22.2% primarily due to a change in product mix and a reduction in the volume of railcar deliveries. In addition, the overall margin as a percentage of revenue was negatively impacted by a decrease in Wheels, Repair & Parts margin to 7.8% from 8.9%, primarily due to lower wheel set and component volumes. The overall margin as a percentage of revenue was positively impacted by an

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increase in Leasing & Services margin to 34.8% from 21.9% which was primarily a result of a decrease in the syndication, or sale, of railcars that we purchased from third parties which have lower margin percentages.

The \$35.7 million increase in net earnings attributable to Greenbrier for the year ended August 31, 2018 as compared to the year ended August 31, 2017 was primarily attributable to a higher Net gain on disposition of equipment and a reduction in the tax rate due to the Tax Cuts and Jobs Act (Tax Act). See Note 18 Income Taxes for further discussion of the impact of the Tax Act. The \$67.1 million decrease in net earnings for the year ended August 31, 2017 as compared to the year ended August 31, 2016 was primarily attributable to a decrease in margin, net of tax, due to lower railcar deliveries, which was partially offset by lower Net earnings attributable to noncontrolling interest in 2017 as a result of our Mexican railcar manufacturing 50/50 joint venture operating at lower volumes and margins.

Manufacturing Segment

<i>(In thousands)</i>	Years ended August 31,			2018 vs 2017		2017 vs 2016	
	2018	2017	2016	Increase (Decrease)	% Change	Increase (Decrease)	% Change
Revenue	\$ 2,044,586	\$ 1,725,188	\$ 2,096,331	\$ 319,398	18.5%	\$ (371,143)	(17.7%)
Cost of revenue	\$ 1,727,407	\$ 1,373,967	\$ 1,630,554	\$ 353,440	25.7%	\$ (256,587)	(15.7%)
Margin (%)	15.5%	20.4%	22.2%	(4.9%)	*	(1.8%)	*
Operating profit (\$)	\$ 240,901	\$ 295,334	\$ 415,094	\$ (54,433)	(18.4%)	\$ (119,760)	(28.9%)
Operating profit (%)	11.8%	17.1%	19.8%	(5.3%)	*	(2.7%)	*
Deliveries	19,000	15,700	20,300	3,300	21.0%	(4,600)	(22.7%)

* Not meaningful

As of June 1, 2017, the Manufacturing segment included the results of Greenbrier-Astra Rail which is consolidated for financial reporting purposes. The results of Greenbrier-Astra Rail were included for 12 months in 2018, but only for three months in 2017 which partially contributed to the increase in Manufacturing revenue and cost of revenue in 2018 compared to 2017.

Manufacturing revenue increased \$319.4 million or 18.5% in 2018 compared to 2017. The increase in revenue was primarily attributed to a 21.0% increase in the volume of railcar deliveries and a change in product mix. Manufacturing revenue decreased \$371.1 million or 17.7% in 2017 compared to 2016 primarily due to a 22.7% decrease in the volume of railcar deliveries and a change in product mix.

Manufacturing cost of revenue increased \$353.4 million or 25.7% in 2018 compared to 2017. The increase in cost of revenue was primarily attributed to a 21.0% increase in the volume of railcar deliveries and a change in product mix. Manufacturing cost of revenue decreased \$256.6 million or 15.7% in 2017 compared to 2016 due to a decrease of 22.7% in the volume of railcar deliveries and a change in product mix.

Manufacturing margin as a percentage of revenue decreased 4.9% in 2018 compared to 2017 primarily due to a change in product mix. Manufacturing margin as a percentage of revenue decreased 1.8% in 2017 compared to 2016 primarily due to a change in product mix partially offset by customer order renegotiation fees received during the year ended August 31, 2017.

Manufacturing operating profit decreased \$54.4 million or 18.4% in 2018 compared to 2017 primarily attributed to a lower margin percentage from a change in product mix and increased costs associated with expanded international

operations. This was partially offset by an increase in the volume of railcar deliveries. Manufacturing operating profit decreased \$119.8 million or 28.9% in 2017 compared to 2016 primarily attributed to a decrease in margin due to lower railcar deliveries.

Table of Contents**Wheels, Repair & Parts Segment**

<i>(In thousands)</i>	Years ended August 31,			2018 vs 2017		2017 vs 2016	
	2018	2017	2016	Increase (Decrease)	Change %	Increase (Decrease)	Change %
Revenue	\$ 347,023	\$ 312,679	\$ 322,395	\$ 34,344	11.0%	\$ (9,716)	(3.0%)
Cost of revenue	\$ 318,330	\$ 288,336	\$ 293,751	\$ 29,994	10.4%	\$ (5,415)	(1.8%)
Margin (%)	8.3%	7.8%	8.9%	0.5%	*	(1.1%)	*
Operating profit (\$)	\$ 16,731	\$ 14,984	\$ 19,948	\$ 1,747	11.7%	\$ (4,964)	(24.9%)
Operating profit (%)	4.8%	4.8%	6.2%	0.0%	*	(1.4%)	*

* Not meaningful

On August 20, 2018 we entered into an agreement with our joint venture partner to discontinue the GBW railcar repair joint venture, which resulted in 12 repair shops returned to us. Beginning on August 20, 2018, the results of operations from our repair shops are included in the Wheels, Repair & Parts segment as these repair operations are now consolidated for financial reporting purposes.

Wheels, Repair & Parts revenue increased \$34.3 million or 11.0% in 2018 compared to 2017 primarily as a result of higher wheel set and component volumes due to an increase in demand and an increase in scrap metal pricing. Revenue decreased \$9.7 million or 3.0% in 2017 compared to 2016 primarily as a result of lower wheel set and component volumes due to a decrease in demand partially offset by an increase in parts volume.

Wheels, Repair & Parts cost of revenue increased \$30.0 million or 10.4% in 2018 compared to 2017 primarily due to higher wheel set and component costs associated with increased volumes. Cost of revenue decreased \$5.4 million or 1.8% in 2017 compared to 2016 primarily due to lower wheel set and component costs associated with decreased volumes.

Wheels, Repair & Parts margin as a percentage of revenue increased 0.5% in 2018 compared to 2017 due to efficiencies from operating at higher wheel set and component volumes and an increase in scrap metal pricing. This was partially offset by a less favorable parts product mix. Margin as a percentage of revenue decreased 1.1% in 2017 compared to 2016 due to lower wheel set and component volumes. This was partially offset by a more favorable parts product mix and an increase in scrap metal pricing.

Wheels, Repair & Parts operating profit increased \$1.7 million or 11.7% in 2018 compared to 2017 primarily attributable to higher margins due to an increase in wheel set and component volumes and an increase in efficiencies. Operating profit decreased \$5.0 million or 24.9% in 2017 compared to 2016 primarily attributable to a decrease in margin due to a decrease in wheel set and component volumes.

Leasing & Services Segment

<i>(In thousands)</i>	Years ended August 31,			2018 vs 2017		2017 vs 2016	
	2018	2017	2016	Increase (Decrease)	Change %	Increase (Decrease)	Change %

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Revenue	\$ 127,855	\$ 131,297	\$ 260,798	\$ (3,442)	(2.6%)	\$ (129,501)	(49.7%)
Cost of revenue	\$ 64,672	\$ 85,562	\$ 203,782	\$ (20,890)	(24.4%)	\$ (118,220)	(58.0%)
Margin (%)	49.4%	34.8%	21.9%	14.6%	*	12.9%	*
Operating profit (\$)	\$ 88,481	\$ 31,904	\$ 51,723	\$ 56,577	177.3%	\$ (19,819)	(38.3%)
Operating profit (%)	69.2%	24.3%	19.8%	44.9%	*	4.5%	*

* Not meaningful

The Leasing & Services segment primarily generates revenue from leasing railcars from its lease fleet and providing various management services. We also earn revenue from rent-producing leased railcars for syndication, which are held short term and classified as Leased railcars for syndication on our Consolidated Balance Sheet. From time to time, railcars are purchased from third parties with the intent to resell them. The gross proceeds from the sale of these railcars are recorded in revenue and the cost of purchasing these railcars are recorded in cost of revenue.

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Leasing & Services revenue decreased \$3.4 million or 2.6% in 2018 compared to 2017. The change in revenue was primarily attributed to a decrease in the sale of railcars which we had purchased from third parties with the intent to resell them and a decline in leasing revenue due to fewer railcars on operating leases as we rebalance our lease portfolio. This was partially offset by higher management services revenue from new service agreements and a higher average volume of rent-producing leased railcars for syndication. Leasing & Services revenue decreased \$129.5 million or 49.7% in 2017 compared to 2016 primarily as the result of a \$116.5 million decrease in the sale of railcars which we had purchased from third parties with the intent to resell them. The decrease in revenue was also due to lower average volume of rent-producing leased railcars held for syndication.

Leasing & Services cost of revenue decreased \$20.9 million or 24.4% in 2018 compared to 2017 primarily due to a decline in the volume of railcars sold that we purchased from third parties, lower maintenance and transportation costs and fewer railcars on operating leases as we rebalance our lease portfolio. Leasing & Services cost of revenue decreased \$118.2 million or 58.0% in 2017 compared to 2016 primarily due to a decrease in costs associated with a decline in the volume of railcars sold that we purchased from third parties. This was partially offset by higher transportation and storage costs.

Leasing & Services margin as a percentage of revenue increased 14.6% in 2018 compared to 2017. Margin percentage for 2018 benefited from fewer sales of railcars that we purchased from third parties which have lower margin percentages, lower maintenance costs, a higher average volume of rent-producing leased railcars for syndication and lower transportation costs. Leasing & Services margin as a percentage of revenue increased 12.9% in 2017 compared to 2016 primarily as a result of a benefit from fewer sales of railcars that we purchased from third parties which have lower margin percentages which was partially offset by higher transportation and storage costs.

Leasing & Services operating profit increased \$56.6 million or 177.3% in 2018 compared to 2017 primarily attributed to a \$40.8 million increase in net gain on disposition of equipment and an \$17.4 million increase in margin. The net gain on disposition of equipment for 2018 related to higher volumes of equipment sales as we rebalance our lease portfolio. Leasing & Services operating profit decreased \$19.8 million or 38.3% in 2017 compared to 2016 primarily attributed to a \$11.3 million decrease in margin and a \$7.7 million decrease in net gain on disposition of equipment.

The percentage of owned units on lease was 94.4% at August 31, 2018, 92.1% at August 31, 2017 and 91.0% at August 31, 2016.

GBW Joint Venture Segment

To reflect our 50% share of GBW's results, we recorded a net loss of \$15.9 million and \$9.7 million for the years ended August 31, 2018 and 2017, respectively, and earnings of \$3.2 million for the year ended August 31, 2016.

The losses for the years ended August 31, 2018 and 2017 primarily related to non-cash goodwill impairment losses recorded by GBW. GBW recorded a pre-tax goodwill impairment loss of \$26.4 million in 2018 and \$11.2 million in 2017. As we account 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 and \$3.5 million after-tax in 2017 which were included as part of Earnings (loss) from unconsolidated affiliates on our Consolidated Statement of Income.

On August 20, 2018 we entered into an agreement with our joint venture partner to discontinue the GBW railcar repair joint venture, which resulted in 12 repair shops returned to us. Beginning on August 20, 2018, GBW Joint Venture was no longer considered a reportable segment.

Selling and Administrative

<i>(In thousands)</i>	Years ended August 31,			2018 vs 2017		2017 vs 2016	
	2018	2017	2016	Increase (Decrease)	% Change	Increase (Decrease)	% Change
Selling and Administrative	\$ 200,439	\$ 170,607	\$ 158,681	\$ 29,832	17.5%	\$ 11,926	7.5%

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Selling and administrative expense was \$200.4 million or 8.0% of revenue for the year ended August 31, 2018, \$170.6 million or 7.9% of revenue for the year ended August 31, 2017 and \$158.7 million or 5.9% of revenue for the year ended August 31, 2016.

The \$29.8 million increase in 2018 compared to 2017 was primarily attributed to a \$10.1 million increase in professional fees, consulting and related costs associated with strategic business development, litigation and IT initiatives, \$8.8 million from the addition of Astra Rail's selling and administrative costs and a \$6.0 million increase in employee costs.

The \$11.9 million increase in 2017 compared to 2016 was primarily attributed to a \$9.2 million increase in legal and consulting costs primarily associated with strategic business development, litigation and IT initiatives. The increase was also attributed to the addition of Astra Rail's selling and administrative costs which totaled \$2.6 million since its acquisition on June 1, 2017 and a \$0.8 million increase in research and development costs primarily related to our European manufacturing operations. This was partially offset by a \$1.7 million decrease in the revenue-based fees paid to our joint venture partner in Mexico.

Net Gain on Disposition of Equipment

Net gain on disposition of equipment was \$44.4 million, \$9.7 million and \$15.8 million for the years ended August 31, 2018, 2017 and 2016, 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 take advantage of market conditions and to manage risk and liquidity and disposition of property, plant and equipment.

The net gain on disposition of equipment in 2018 was higher than for the prior year primarily due to greater volumes of equipment sales as we rebalance our lease portfolio. The gain for the year ended August 31, 2017 primarily consisted of \$5.2 million in insurance proceeds received in excess of net book value on assets destroyed in fires at two of our manufacturing facilities and \$4.5 million in gains realized on the disposition of leased assets and property, plant and equipment. The gain for the year ended August 31, 2016 primarily consisted of \$12.0 million in gains realized on the disposition of leased assets and property, plant and equipment and \$3.5 million in insurance proceeds received in excess of net book value on assets destroyed in fires at a manufacturing facility and a Wheels, Repair & Parts facility.

Interest and Foreign Exchange

Interest and foreign exchange expense was composed of the following:

<i>(In thousands)</i>	Years ended August 31,			Increase (decrease)	
	2018	2017	2016	2018 vs 2017	2017 vs 2016
Interest and foreign exchange:					
Interest and other expense	\$ 30,946	\$ 23,519	\$ 17,268	\$ 7,427	\$ 6,251
Foreign exchange loss (gain)	(1,578)	673	(3,766)	(2,251)	4,439
	\$ 29,368	\$ 24,192	\$ 13,502	\$ 5,176	\$ 10,690

Interest and foreign exchange increased \$5.2 million in 2018 from 2017 primarily due to interest expense associated with our \$275 million convertible senior notes due 2024 issued in February 2017 and additional interest expense due

to the addition of Astra Rail. This was partially offset by the maturity of the \$119 million convertible senior notes in April 2018 and higher foreign exchange gain in 2018. The change in foreign exchange loss (gain) was primarily attributed to the change in the Mexican Peso relative to the U.S. Dollar and the change in the Polish Zloty exchange rates relative to the Euro.

Interest and foreign exchange increased \$10.7 million in 2017 from 2016 primarily attributed to interest expense associated with our \$275 million convertible senior notes due 2024 which we issued in February 2017. In addition, the increase in interest and foreign exchange was attributed to a \$0.7 million foreign exchange loss in

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2017 compared to \$3.8 million gain in 2016. The change in foreign exchange loss (gain) was primarily attributed to the change in the Mexican Peso and Polish Zloty exchange rates relative to the U.S. Dollar and the change in the Polish Zloty exchange rates relative to the Euro.

Income Tax

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%. In 2017 our income tax expense was \$64.0 million on \$236.2 million of pre-tax earnings for an effective tax rate of 27.1%. In 2016 our income tax expense was \$112.3 million on \$395.0 million of pre-tax earnings for an effective tax rate of 28.4%.

The reduction in the 2018 tax rate from that of earlier years 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. Deferred income taxes were remeasured as a result of the new statutory rate. This resulted in a tax benefit of \$33.6 million during 2018. As a result of our fiscal year end, our blended statutory rate is 25.7% for 2018. See Note 18 Income Taxes for further discussion of the impact of the Tax Act.

The tax rate can fluctuate year-to-year due to 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 because the joint venture is predominantly 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

Earnings (loss) from unconsolidated affiliates primarily included our share of after-tax results from the GBW joint venture, our Brazil operations which include a castings joint venture and a railcar manufacturing joint venture, our lease financing warehouse investment, our North American castings joint venture and our tank head joint venture.

Earnings (loss) from unconsolidated affiliates was a loss of \$18.7 million and \$11.8 million for the years ended August 31, 2018 and 2017, respectively, and earnings of \$2.1 million for the year ended August 31, 2016. Earnings (loss) from unconsolidated affiliates decreased \$6.9 million in 2018 and \$13.9 million in 2017 primarily due to goodwill impairment losses recorded by GBW. GBW recorded a pre-tax goodwill impairment loss of \$26.4 million in 2018 and \$11.2 million in 2017. As we account 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 and \$3.5 million after-tax in 2017, which were included as part of Earnings (loss) from unconsolidated affiliates on our Consolidated Statement of Income.

Net Earnings Attributable to Noncontrolling Interest

The years ended August 31, 2018, 2017 and 2016 include Net earnings attributable to noncontrolling interest of \$20.3 million, \$44.4 million and \$101.6 million, respectively, which primarily represents our joint venture partner's share in the results of operations of our Mexican railcar manufacturing joint venture, adjusted for intercompany sales and our European partner's share of the results of Greenbrier-Astra Rail.

The decrease of \$24.1 million in 2018 compared to 2017 is primarily a result of a decrease in earnings due to lower margins at our Mexican railcar manufacturing joint venture and a loss at our Greenbrier-Astra Rail operations in

Europe. The decrease of \$57.2 million in 2017 compared to 2016 is primarily a result of a decrease in the volume of railcar deliveries and lower margins at our Mexican railcar manufacturing joint venture.

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<i>(In thousands)</i>	Years Ended August 31,		
	2018	2017	2016
Net cash provided by operating activities	\$ 103,341	\$ 285,604	\$ 337,170
Net cash used in investing activities	(80,219)	(113,738)	(55,708)
Net cash provided by (used in) financing activities	(89,267)	204,422	(227,415)
Effect of exchange rate changes	(14,666)	12,499	(4,298)
Net increase (decrease) in cash and cash equivalents	\$ (80,811)	\$ 388,787	\$ 49,749

We have been financed through cash generated from operations and borrowings. At August 31, 2018 cash and cash equivalents was \$530.7 million, a decrease of \$80.8 million from \$611.5 million at the prior year end.

The decrease in cash provided by operating activities in 2018 compared to 2017 was primarily due to a net change in working capital, a change in cash flows associated with leased railcars for syndication, a change in deferred revenue, an increase in net gain on disposition of equipment and a change in deferred income taxes as a result of the Tax Act. The decrease in cash provided by operating activities in 2017 compared to 2016 was primarily due to lower earnings and a net change in working capital.

Cash used in investing activities primarily related to capital expenditures net of proceeds from the sale of assets. The change in cash used in investing activities in 2018 compared to 2017 was primarily attributable to higher proceeds from the sale of assets partially offset by an increase in capital expenditures. The change in cash used in investing activities in 2017 compared to 2016 was primarily attributable to lower proceeds from the sale of assets, investment related to the Greenbrier-Astra Rail transaction and an increase in investment in and advances to unconsolidated affiliates, primarily related to our Brazil operations. This was partially offset by lower capital expenditures for the year ended August 31, 2017 compared to 2016 and less restricted cash compared to the prior year.

Capital expenditures totaled \$176.8 million, \$86.1 million and \$139.0 million for the years ended August 31, 2018, 2017 and 2016, respectively. Manufacturing capital expenditures were approximately \$59.7 million, \$55.0 million and \$51.3 million for the years ended August 31, 2018, 2017 and 2016, respectively. Capital expenditures for Manufacturing are expected to be approximately \$75 million in 2019 and primarily relate to enhancements of our existing manufacturing facilities. Wheels, Repair & Parts capital expenditures were approximately \$5.2 million, \$3.1 million and \$10.2 million for the years ended August 31, 2018, 2017 and 2016, respectively. Capital expenditures for Wheels, Repair & Parts are expected to be approximately \$15 million in 2019 for enhancements of our existing facilities, including our repair shops. Leasing & Services and corporate capital expenditures were approximately \$111.9 million, \$28.0 million and \$77.5 million for the years ended August 31, 2018, 2017 and 2016, respectively. Leasing & Services and corporate capital expenditures for 2019 are expected to be approximately \$90 million. Proceeds from sales of leased railcar equipment are expected to be approximately \$120 million for 2019. The asset additions and dispositions for Leasing & Services in 2018 primarily relate to higher volumes of equipment purchases and sales as we rebalance our lease portfolio. Assets from our lease fleet are periodically sold in the normal course of business in order to take advantage of market conditions and to manage risk and liquidity.

Proceeds from the sale of assets, which primarily related to sales of railcars from our lease fleet within Leasing & Services, were approximately \$153.2 million, \$24.1 million and \$103.7 million for the years ended August 31, 2018, 2017 and 2016, respectively. These proceeds included approximately \$7.7 million and \$44.1 million of equipment

sold pursuant to sale leaseback transactions for the years ended August 31, 2017 and 2016, respectively. The gain resulting from the sale leaseback transactions was deferred and is being recognized over the lease term in Net gain on disposition of equipment. In addition, proceeds from the sale of assets for the years ended August 31, 2017 and 2016 included \$6.2 million and \$3.8 million, respectively, of insurance proceeds associated with our Manufacturing segment in 2017 and 2016 and Wheels, Repair & Parts segment in 2016.

The change in cash provided by (used in) financing activities in 2018 compared to 2017 was primarily attributed to a decrease in the proceeds of debt, net of repayments and a change in the net activities with joint venture

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partners. The change in cash provided by (used in) financing activities in 2017 compared to 2016 was primarily attributed to proceeds from the issuance of convertible senior notes, a reduction in cash distribution to our joint venture partner and reduced share repurchases.

A quarterly dividend of \$0.25 per share was declared on October 24, 2018.

The Board of Directors has authorized our company to repurchase in aggregate up to \$225 million of our common stock. We did not repurchase any shares during the year ended August 31, 2018. As of August 31, 2018, we had cumulatively repurchased 3,206,226 shares for approximately \$137.0 million since October 2013 and had \$88.0 million available under the share repurchase program with an expiration date of March 31, 2019.

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 2.99%.

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.

In February 2017, we issued \$275 million of convertible senior notes due 2024. The notes are senior unsecured obligations and rank equally with other senior unsecured debt. The notes bear interest at an annual rate of 2.875% payable semiannually in arrears on February 1 and August 1 of each year, commencing August 1, 2017. The notes will mature on February 1, 2024, unless earlier repurchased or converted in accordance with their terms.

Senior secured credit facilities, consisting of three components, aggregated to \$635.3 million as of August 31, 2018. We had an aggregate of \$450.1 million available to draw down under committed credit facilities as of August 31, 2018. This amount consists of \$392.6 million available on the North American credit facility, \$7.5 million on the European credit facilities and \$50.0 million on the Mexican railcar manufacturing joint venture credit facilities.

As of August 31, 2018, a \$550.0 million revolving line of credit, maturing October 2020, secured by substantially all of our assets in the U.S. not otherwise pledged as security for term loans, was available to provide working capital and interim financing of equipment, principally for the U.S. and Mexican operations. Advances under this facility bear interest at LIBOR plus 1.75% or Prime plus 0.75% depending on the type of borrowing. Available borrowings under the credit facility are generally based on defined levels of inventory, receivables, property, plant and equipment and leased equipment, as well as total debt to consolidated capitalization and fixed charges coverage ratios. In September 2018, this revolving line of credit was renewed on terms similar to the existing facility and increased to \$600.0 million with a new maturity date of September 2023. In addition, advances under this renewed facility bear interest at LIBOR plus 1.50% or Prime plus 0.50% depending on the type of borrowing.

As of August 31, 2018, lines of credit totaling \$35.3 million secured by certain of our European assets, with variable rates that range from Warsaw Interbank Offered Rate (WIBOR) plus 1.2% to WIBOR plus 1.3% and Euro Interbank Offered Rate (EURIBOR) plus 1.1%, were available for working capital needs of our European manufacturing operation. European credit facilities are continually being renewed. Currently, these European credit facilities have maturities that range from December 2018 through June 2019.

As of August 31, 2018, our Mexican railcar manufacturing joint venture had two lines of credit totaling \$50.0 million. The first line of credit provides up to \$30.0 million and is fully guaranteed by us and our joint venture partner. Advances under this facility bear interest at LIBOR plus 2.0%. The Mexican railcar manufacturing joint venture will be able to draw against this facility through January 2019. The second line of credit provides up to \$20.0 million, of which we and our joint venture partner have each guaranteed 50%. Advances under this facility bear interest at LIBOR plus 2.0%. The Mexican railcar manufacturing joint venture will be able to draw amounts available under this facility through July 2019.

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As of August 31, 2018, outstanding commitments under the senior secured credit facilities consisted of \$72.2 million in letters of credit under our North American credit facility and \$27.7 million outstanding under our European 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 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 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, 2018, 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, 2018, we had a \$10.0 million note receivable from Amsted-Maxion Cruzeiro, our unconsolidated Brazilian castings and components manufacturer and a \$7.2 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 year.

The following table shows our estimated future contractual cash obligations as of August 31, 2018:

<i>(In thousands)</i>	Years Ending August 31,						
	Total	2019	2020	2021	2022	2023	Thereafter
Notes payable	\$ 469,721	\$ 26,775	\$ 167,086	\$ 413	\$ 413	\$ 34	\$ 275,000
Interest ⁽¹⁾	58,078	14,850	11,604	7,906	7,906	7,906	7,906

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Railcar leases	18,341	6,287	4,839	1,821	1,792	1,792	1,810
Operating leases	17,744	6,048	4,437	3,286	1,915	1,862	196
Revolving notes	27,725	27,725					
Other	148	129	19				
	\$ 591,757	\$ 81,814	\$ 187,985	\$ 13,426	\$ 12,026	\$ 11,594	\$ 284,912

⁽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, 2018, we are unable to estimate the period of cash settlement with the respective taxing authority.

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Therefore, approximately \$1.8 million in uncertain tax positions, including interest, have been excluded from the contractual table above. See Note 18 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 - For financial reporting purposes, income tax expense is estimated based on amounts anticipated to be reported on tax return filings. Those anticipated amounts may change from when the financial statements are prepared to when the tax returns are filed. Further, because tax filings are subject to review by taxing authorities, there is risk that a position taken in preparation of a tax return may be challenged by a taxing authority. If a challenge is successful, differences in tax expense or between current and deferred tax items may arise in future periods. Any material effect of such differences would be reflected in the financial statements when management considers the effect more likely than not of occurring and the amount reasonably estimable. Valuation allowances reduce deferred tax assets to amounts more likely than not that will be realized based on information available when the financial statements are prepared. This information may include estimates of future income and other assumptions that are inherently uncertain.

Maintenance obligations - We are responsible for maintenance on a portion of the managed and owned lease fleet under the terms of maintenance obligations defined in the underlying lease or management agreement. The estimated maintenance liability is based on maintenance histories for each type and age of railcar. These estimates involve judgment as to the future costs of repairs and the types and timing of repairs required over the lease term. As we cannot predict with certainty the prices, timing and volume of maintenance needed in the future on railcars under long-term leases, this estimate is uncertain and could be materially different from maintenance requirements. The liability is periodically reviewed and updated based on maintenance trends and known future repair or refurbishment requirements. These adjustments could be material due to the inherent uncertainty in predicting future maintenance requirements.

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

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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 - Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collectability is reasonably assured.

Railcars are generally manufactured, repaired or refurbished and wheels and parts produced under firm orders from third parties. Revenue is recognized when these products or services are completed, accepted by an unaffiliated customer and contractual contingencies removed. Certain leases are operated under car hire arrangements whereby revenue is earned based on utilization, car hire rates and terms specified in the lease agreement. Car hire revenue is reported from a third party source two months in arrears; however, such revenue is accrued in the month earned based on estimates of use from historical activity and is adjusted to actual when reported to us. These estimates are inherently uncertain as they involve judgment as to the estimated use of each railcar. Adjustments to actual have historically not been significant. Revenue from the construction of marine barges is either recognized on the percentage of completion method during the construction period or on the completed contract method based on the terms of the contract. Under the percentage of completion method, judgment is used to determine a definitive threshold against which progress towards completion can be measured to determine timing of revenue recognition. Under the percentage of completion method, revenue is recognized based on the progress toward contract completion measured by actual costs incurred to date in relation to the estimate of total expected costs. Under the completed contract method, revenue is not recognized until the project has been fully completed.

We will periodically sell railcars with attached leases to financial investors. Revenue and cost of revenue associated with railcars that the Company has manufactured are recognized in Manufacturing once sold. Revenue and cost of revenue associated with railcars which were obtained from a third party with the intent to resell them which are subsequently sold are recognized in Leasing & Services. In addition we will often perform management or maintenance services at market rates for these railcars. Pursuant to the guidance in Accounting Standards Codification (ASC) 840-20-40, we evaluate the terms of any remarketing agreements and any contractual provisions that represent retained risk and the level of retained risk based on those provisions. We determine whether the level of retained risk exceeds 10% of the individual fair value of the railcars with leases attached that are delivered. If retained risk exceeded 10%, the transaction would not be recognized as a sale until such time as the retained risk declined to 10% or less. For any contracts with multiple elements (i.e. railcars, maintenance, management services, etc.) we allocate revenue among the deliverables primarily based upon objective and reliable evidence of the fair value of each element in the arrangement. If objective and reliable evidence of fair value of any element is not available, we will use the element's estimated selling price for purposes of allocating the total arrangement consideration among the elements.

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 forecast of 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 fair value would be recognized in the current period. These estimates are based on the best information available at the time of the impairment and could be materially different if circumstances change. If the forecast of undiscounted future cash flows exceeds the carrying amount of the assets it would indicate that the assets were not impaired.

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. Goodwill and indefinite-lived intangible assets are also tested more frequently if changes in circumstances or the

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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. Among other things, our assumptions used in the valuation of goodwill include growth of revenue and margins, market multiples, discount rates and increased cash flows over time. If actual operating results were to differ from these assumptions, it may result in an impairment of our goodwill.

The provisions of ASC 350, *Intangibles - Goodwill and Other*, require that we perform an annual impairment test on goodwill. We compare 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. 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. Our goodwill balance was \$78.2 million as of August 31, 2018 of which \$51.1 million related to our Wheels, Repair & Parts segment and \$27.1 million related to our Manufacturing segment. We performed our annual goodwill impairment test during the third quarter of 2018 and we concluded that goodwill was not impaired.

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.

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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 forecast foreign currency sales and expenses. At August 31, 2018 exchange rates, forward exchange contracts for the purchase of Polish Zlotys and the sale of Euros; the purchase of Mexican Pesos and the sale of U.S. Dollars; and for the purchase of US Dollars and the sale of Saudi Riyals and Euros aggregated to \$145.4 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 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, 2018, net assets of foreign subsidiaries aggregated \$187.7 million and a 10% strengthening of the U.S. Dollar relative to the foreign currencies would result in a decrease in equity of \$18.8 million, or 1.4% 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 \$85.1 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, 2018, 74% of our outstanding debt had fixed rates and 26% had variable rates. At August 31, 2018, a uniform 10% increase in variable interest rates would result in approximately \$0.4 million of additional annual interest expense.

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders

The Greenbrier Companies, Inc. and subsidiaries:

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, 2018 and 2017, 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, 2018, 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, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three year period ended August 31, 2018, 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, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated October 26, 2018 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

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.

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

/s/ KPMG LLP

Portland, Oregon

October 26, 2018

Table of Contents**Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**
Consolidated Balance Sheets

AS OF AUGUST 31,

<i>(In thousands)</i>	2018	2017
Assets		
Cash and cash equivalents	\$ 530,655	\$ 611,466
Restricted cash	8,819	8,892
Accounts receivable, net	348,406	279,964
Inventories	432,314	400,127
Leased railcars for syndication	130,926	91,272
Equipment on operating leases, net	322,855	315,941
Property, plant and equipment, net	457,196	428,021
Investment in unconsolidated affiliates	61,414	108,255
Intangibles and other assets, net	94,668	85,177
Goodwill	78,211	68,590
	\$ 2,465,464	\$ 2,397,705
Liabilities and Equity		
Revolving notes	\$ 27,725	\$ 4,324
Accounts payable and accrued liabilities	449,857	415,061
Deferred income taxes	31,740	75,791
Deferred revenue	105,954	129,260
Notes payable, net	436,205	558,228
Commitments and contingencies (Notes 21 & 22)		
Contingently redeemable noncontrolling interest	29,768	36,148
Equity:		
Greenbrier		
Preferred stock without par value; 25,000 shares authorized; none outstanding		
Common stock without par value; 50,000 shares authorized; 32,191 and 28,503 outstanding at August 31, 2018 and 2017		
Additional paid-in capital	442,569	315,306
Retained earnings	830,898	709,103
Accumulated other comprehensive loss	(23,366)	(6,279)
Total equity Greenbrier	1,250,101	1,018,130
Noncontrolling interest	134,114	160,763
Total equity	1,384,215	1,178,893
	\$ 2,465,464	\$ 2,397,705

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

Table of Contents**Consolidated Statements of Income**

YEARS ENDED AUGUST 31,

<i>(In thousands, except per share amounts)</i>	2018	2017	2016
Revenue			
Manufacturing	\$ 2,044,586	\$ 1,725,188	\$ 2,096,331
Wheels, Repair & Parts	347,023	312,679	322,395
Leasing & Services	127,855	131,297	260,798
	2,519,464	2,169,164	2,679,524
Cost of revenue			
Manufacturing	1,727,407	1,373,967	1,630,554
Wheels, Repair & Parts	318,330	288,336	293,751
Leasing & Services	64,672	85,562	203,782
	2,110,409	1,747,865	2,128,087
Margin	409,055	421,299	551,437
Selling and administrative	200,439	170,607	158,681
Net gain on disposition of equipment	(44,369)	(9,740)	(15,796)
Earnings from operations	252,985	260,432	408,552
Other costs			
Interest and foreign exchange	29,368	24,192	13,502
Earnings before income tax and earnings (loss) from unconsolidated affiliates	223,617	236,240	395,050
Income tax expense	(32,893)	(64,014)	(112,322)
Earnings before earnings (loss) from unconsolidated affiliates	190,724	172,226	282,728
Earnings (loss) from unconsolidated affiliates	(18,661)	(11,764)	2,096
Net earnings	172,063	160,462	284,824
Net earnings attributable to noncontrolling interest	(20,282)	(44,395)	(101,611)
Net earnings attributable to Greenbrier	\$ 151,781	\$ 116,067	\$ 183,213
Basic earnings per common share	\$ 4.92	\$ 3.97	\$ 6.28
Diluted earnings per common share	\$ 4.68	\$ 3.65	\$ 5.73
Weighted average common shares:			
Basic	30,857	29,225	29,156
Diluted	32,835	32,562	32,468
Dividends declared per common share	\$ 0.96	\$ 0.86	\$ 0.81

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

The Greenbrier Companies 2018 Annual Report

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Table of Contents**Consolidated Statements of Comprehensive Income**

YEARS ENDED AUGUST 31,

<i>(In thousands)</i>	2018	2017	2016
Net earnings	\$ 172,063	\$ 160,462	\$ 284,824
Other comprehensive income			
Translation adjustment	(16,159)	15,488	(2,204)
Reclassification of derivative financial instruments recognized in net earnings ¹	(415)	3,729	2,544
Unrealized gain (loss) on derivative financial instruments ²	(197)	1,944	(5,842)
Other (net of tax effect)	(335)	(665)	(84)
	(17,106)	20,496	(5,586)
Comprehensive income	154,957	180,958	279,238
Comprehensive income attributable to noncontrolling interest	(20,263)	(44,417)	(101,573)
Comprehensive income attributable to Greenbrier	\$ 134,694	\$ 136,541	\$ 177,665

¹ Net of tax of effect of \$3 thousand, \$1.0 million and \$1.2 million for the years ended August 31, 2018, 2017 and 2016, respectively.

² Net of tax of effect of \$0.1 million, \$0.8 million and \$2.1 million for the years ended August 31, 2018, 2017 and 2016, respectively.

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

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Consolidated Statements of Equity

(In thousands)	Attributable to Greenbrier				Total Attributable to Greenbrier	Noncontrolling Interest	Total Equity	Contingently Redeemable Noncontrolling Interest
	Common Stock Shares	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss				
Balance September 1, 2015	28,907	\$ 295,444	\$ 458,599	\$ (21,205)	\$ 732,838	\$ 130,651	\$ 863,489	\$
Net earnings			183,213		183,213	101,611	284,824	
Other comprehensive loss, net				(5,548)	(5,548)	(38)	(5,586)	
Noncontrolling interest adjustments						526	526	
Purchase of noncontrolling interest						(1,195)	(1,195)	
Joint venture partner distribution declared						(94,439)	(94,439)	
Investment by joint venture partner						5,400	5,400	
Restricted stock awards (net of cancellations)	353	6,055			6,055		6,055	
Unamortized restricted stock		(11,555)			(11,555)		(11,555)	
Restricted stock amortization		22,502			22,502		22,502	
Excess tax benefit from restricted stock awards		2,813			2,813		2,813	
Dividends			(23,634)		(23,634)		(23,634)	
Repurchase of stock	(1,055)	(32,373)			(32,373)		(32,373)	
Balance August 31, 2016	28,205	\$ 282,886	\$ 618,178	\$ (26,753)	\$ 874,311	\$ 142,516	\$ 1,016,827	\$
Net earnings (excluding			116,067		116,067	46,535	162,602	(2,140)

contingently redeemable noncontrolling interest)								
Other comprehensive income, net			20,474		20,474		22	20,496
Noncontrolling interest adjustments							(677)	(677)
Joint venture partner distribution declared							(28,027)	(28,027)
Acquisition of minority interest							394	394
Contingently redeemable noncontrolling interest								38,288
Restricted stock awards (net of cancellations)	298	5,520			5,520			5,520
Unamortized restricted stock		(10,734)			(10,734)			(10,734)
Restricted stock amortization		19,826			19,826			19,826
Tax deficiency from restricted stock awards		(2,339)			(2,339)			(2,339)
Dividends			(25,142)		(25,142)			(25,142)
2024 Convertible Senior Notes equity component, net of tax		20,818			20,818			20,818
2024 Convertible Senior Notes issuance costs equity component, net of tax		(671)			(671)			(671)
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 income, net				(17,087)	(17,087)	(19)	(17,106)	
Noncontrolling interest						2,864	2,864	

adjustments								
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
Dividends			(29,986)	(29,986)				(29,986)
Conversion of 2018 Convertible 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

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

Table of Contents**Consolidated Statements of Cash Flows**

YEARS ENDED AUGUST 31,

<i>(In thousands)</i>	2018	2017	2016
Cash flows from operating activities:			
Net earnings	\$ 172,063	\$ 160,462	\$ 284,824
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Deferred income taxes	(40,496)	4,377	(8,935)
Depreciation and amortization	74,356	65,129	63,345
Net gain on disposition of equipment	(44,369)	(9,740)	(15,796)
Stock based compensation expense	29,314	26,427	24,037
Accretion of debt discount	4,171	2,340	
Noncontrolling interest adjustments	2,864	(677)	526
Other	1,688	(845)	560
Decrease (increase) in assets:			
Accounts receivable, net	(83,551)	(25,272)	(32,051)
Inventories	(26,592)	(2,787)	53,711
Leased railcars for syndication	(54,023)	41,015	19,154
Other	34,115	17,558	(16,989)
Increase (decrease) in liabilities:			
Accounts payable and accrued liabilities	54,032	(25,422)	(85,928)
Deferred revenue	(20,231)	33,039	50,712
Net cash provided by operating activities	103,341	285,604	337,170
Cash flows from investing activities:			
Acquisitions, net of cash acquired	(34,874)	(27,127)	
Proceeds from sales of assets	153,224	24,149	103,715
Capital expenditures	(176,848)	(86,065)	(139,013)
Decrease (increase) in restricted cash	73	15,387	(15,410)
Investment in and advances to unconsolidated affiliates	(26,455)	(40,632)	(12,855)
Cash distribution from joint ventures	4,661	550	7,855
Net cash used in investing activities	(80,219)	(113,738)	(55,708)
Cash flows from financing activities:			
Net changes in revolving notes with maturities of 90 days or less	23,401	4,324	(49,000)
Repayments of revolving notes with maturities longer than 90 days			(1,888)
Proceeds from issuance of notes payable	13,771	276,093	
Repayments of notes payable	(22,269)	(8,297)	(22,299)
Debt issuance costs		(9,082)	(4,161)
Repurchase of stock			(33,498)
Dividends	(29,914)	(24,890)	(23,303)
Cash distribution to joint venture partner	(73,033)	(28,511)	(95,092)

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Investment by joint venture partner	6,500		5,400
Tax payments for net share settlement of restricted stock	(7,723)	(5,215)	(5,500)
Excess tax benefit from restricted stock awards			2,813
Other			(887)
Net cash provided by (used in) financing activities	(89,267)	204,422	(227,415)
Effect of exchange rate changes	(14,666)	12,499	(4,298)
Increase (decrease) in cash and cash equivalents	(80,811)	388,787	49,749
Cash and cash equivalents			
Beginning of period	611,466	222,679	172,930
End of period	\$ 530,655	\$ 611,466	\$ 222,679
Cash paid during the period for:			
Interest	\$ 18,878	\$ 13,962	\$ 12,277
Income taxes, net	\$ 66,423	\$ 45,280	\$ 125,455
Non-cash activity			
Conversion of 2018 Senior Convertible Notes	\$ 118,887	\$	\$
Transfer from Leased railcars for syndication and Inventories to Equipment on operating leases, net	\$ 20,945	\$ 8,668	\$ 73,165
Capital expenditures accrued in Accounts payable and accrued liabilities	\$ 13,534	\$ 16,145	\$ 8,408
Change in Accounts payable and accrued liabilities associated with cash distributions to joint venture partner	\$ 14	\$ 484	\$ 652
Change in Accounts payable and accrued liabilities associated with dividends declared	\$ (72)	\$ (252)	\$ (331)
Change in Accounts payable and accrued liabilities associated with repurchase of stock	\$	\$	\$ 1,125
Transfer of Property, plant and equipment, net to (from) Intangibles and other assets, net	\$	\$ (63)	\$ 588

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

Table of Contents**Notes to Consolidated Financial Statements****Note 1 - Nature of Operations**

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, GBW Joint Venture was no longer considered a reportable segment.

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 railroad industry in North America. The Leasing & Services segment owns approximately 8,100 railcars (6,300 railcars held as equipment on operating leases, 1,600 held as leased railcars for syndication and 200 held as finished goods inventory) and provides management services for approximately 357,000 railcars for railroads, shippers, carriers, institutional investors and other leasing and transportation companies in North America as of August 31, 2018. Through unconsolidated affiliates the Company produces rail and industrial castings, tank heads and other components and has an ownership stake in a railcar manufacturer in Brazil and a lease financing warehouse.

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., primarily in Europe, 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 \$21.5 million, \$5.4 million and \$20.8 million as of August 31, 2018, 2017 and 2016, 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 associated with funds temporarily held in connection with a performance guarantee as part of a 2016 transaction, 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.

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Accounts receivable - Accounts receivable includes receivables from related parties (see Note 17 - Related Party Transactions) and is stated net of allowance for doubtful accounts of \$2.7 million and \$1.8 million as of August 31, 2018 and 2017, respectively.

<i>(In thousands)</i>	As of August 31,		
	2018	2017	2016
Allowance for doubtful accounts			
Balance at beginning of period	\$ 1,768	\$ 2,215	\$ 2,449
Additions, net of reversals	938	370	70
Usage	(54)	(891)	(277)
Currency translation effect	49	74	(27)
Balance at end of period	\$ 2,701	\$ 1,768	\$ 2,215

Inventories - Inventories are valued at the lower of cost or market 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, 2018, Leased railcars for syndication was \$130.9 million compared to \$91.3 million as of August 31, 2017.

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 thirty-five 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 which are accounted for under the equity method of accounting. See Note 7 - Investments in Unconsolidated Affiliates for additional information.

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 are as follows:

	Depreciable Life
Buildings and improvements	10 - 25 years
Machinery and equipment	3 - 15 years
Other	3 - 7 years

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 material changes in events or circumstances arise. The provisions of ASC 350, *Intangibles - Goodwill and Other*, require the Company to perform an annual impairment test on goodwill. The Company compares the fair value of each reporting unit with its carrying value. 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.

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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 and primarily include long-term customer agreements which are amortized over 5 to 20 years. Other assets include revolving note fees and debt acquisition costs 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 was recorded in the years ended August 31, 2018, 2017 and 2016.

Maintenance obligations - The Company is responsible for maintenance on a portion of the managed and owned lease fleet under the terms of maintenance obligations defined in the underlying lease or management agreement. The estimated liability is based on maintenance histories for each type and age of railcar. The liability, included in Accounts payable and accrued liabilities, is reviewed periodically and updated based on maintenance trends and known future repair or refurbishment requirements.

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 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. 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. The Company reevaluates these uncertain tax positions on a quarterly basis. Changes in assumptions 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. Deferred revenue primarily consists of customer prepayments and the unrecognized portion of the \$40 million upfront fee from MUL. The Company also has a 40% interest in the common equity of an entity that buys and sells railcar assets that are leased to third parties. Deferred revenue includes 40% of the revenue and margin of railcars sold to this entity until the railcars are ultimately sold to a third party. The Deferred revenue balance was \$106.0 million and \$129.3 million as of August 31, 2018 and 2017, respectively.

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. 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 (see Note 3 Acquisitions).

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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.

The Company has a joint venture with Summit Railroad Products, Inc. to provide axle services. 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 has the power to direct the activities which most significantly impact the economic performance of the entity. 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.

Net earnings attributable to noncontrolling interest on the Company's Consolidated Statement of Income represents the Company's partner's 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, 2017	\$ 181	\$ (5,366)	\$ (1,094)	\$ (6,279)
Other comprehensive loss before reclassifications	(197)	(16,140)	(335)	(16,672)
Amounts reclassified from accumulated other comprehensive loss	(415)			(415)
Balance, August 31, 2018	\$ (431)	\$ (21,506)	\$ (1,429)	\$ (23,366)

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
	2018	2017	Caption
(Gain) loss on derivative financial instruments:			
Foreign exchange contracts	\$ (716)	\$ 3,644	Revenue and Cost of revenue
Interest rate swap contracts	298	1,057	Interest and foreign exchange
	(418)	4,701	Total before tax
	3	(972)	Tax benefit
	\$ (415)	\$ 3,729	Net of tax

Revenue recognition - Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collectability is reasonably assured.

Railcars are generally manufactured, repaired or refurbished under firm orders from third parties. Revenue is recognized when new, used, refurbished or repaired railcars are completed, accepted by an unaffiliated customer and contractual contingencies removed. Marine revenue is either recognized on the percentage of completion method during the construction period or on the completed contract method based on the terms of the contract. Under the percentage of completion method, revenue is recognized based on the progress toward contract completion measured by actual costs incurred to date in relation to the estimate of total expected costs. Under the completed contract method, revenue is not recognized until the project has been fully completed. Cash payments received prior to meeting revenue recognition criteria are accounted for in Deferred revenue. Operating lease revenue is recognized as earned under the lease terms. Certain leases are operated under car hire arrangements whereby revenue is earned based on utilization, car hire rates and terms specified in the lease agreement.

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The Company sells railcars with attached leases to financial investors. Revenue and cost of revenue associated with railcars that the Company has manufactured are recognized in Manufacturing once sold. 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. In addition the Company will often perform management or maintenance services at market rates for these railcars. The Company evaluates the terms of any remarketing agreements and any contractual provisions that represent retained risk and the level of retained risk based on those provisions. The Company applies a 10% threshold to determine whether the level of retained risk exceeds 10% of the individual fair value of the rail cars delivered. If retained risk exceeded 10%, the transaction would not be recognized as a sale until such time as the retained risk declined to 10% or less. For any contracts with multiple elements (i.e. railcars, maintenance, management services, etc.) the Company allocates revenue among the deliverables primarily based upon objective and reliable evidence of the fair value of each element in the arrangement. If objective and reliable evidence of fair value of any element is not available, the Company will use its estimated selling price for purposes of allocating the total arrangement consideration among the elements.

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,		
	2018	2017	2016
Interest and foreign exchange:			
Interest and other expense	\$ 30,946	\$ 23,519	\$ 17,268
Foreign exchange (gain) loss	(1,578)	673	(3,766)
	\$ 29,368	\$ 24,192	\$ 13,502

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, 2018, 2017 and 2016 were \$6.0 million, \$4.2 million and \$2.7 million, respectively, included in Selling and administrative expenses.

Forward exchange contracts - Foreign operations give rise to risks from changes 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 or 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.

Net earnings per share - Basic earnings per common share (EPS) excludes the potential dilution that would occur if additional shares were issued upon conversion of bonds. Restricted share grants are treated as outstanding when issued and restricted stock units are not treated as outstanding when issued. Restricted share 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 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 2024 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

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approach supplements the first by including the if converted effect of the 2018 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 2024 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 the recipient's eligible retirement date. Awards are expensed upon grant when the recipient's eligible retirement date precedes the grant 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, 2018, 2017 and 2016 was \$29.3 million, \$26.4 million and \$24.0 million, respectively and was recorded in Selling and administrative on the Consolidated Statements of Income.

Restricted stock units and restricted stock are accounted for as equity based awards (see Note 15 Equity). Phantom stock units are accounted for as liability based awards.

The Company began granting phantom stock units during the year ended August 31, 2016. Every phantom stock unit entitles the participant to receive a cash payment equal to the value of a single share of the Company's common stock upon vesting. The holders of unvested phantom stock units are entitled to participate in dividend equivalents.

There were no phantom stock units awarded during the year ended August 31, 2018. During the years ended August 31, 2017 and 2016, the Company awarded 151,634 and 268,161 phantom stock units, respectively, which include performance-based grants. As of August 31, 2018, there were a total of 200,686 phantom stock units associated with unvested performance-based grants. The actual number of phantom stock units that will vest associated with performance-based phantom stock units will vary depending on the Company's performance. Approximately 200,686 additional phantom stock units may be granted if performance-based phantom stock units vest at stretch levels of performance. These additional units are associated with phantom stock unit awards granted during the years ended August 31, 2016 and 2017. The grant date fair value of phantom stock awards was \$6.7 million and \$7.9 million for the years ended August 31, 2017 and 2016, respectively.

Our phantom stock unit grants are considered liability based awards and therefore are re-measured at the end of each reporting period. Compensation expense is recognized through the earlier of the vesting period or the recipient's eligible retirement date. Time-based awards to employees are expensed upon grant when the recipient's eligible retirement date precedes the grant date or during the vesting period if the grantee becomes retirement eligible before the vesting period is complete. Compensation expense related to phantom stock unit grants is 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 years ended August 31, 2018, August 31, 2017 and 2016 was \$12.1 million, \$6.2 million and \$1.5 million, respectively. Unamortized compensation cost related to phantom stock unit grants was \$5.9 million, \$10.9 million and \$7.5 million as of August 31, 2018, 2017 and 2016, respectively.

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, 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.

Initial Adoption of Accounting Policies - In the first quarter of 2018, the Company adopted Accounting Standards Update 2016-09, *Improvements to Employee Share-Based Payment Accounting* (ASU 2016-09). This changes how companies account for certain aspects of share-based payments to employees. Excess tax benefits or deficiencies related to vested awards which were previously recognized in stockholders' equity are now

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recognized in the income statement when awards vest. For the year ended August 31, 2018, the impact of adopting this new guidance was immaterial. Prior to adopting the updated standard, excess tax benefits were reported as financing activities and are now reported as operating activities in the statement of cash flows. In addition, cash paid by an employer when directly withholding shares for tax withholding purposes were reported as operating activities and are now classified as financing activities.

Prospective Accounting Changes - In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update 2014-09, *Revenue from Contracts with Customers* (ASU 2014-09), providing a common revenue recognition model under U.S. GAAP. Under ASU 2014-09, an entity recognizes 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. It also requires additional disclosures to sufficiently describe the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The FASB issued a one year deferral and the new standard is effective for fiscal years and interim periods within those years beginning after December 15, 2017. The Company plans to adopt this new standard beginning September 1, 2018 using the modified retrospective method. The Company has substantially completed our evaluation of the requirements of the new standard and is implementing slight modifications to our affected processes and controls in the first quarter of fiscal 2019. The majority of our revenue recognition timing will remain unchanged, while we expect certain minor changes related to maintenance and repair services. Costs incurred while fulfilling maintenance contracts will now be recognized as incurred while the related revenue will continue to be recognized over time. Additionally, our repair service revenue, while previously recognized upon completion of a repair order, will now be recognized as costs are incurred. As a result of these changes, the Company expects to record an increase to retained earnings of approximately \$5.4 million and a reclassification from accrued maintenance to contract liabilities of \$2.4 million as of September 1, 2018.

In February 2016, the FASB issued Accounting Standards Update 2016-02, *Leases* (ASU 2016-02). 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. ASU 2016-02 requires most leases to be recognized on the balance sheet. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all leases. 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 current model, but updated to align with certain changes to the lessee model and the new revenue recognition standard. The ASU will require both quantitative and qualitative disclosures regarding key information about leasing arrangements. The standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition, and provides for certain practical expedients. Transition will include a cumulative effect adjustment to the opening balance of retained earnings in the period of adoption. The Company plans to adopt this guidance beginning September 1, 2019. The Company is currently evaluating the impact of this standard on its consolidated financial statements and disclosures.

In December 2016, the FASB issued Accounting Standards Update 2016-18, *Restricted Cash* (ASU 2016-18). This update requires additional disclosure and that the Statement of Cash Flow explain the change during the period in the total cash, cash equivalents and amounts generally described as restricted cash. Therefore, amounts generally described as restricted cash should be included with cash & cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the Statement of Cash Flows. The new guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017 with early adoption permitted. The Company plans to adopt this guidance beginning September 1, 2018.

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 hedge non-financial and financial risk components, reduces complexity in fair value hedges of interest rate risk, eliminates the requirement to separately measure and report

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hedge ineffectiveness, as well as eases certain hedge effectiveness assessment requirements. The new guidance is effective for reporting periods beginning after December 15, 2018, with early adoption permitted. The Company plans to adopt this guidance beginning September 1, 2019. The Company is currently evaluating the impact of this standard on its consolidated financial statements and disclosures.

Note 3 - Acquisitions**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 were returned to the Company. Additionally, the dissolution agreement provides that certain agreements entered into in connection with the original creation of GBW in 2014 will be terminated as of the transaction date, including the leases of real and personal property, service agreements, and certain employment-related agreements. GBW is expected to exist as a formal legal entity at least through December 31, 2018 to complete its cessation of activities in an orderly manner.

Beginning on August 20, 2018, the repair shops and their activity are being reported in the Company's consolidated financial statements as part of the Wheels, Repair & Parts segment.

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 \$56.8 million. Additionally, the Company removed the book value of its remaining equity method investment in, and note receivable due from, the joint venture. The accumulated deficit reflected in GBW's balance sheet as of August 31, 2018 will be funded by its parents. The Company has included this assumed liability within the purchase price allocation in the table below. The impact of the acquisition was not material to the Company's results of operations, therefore pro forma financial information has not been included. See Note 17 - Related Party Transactions for additional information.

The preliminary allocation of the purchase price based on the fair value of the net assets acquired was as follows as of August 31, 2018:

(in thousands)

Cash and cash equivalents	\$ 5,000
Accounts receivable, net	12,230
Inventories	18,106
Property, plant and equipment, net	16,748
Intangibles and other assets, net	9,200
Goodwill	7,863
Total assets acquired	69,147
Accounts payable and accrued liabilities	12,394
Total liabilities assumed	12,394
Net assets acquired	\$ 56,753

As of August 31, 2018, certain liabilities in the table above are estimates and the Company will adjust the purchase price allocation as they are settled.

Greenbrier Astra Rail

On June 1, 2017, Greenbrier and Astra Holding GmbH (Astra) contributed its European operations to a newly formed company, Greenbrier-Astra Rail (GAR), a Europe-based freight railcar manufacturing, engineering and repair business. As consideration for an approximate 75% controlling interest, Greenbrier agreed to pay Astra 30 million at closing, an additional 30 million which was paid on June 1, 2018 and issue an approximate 25% noncontrolling interest in the new company. The total net assets acquired of \$115.8 million includes \$38.3 million representing the fair value of the noncontrolling interest at the acquisition date.

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Astra 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. Due to Astra's redemption right under the put option, the noncontrolling interest has been classified as a Contingently redeemable noncontrolling interest in the mezzanine section of the Consolidated Balance Sheets. 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. There were no such adjustments during the year ended August 31, 2018.

For the year ended August 31, 2018, the European operations contributed by Astra generated revenues of \$136.8 million and a loss from operations of \$11.5 million, which are reported in the Company's consolidated financial statements as part of the Manufacturing segment. The impact of the acquisition was not material to the Company's consolidated results of operations for the twelve-month period ended August 31, 2017, therefore pro forma financial information has not been included.

The purchase price of the net assets acquired from Astra was allocated as follows:

(in thousands)

Cash and cash equivalents	\$ 6,562
Accounts receivable, net	10,984
Inventories	30,454
Property, plant and equipment, net	75,296
Intangibles and other assets, net	17,300
Goodwill	25,746
Total assets acquired	166,342
Accounts payable and accrued liabilities	17,879
Deferred income taxes	7,292
Deferred revenue	964
Notes payable, net	24,382
Total liabilities assumed	50,517
Net assets acquired	\$ 115,825

On August 2, 2018, GAR entered in to an agreement with Rayvag Vagon Sanavi ve Ticaret A.S. (Rayvag) to take an approximately 68% ownership stake in Rayvag. Rayvag is a railcar manufacturer and provider of railcar repair and parts services based in Adana, Turkey. The amount paid to acquire the 68% ownership stake in Rayvag and the impact of the acquisition were not material to the Company's consolidated balance sheet and results of operations, therefore pro forma financial information has not been included.

Note 4 - Inventories

<i>(In thousands)</i>	As of August 31,
	2018 2017

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Manufacturing supplies and raw materials	\$ 278,726	\$ 222,080
Work-in-process	105,021	86,794
Finished goods	54,181	95,389
Excess and obsolete adjustment	(5,614)	(4,136)
	\$ 432,314	\$ 400,127

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<i>(In thousands)</i>	As of August 31,		
	2018	2017	2016
Excess and obsolete adjustment			
Balance at beginning of period	\$ 4,136	\$ 3,257	\$ 2,679
Charge to cost of revenue	4,023	2,781	2,422
Disposition of inventory	(2,455)	(2,003)	(1,792)
Currency translation effect	(90)	101	(52)
Balance at end of period	\$ 5,614	\$ 4,136	\$ 3,257

Note 5 - Equipment on Operating Leases, net

Equipment on operating leases is reported net of accumulated depreciation of \$64.9 million and \$91.1 million as of August 31, 2018 and 2017, respectively. Depreciation expense was \$11.2 million, \$12.1 million and \$16.6 million as of August 31, 2018, 2017 and 2016, respectively. In addition, certain railcar equipment leased-in by the Company on operating leases (see Note 21 - Lease Commitments) is subleased to customers under non-cancelable operating leases. Aggregate minimum future amounts receivable under all non-cancelable operating leases and subleases are as follows:

<i>(In thousands)</i>	
Year ending August 31,	
2019	\$ 26,246
2020	19,898
2021	13,311
2022	11,311
2023	8,562
Thereafter	14,733
	\$ 94,061

Certain equipment is also operated under daily, monthly or car hire utilization arrangements. Associated revenue amounted to \$12.8 million, \$13.0 million and \$14.7 million for the years ended August 31, 2018, 2017 and 2016, respectively.

Note 6 - Property, Plant and Equipment, net

<i>(In thousands)</i>	As of August 31,	
	2018	2017
Land and improvements	\$ 84,432	\$ 84,594
Machinery and equipment	414,865	378,311
Buildings and improvements	202,973	186,960
Construction in progress	48,406	39,417
Other	68,452	60,747
	819,128	750,029

Accumulated depreciation	(361,932)	(322,008)
	\$ 457,196	\$ 428,021

Depreciation expense was \$54.5 million, \$45.5 million and \$39.2 million for the years ended August 31, 2018, 2017 and 2016, respectively.

Note 7 - Investments In Unconsolidated Affiliates

GBW

The Company has a 50% ownership interest in GBW which performed railcar repair, refurbishment and maintenance until August 20, 2018, on which date the Company entered in to a dissolution agreement (See Note 3 Acquisitions). The Company accounts for its interest in GBW under the equity method of accounting.

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The assets and liabilities shown below as of August 31, 2018 primarily represent one remaining repair shop and other corporate related obligations while the summarized income statement for the year ended August 31, 2018 is for GBW's full year of activity.

Summarized financial data for GBW is as follows:

<i>(In thousands)</i>	As of August 31,	
	2018	2017
Current assets	\$ 8,531	\$ 81,860
Total assets	\$ 8,531	\$ 206,009
Current liabilities	\$ 23,283	\$ 33,033
Total liabilities	\$ 23,283	\$ 111,384

<i>(In thousands)</i>	Years ended August 31,		
	2018	2017	2016
Revenue	\$ 238,033	\$ 253,436	\$ 373,490
Margin	\$ (6,047)	\$ (4,058)	\$ 33,929
Net income (loss) ⁽¹⁾	\$ (51,679)	\$ (36,947)	\$ 4,006

⁽¹⁾ In 2018 and 2017, GBW recorded a pre-tax goodwill impairment loss of \$26.4 million and \$11.2 million, respectively, which reduced the goodwill balance to \$15.1 million at the time of the dissolution.

Greenbrier-Maxion

In May 2017, the Company completed a \$20 million investment in Greenbrier-Maxion, a railcar manufacturer in Brazil resulting in an increase in the Company's ownership interest from 19.5% to 60%. Greenbrier-Maxion also assembles bogies and offers a range of aftermarket services including railcar overhaul and refurbishment. The Company does not consolidate Greenbrier-Maxion for financial reporting purposes and accounts for its interest under the equity method of accounting as the entity's governance provisions require that all significant decisions of Greenbrier-Maxion are subject to shared consent of its shareholders.

Summarized financial data for Greenbrier-Maxion is as follows:

<i>(In thousands)</i>	As of August 31,	
	2018	2017
Current assets	\$ 41,619	\$ 48,012
Total assets	\$ 61,034	\$ 71,455
Current liabilities	\$ 38,027	\$ 38,055
Total liabilities	\$ 41,539	\$ 42,197

<i>(In thousands)</i>	Years ended August 31,		
	2018	2017	2016
Revenue	\$ 187,664	\$ 228,510	\$ 168,465

Margin	\$ 10,086	\$ 24,372	\$ 14,245
Net income (loss)	\$ (3,006)	\$ 1,378	\$ (4,051)

Amsted-Maxion Cruzeiro

In May 2017, the Company increased its ownership interest in Amsted-Maxion Cruzeiro, a manufacturer of castings and components for railcars and other heavy equipment, from 19.5% to 24.5% for \$3.25 million. Proceeds from the Company's increased ownership, along with loans from each of the partners, were used to retire third-party debt at Amsted-Maxion Cruzeiro. The Company retains an option to increase its ownership to 29.5% subject to certain conditions. Amsted-Maxion Cruzeiro has a 40% ownership position in Greenbrier-Maxion. The Company accounts for its interest in Amsted-Maxion Cruzeiro under the equity method of accounting.

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Summarized financial data for Amsted-Maxion Cruzeiro is as follows:

<i>(In thousands)</i>	As of August 31,	
	2018	2017
Current assets	\$ 21,463	\$ 23,777
Total assets	\$ 111,589	\$ 142,583
Current liabilities	\$ 27,981	\$ 28,084
Total liabilities	\$ 83,407	\$ 94,846

<i>(In thousands)</i>	Years ended August 31,		
	2018	2017	2016
Revenue	\$ 96,490	\$ 90,114	\$ 87,833
Margin	\$ 8,001	\$ 5,983	\$ 8,256
Net income (loss)	\$ (9,590)	\$ (20,114)	\$ (12,640)

Other Unconsolidated Affiliates

The Company has eight other unconsolidated affiliates which are accounted for under the equity method of accounting. For the year ended August 31, 2018, the Company recognized earnings of \$1.8 million from these other unconsolidated affiliates.

Summarized financial information, shown as 100% of these other unconsolidated affiliates in aggregate are as follows:

<i>(In thousands)</i>	As of August 31,	
	2018	2017
Current assets	\$ 32,168	\$ 16,996
Total assets	\$ 239,535	\$ 283,895
Current liabilities	\$ 3,647	\$ 3,003
Total liabilities	\$ 52,852	\$ 90,064

<i>(In thousands)</i>	Years ended August 31,		
	2018	2017	2016
Revenue	\$ 25,549	\$ 39,161	\$ 75,851
Margin	\$ 11,360	\$ 8,015	\$ 11,087
Net income (loss)	\$ 6,988	\$ 5,202	\$ 6,051

Note 8 - Goodwill

Changes in the carrying value of goodwill are as follows:

<i>(In thousands)</i>	Manufacturing	Wheels,	Leasing	Total
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		Repair & Parts	& Services	
Balance August 31, 2017	\$ 25,325	\$ 43,265	\$	\$ 68,590
Additions ⁽¹⁾	839	7,863		8,702
Translation	919			919
Balance August 31, 2018	\$ 27,083	\$ 51,128	\$	\$ 78,211

⁽¹⁾ Additions to goodwill relate to the GBW repair shop transaction and Manufacturing includes final adjustments to the Astra purchase price allocation. See Note 3 Acquisitions.

<i>(In thousands)</i>	Goodwill
Gross goodwill balance before accumulated goodwill impairment losses and other reductions	\$ 230,736
Accumulated goodwill impairment losses	(128,209)
Accumulated other reductions	(24,316)
Balance August 31, 2018	\$ 78,211

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The Company performs a goodwill impairment test annually during the third quarter. Goodwill is also tested more frequently if changes in circumstances or the occurrence of events indicates that a potential impairment exists. The provisions of ASC 350, *Intangibles – Goodwill and Other*, require the performance of an impairment test on goodwill. The Company compares the fair value of each reporting unit with its carrying value. The Company determines the fair value of the reporting unit based on a weighting of 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. Under the market approach, the Company estimates 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 was tested during the third quarter of 2018 and the Company concluded that goodwill was not impaired.

Note 9 - 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,	
	2018	2017
Intangible assets subject to amortization:		
Customer relationships	\$ 72,521	\$ 64,521
Accumulated amortization	(43,576)	(40,153)
Other intangibles	16,300	20,207
Accumulated amortization	(6,400)	(4,866)
	38,845	39,709
Intangible assets not subject to amortization	5,115	912
Prepaid and other assets	18,935	16,914
Nonqualified savings plan investments	26,299	20,974
Debt issuance costs, net	1,824	2,623
Assets held for sale	3,650	4,045
	\$ 94,668	\$ 85,177

Amortization expense for the years ended August 31, 2018, 2017 and 2016 was \$5.3 million, \$4.8 million and \$6.3 million, respectively. Amortization expense for the years ending August 31, 2019, 2020, 2021, 2022 and 2023 is expected to be \$5.2 million, \$5.2 million, \$4.8 million, \$3.4 million and \$3.2 million, respectively.

Note 10 - Revolving Notes

Senior secured credit facilities, consisting of three components, aggregated to \$635.3 million as of August 31, 2018.

As of August 31, 2018, a \$550.0 million revolving line of credit, maturing October 2020, secured by substantially all the Company's assets in the U.S. not otherwise pledged as security for term loans, was available to provide working capital and interim financing of equipment, principally for the U.S. and Mexican operations. Advances under this facility bear interest at LIBOR plus 1.75% or Prime plus 0.75% depending on the type of borrowing. Available borrowings under the credit facility are generally based on defined levels of inventory, receivables, property, plant and equipment and leased equipment, as well as total debt to consolidated capitalization and fixed charges coverage ratios. After August 31, 2018 this revolving line of credit agreement was amended (see Note 25 - Subsequent Events).

As of August 31, 2018, lines of credit totaling \$35.3 million secured by certain of the Company's European assets, with variable rates that range from Warsaw Interbank Offered Rate (WIBOR) plus 1.2% to WIBOR plus

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1.3% and Euro Interbank Offered Rate (EURIBOR) plus 1.1%, were available for working capital needs of the European manufacturing operation. European credit facilities are continually being renewed. Currently, these European credit facilities have maturities that range from December 2018 through June 2019.

As of August 31, 2018, the Company's Mexican railcar manufacturing joint venture had two lines of credit totaling \$50.0 million. The first line of credit provides up to \$30.0 million and is fully guaranteed by the Company and its joint venture partner. Advances under this facility bear interest at LIBOR plus 2.0%. The Mexican railcar manufacturing joint venture will be able to draw against this facility through January 2019. The second line of credit provides up to \$20.0 million, of which the Company and its joint venture partner have each guaranteed 50%. Advances under this facility bear interest at LIBOR plus 2.0%. The Mexican railcar manufacturing joint venture will be able to draw amounts available under this facility through July 2019.

As of August 31, 2018, outstanding commitments under the senior secured credit facilities consisted of \$72.2 million in letters of credit under the North American credit facility and \$27.7 million outstanding under the European credit facilities.

As of August 31, 2017, outstanding commitments under the senior secured credit facilities consisted of \$77.6 million in letters of credit under the North American credit facility and \$4.3 million outstanding under the European credit facilities.

Note 11 - Accounts Payable and Accrued Liabilities

<i>(In thousands)</i>	As of August 31,	
	2018	2017
Trade payables	\$ 226,405	\$ 180,592
Other accrued liabilities	73,273	107,002
Accrued payroll and related liabilities	105,111	84,749
Accrued warranty	27,395	20,737
Accrued maintenance	9,090	17,667
Income taxes payable	4,771	
Other	3,812	4,314
	\$ 449,857	\$ 415,061

Note 12 - Maintenance and Warranty Accruals

<i>(In thousands)</i>	As of August 31,		
	2018	2017	2016
Accrued maintenance			
Balance at beginning of period	\$ 17,667	\$ 18,646	\$ 18,642
Charged to cost of revenue	(389)	10,609	12,926
Payments	(8,188)	(11,588)	(12,922)
Balance at end of period	\$ 9,090	\$ 17,667	\$ 18,646

Accrued warranty

Balance at beginning of period	\$ 20,737	\$ 12,159	\$ 11,512
Charged to cost of revenue	12,323	6,872	6,069
Acquisition		3,526	
Payments	(5,217)	(2,649)	(5,299)
Currency translation effect	(448)	829	(123)
Balance at end of period	\$ 27,395	\$ 20,737	\$ 12,159

Table of Contents**Note 13 - Notes Payable, net**

<i>(In thousands)</i>	As of August 31,	
	2018	2017
Convertible senior notes, due 2018	\$	\$ 119,063
Convertible senior notes, due 2024	275,000	275,000
Term loans	179,923	184,001
Other notes payable	14,798	19,540
	\$ 469,721	\$ 597,604
Debt discount and issuance costs	(33,516)	(39,376)
	\$ 436,205	\$ 558,228

The Company's 3.5% convertible senior notes due 2018 with a conversion price of \$35.47 matured on April 1, 2018 with a balance of \$119.1 million prior to conversion. The conversion of these notes resulted in the issuance of an additional 3.4 million shares of the Company's common stock.

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 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, 2018 and 2017, 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.

Term loans are primarily composed of:

\$200 million of senior term debt, with a maturity date of March 2020, which is secured by a pool of leased railcars. The debt bears a floating interest rate of LIBOR plus 1.75% with principal of \$1.75 million paid quarterly in arrears and a balloon payment of \$159.8 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 1.75% to a fixed rate of 3.74%. The

principal balance as of August 31, 2018 was \$170.3 million. After August 31, 2018 this senior term debt agreement was amended (see Note 25 Subsequent Events).

Other term loans with an aggregate balance of \$9.7 million as of August 31, 2018 and maturity dates ranging from April 2020 to September 2022.

Other notes payable includes \$14.8 million of unsecured debt with a maturity date of June 2019.

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,

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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, 2018 principal payments on the notes payable are expected as follows:

(In thousands)

Year ending August 31,	
2019	\$ 26,775
2020	167,086
2021	413
2022	413
2023	34
Thereafter ⁽¹⁾	275,000
	\$ 469,721

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

Note 14 - 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, 2018 exchange rates, forward exchange contracts for the purchase of Polish Zlotys and the sale of Euros; the purchase of Mexican Pesos and the sale of U.S. Dollars; and for the purchase of U.S. Dollars and the sale of Saudi Riyals and Euros aggregated to \$145.4 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 December 2019, 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, 2018 exchange rates, approximately \$1.3 million would be reclassified to revenue or cost of revenue in the next year.

At August 31, 2018, an interest rate swap agreement maturing in March 2020 had a notional amount of \$85.1 million. The fair value of the contract is 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, 2018 interest rates, approximately \$0.1 million would be reclassified to interest expense in the next year.

Table of Contents**Fair Values of Derivative Instruments**

<i>(In thousands)</i>	Asset Derivatives			Liability Derivatives		
	Balance sheet caption	August 31, 2018	August 31, 2017	Balance sheet caption	August 31, 2018	August 31, 2017
		Fair Value	Fair Value		Fair Value	Fair Value
Derivatives designated as hedging instruments						
Foreign forward exchange contracts	Accounts receivable, net	\$ 700	\$ 2,341	Accounts payable and accrued liabilities	\$ 1,211	\$ 1,761
Interest rate swap contracts	Intangibles and other assets, net	781		Accounts payable and accrued liabilities	1	1,125
		\$ 1,481	\$ 2,341		\$ 1,212	\$ 2,886

Derivatives not designated as hedging instruments

Foreign forward exchange contracts	Accounts receivable, net	\$ 76	\$ 1,473	Accounts payable and accrued liabilities	\$ 354	\$
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The Effect of Derivative Instruments on the Consolidated Statements of Income

Derivatives in cash flow hedging relationships	Financial statement caption of gain recognized in income on derivative	Gain recognized in income on derivatives	
		Years ended August 31,	
		2018	2017
Foreign forward exchange contract	Interest and foreign exchange	\$ 1,052	\$ 3,207
Interest rate swap contracts	Interest and foreign exchange	(1)	23
		\$ 1,051	\$ 3,230

Derivatives in cash flow hedging relationships	Gain (loss) recognized in OCI on derivatives (effective portion) Years ended August 31,	Financial statement caption of gain (loss) reclassified	Gain (loss) reclassified from accumulated OCI into income (effective portion) Years ended August 31,	Financial statement caption of gain (loss) in income on derivative (ineffective portion and	Gain (loss) recognized on derivative (ineffective portion and
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			from accumulated OCI into income			amount excluded from effectiveness testing)			amount excluded from effectiveness testing) Years ended August 31, 2018 2017
	2018	2017		2018	2017		2018	2017	
Foreign forward exchange contracts	\$ (658)	\$ 1,746	Revenue	\$ 1,145	\$ (3,980)	Revenue	\$ 854	\$ (2,843)	
Foreign forward exchange contracts	(1,093)	385	Cost of revenue	(429)	336	Cost of revenue	306	248	
Interest rate swap contracts	1,632	1,042	Interest and foreign exchange	(298)	(1,057)	Interest and foreign exchange			
	\$ (119)	\$ 3,173		\$ 418	\$ (4,701)		\$ 1,160	\$ (2,595)	

Note 15 - 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.

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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, 2018 there were 1,050,675 shares available for grant compared to 233,271 and 476,770 shares available for grant as of the years ended August 31, 2017 and 2016, respectively. There are no stock options or stock appreciation rights outstanding as of August 31, 2018. 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, 2018, 2017 and 2016, the Company awarded restricted share and restricted stock unit grants totaling 317,036, 269,705 and 447,895 shares, respectively, which include performance-based grants. As of August 31, 2018, there were a total of 467,710 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 467,710 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, 2018, 2017 and 2016. The fair value of awards granted was \$15.2 million, \$11.3 million and \$12.5 million for the years ended August 31, 2018, 2017 and 2016, 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, 2018, 2017 and 2016 was \$17.2 million, \$20.2 million and \$22.5 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 \$15.5 million as of August 31, 2018.

Total unvested restricted share and restricted stock unit grants were 788,744 and 837,654 as of August 31, 2018 and 2017. 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, 2015 ⁽¹⁾	3,419,861
Granted	447,895
Forfeited	(19,526)
Balance at August 31, 2016 ⁽¹⁾	3,848,230
Granted	269,705
Forfeited	(26,206)
Balance at August 31, 2017 ⁽¹⁾	4,091,729
Granted	317,036
Forfeited	(34,440)

Balance at August 31, 2018 ⁽¹⁾ 4,374,325

⁽¹⁾ Balance represents cumulative grants net of forfeitures.

Share Repurchase Program

The Board of Directors has authorized the Company to repurchase in aggregate up to \$225 million of the Company's common stock. The program may be modified, suspended or discontinued at any time without prior notice. Under the share repurchase program, shares of common stock may be purchased on the open market or

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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 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, 2018 and 2017. As of August 31, 2018 the Company had cumulatively repurchased 3,206,226 shares for approximately \$137.0 million and had \$88.0 million available under the share repurchase program. In October 2017, the expiration date of this share repurchase program was extended from January 1, 2018 to March 31, 2019.

Stock Issuance

The Company's 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 the Company's common stock. See Note 13 - Notes Payable, net.

Note 16 - 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,		
	2018	2017	2016
Weighted average basic common shares outstanding ⁽¹⁾	30,857	29,225	29,156
Dilutive effect of 2018 Convertible notes ⁽²⁾	1,821	3,295	3,214
Dilutive effect of 2024 Convertible notes ⁽³⁾			n/a
Dilutive effect of 2026 Convertible notes ⁽⁴⁾	n/a	n/a	
Dilutive effect of restricted stock units ⁽⁵⁾	157	42	98
Weighted average diluted common shares outstanding	32,835	32,562	32,468

(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, 2018, 2017 and 2016.

(2) The dilutive effect of the 2018 Convertible notes was included as they were considered dilutive under the "if converted" method as further discussed below. The 2018 Convertible notes matured on April 1, 2018.

(3) The 2024 Convertible notes were issued in February 2017. The dilutive effect of the 2024 Convertible notes was excluded for the year ended August 31, 2018 and 2017 as the average stock price was less than the applicable conversion price and therefore was considered anti-dilutive.

(4) The 2026 Convertible notes were retired in August 2016. The effect of the 2026 Convertible notes was excluded for the year ended August 31, 2016 as the average stock price was less than the applicable conversion price and therefore the notes were 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.

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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 2024 Convertible notes, 2026 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 2018 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 2024 Convertible notes and 2026 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.

	Years ended August 31,		
	2018	2017	2016
Net earnings attributable to Greenbrier	\$ 151,781	\$ 116,067	\$ 183,213
Add back:			
Interest and debt issuance costs on the 2018 Convertible notes, net of tax	2,031	2,932	2,695
Earnings before interest and debt issuance costs on convertible notes	\$ 153,812	\$ 118,999	\$ 185,908
Weighted average diluted common shares outstanding	32,835	32,562	32,468
Diluted earnings per share ⁽¹⁾	\$ 4.68	\$ 3.65	\$ 5.73

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

Earnings before interest and debt issuance costs on convertible notes

Weighted average diluted common shares outstanding

Note 17 - 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 lease financing warehouse are principally built by Greenbrier. The Company accounts for this lease financing warehouse investment under the equity method of accounting. As of August 31, 2018, the carrying amount of the investment was \$6.1 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. During the year ended August 31, 2018, the Company recognized \$16 million in revenue associated with railcars sold into the lease financing warehouse and an additional \$48 million associated with railcars sold out of the lease financing warehouse. The Company also provides administrative and remarketing services to this entity and earns management fees for these services which were immaterial for the year ended August 31, 2018.

The Company has a 60.0% ownership interest in Greenbrier-Maxion, a railcar manufacturer in Brazil, and a 24.5% ownership interest in Amsted-Maxion Cruzeiro, a manufacturer of various castings and components for railcars and other heavy industrial equipment in Brazil. The Company accounts for these investments under the equity method of accounting. As of August 31, 2018, the Company had a \$7.2 million note receivable from Greenbrier-Maxion and a \$10.0 million note receivable from Amsted-Maxion Cruzeiro. These note receivables are included on the Consolidated

Balance Sheet in Accounts receivable, net.

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 we entered into an agreement with our 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 years ended August 31, 2018, 2017 and 2016. The Company sold wheel sets and components to GBW which totaled \$16.5 million, \$18.3 million and \$28.5 million for the years ended August 31, 2018, 2017 and 2016, respectively. GBW provided services to the Company which totaled \$0.4 million, \$1.0 million and \$1.3 million for the years ended August 31, 2018, 2017 and 2016, respectively.

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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 \$0.5 million, \$0.5 million and \$0.8 million for each of the years ended August 31, 2018, 2017 and 2016, respectively.

Note 18 - Income Taxes

Components of income tax expense were as follows:

<i>(In thousands)</i>	Years ended August 31,		
	2018	2017	2016
Current			
Federal	\$ 28,357	\$ 22,710	\$ 66,455
State	3,244	305	4,595
Foreign	38,628	35,893	50,299
	70,229	58,908	121,349
Deferred			
Federal	(33,459)	9,418	(6,199)
State	(344)	(1,467)	(1,174)
Foreign	(3,690)	(2,732)	(1,644)
	(37,493)	5,219	(9,017)
Change in valuation allowance	157	(113)	(10)
Income tax expense	\$ 32,893	\$ 64,014	\$ 112,322

Income tax expense is computed at rates different from statutory rates. The U.S. federal corporate statutory rate was significantly reduced from 35% to 21% effective January 1, 2018 by the Tax Act enacted on December 22, 2017. As a result of the Company's fiscal year, the Company's statutory federal corporate rate is a blended rate of 25.7% in 2018, which will be reduced to 21% in 2019 and thereafter.

Deferred income taxes were remeasured as a result of the new statutory rate resulting in a tax benefit of \$33.6 million. The Tax Act also required the Company to accrue a transition tax on foreign earnings not previously subject to U.S. taxation, which resulted in \$6.9 million of tax expense in 2018.

The Company recognized the income tax effects of the Tax Act in accordance with Staff Accounting Bulletin No. 118 (SAB 118) which required the financial results to reflect effects for which the accounting is complete and those for which it is provisional. Provisional effects will be adjusted during the measurement period determined under SAB 118 based on ongoing analysis of data, tax positions and regulatory guidance. The effect of the transition tax is provisional, in particular the calculation of prior year foreign earnings and profits. The effect of the remeasurement of domestic deferred taxes is provisional primarily because temporary differences that have been estimated as of August 31, 2018 could change the remeasurement once they are finalized with the filing of our fiscal 2018 income tax return. Since many of the deferred tax balances include estimates of future events, the Company is unable to determine the final impact of the tax rate change at this time.

The Tax Act also imposed a global intangible low-taxed income (GILTI) tax, which does not apply to the Company until 2019. The Company has made an accounting policy election to treat the GILTI tax as a current period expense.

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

	Years ended August 31,		
	2018	2017	2016
Federal statutory rate	25.7%	35.0%	35.0%
State income taxes, net of federal benefit	0.8	0.1	0.7
Foreign operations, excluding transition tax	1.8	(3.4)	0.1
Transition tax on foreign earnings	3.1		
Remeasurement of domestic deferred taxes	(15.0)		
Change in valuation allowance	0.1		
Noncontrolling interest in flow-through entity	(2.4)	(6.0)	(7.4)
Permanent differences and other	0.6	1.4	
Effective tax rate	14.7%	27.1%	28.4%

Earnings before income tax and earnings from unconsolidated affiliates for the years ended August 31, 2018, 2017 and 2016 were \$110.8 million, \$123.2 million and \$264.8 million, respectively, for our domestic U.S. operations and \$112.8 million, \$113.0 million and \$130.3 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,	
	2018	2017
Deferred tax assets:		
Accrued payroll and related liabilities	\$ 18,461	\$ 28,761
Deferred revenue	10,642	7,547
Inventories and other	10,518	13,641
Maintenance and warranty accruals	7,201	10,988
Net operating losses	2,002	320
Investment and asset tax credits	1,439	1,840
	50,263	63,097
Deferred tax liabilities:		
Fixed assets	70,942	110,429
Original issue discount	6,099	11,086
Intangibles	2,474	3,605
Other	1,831	(831)
Investment in GBW Joint Venture		14,066
	81,346	138,355
Valuation allowance	657	533

Net deferred tax liability	\$ 31,740	\$ 75,791
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As of August 31, 2018 the Company had \$1.5 million of state credit carryforwards that will begin to expire in 2021 and \$8.5 million of foreign NOL carryforwards that will begin to expire in 2020. The Company has placed valuation allowances against any 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. The net increase in the total valuation allowance on deferred taxes for which no benefit is anticipated was approximately \$0.1 million for the year ended August 31, 2018.

Prior to 2018 no provision had been made for U.S. income taxes on the Company's cumulative undistributed earnings from foreign subsidiaries. In 2018, however, these earnings were subject to the one-time transition tax on the deemed repatriation of undistributed foreign earnings, a tax which the Company intends to pay over eight years as permitted by the Tax Act. Notwithstanding this deemed repatriation, any actual repatriation would be

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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,		
		2018	2017	2016
Unrecognized Tax Benefit	Opening Balance	\$ 1,820	\$ 942	\$ 1,019
Gross increases	tax positions in prior period	237	1,368	
Gross decreases	tax positions in prior period	(449)	(53)	
Settlements				
Lapse of statute of limitations			(437)	(77)
Unrecognized Tax Benefit		\$ 1,608	\$ 1,820	\$ 942
Ending Balance				

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 2015, to state and local examinations before 2014, or to foreign examinations before 2013.

Unrecognized tax benefits, excluding interest, at August 31, 2018 were \$1.6 million, all of which would affect the effective tax rate if recognized. The unrecognized tax benefits at August 31, 2017 were \$1.8 million. Accrued interest on unrecognized tax benefits was \$0.2 million as of August 31, 2018 and was minimal as of August 31, 2017. The Company recorded annual interest benefits of approximately \$0.2 million for changes in the reserves during each of the years ended August 31, 2018 and 2017. The Company has not accrued any penalties on the reserves. 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 year.

Note 19 - 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 is accounted for under the equity method of accounting.

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For the year ended August 31, 2018:

	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

For the year ended August 31, 2017:

	Revenue			Earnings (loss) from operations		
	External	Intersegment	Total	External	Intersegment	Total
Manufacturing	\$ 1,725,188	\$ 19,291	\$ 1,744,479	\$ 295,334	\$ 1,022	\$ 296,356
Wheels, Repair & Parts	312,679	30,861	343,540	14,984	2,303	17,287
Leasing & Services	131,297	11,812	143,109	31,904	11,099	43,003
Eliminations		(61,964)	(61,964)		(14,424)	(14,424)
Corporate				(81,790)		(81,790)
	\$ 2,169,164	\$	\$ 2,169,164	\$ 260,432	\$	\$ 260,432

For the year ended August 31, 2016:

	Revenue			Earnings (loss) from operations		
	External	Intersegment	Total	External	Intersegment	Total
Manufacturing	\$ 2,096,331	\$ 89,158	\$ 2,185,489	\$ 415,094	\$ 24,299	\$ 439,393
Wheels, Repair & Parts	322,395	32,436	354,831	19,948	2,602	22,550
Leasing & Services	260,798	13,101	273,899	51,723	13,101	64,824
Eliminations		(134,695)	(134,695)		(40,002)	(40,002)
Corporate				(78,213)		(78,213)
	\$ 2,679,524	\$	\$ 2,679,524	\$ 408,552	\$	\$ 408,552

<i>(In thousands)</i>	Years ended August 31,		
	2018	2017	2016
Assets:			
Manufacturing	\$ 1,020,757	\$ 914,450	\$ 701,296

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Wheels, Repair & Parts	306,756	236,315	275,599
Leasing & Services	578,818	535,323	516,147
Unallocated	559,133	711,617	342,732

\$ 2,465,464 \$ 2,397,705 \$ 1,835,774

Depreciation and amortization:

Manufacturing	\$ 44,225	\$ 33,807	\$ 27,137
Wheels, Repair & Parts	10,771	11,143	11,971
Leasing & Services	19,360	20,179	24,237

\$ 74,356 \$ 65,129 \$ 63,345

Capital expenditures:

Manufacturing	\$ 59,707	\$ 54,973	\$ 51,294
Wheels, Repair & Parts	5,204	3,129	10,190
Leasing & Services	111,937	27,963	77,529

\$ 176,848 \$ 86,065 \$ 139,013

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The following table summarizes selected geographic information.

<i>(In thousands)</i>	Years ended August 31,		
	2018	2017	2016
Revenue ⁽¹⁾:			
U.S.	\$ 1,840,877	\$ 1,674,517	\$ 2,297,501
Foreign	678,587	494,647	382,023
	\$ 2,519,464	\$ 2,169,164	\$ 2,679,524
Assets:			
U.S.	\$ 1,677,144	\$ 1,307,239	\$ 955,674
Mexico	517,543	791,974	788,878
Europe	270,777	298,492	91,222
	\$ 2,465,464	\$ 2,397,705	\$ 1,835,774

⁽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,		
	2018	2017	2016
Earnings from operations	\$ 252,985	\$ 260,432	\$ 408,552
Interest and foreign exchange	29,368	24,192	13,502
Earnings before income tax and earnings (loss) from unconsolidated affiliates	\$ 223,617	\$ 236,240	\$ 395,050

The Company has a 50% ownership interest in the GBW Joint Venture and accounts for its interest under the equity method of accounting. The Company's 50% share of the results of operations are included in Earnings (loss) from unconsolidated affiliates in the Consolidated Statement of Income and its investment is included in Investments in unconsolidated affiliates in the Consolidated Balance Sheet. The GBW Joint Venture was Greenbrier's fourth reportable segment until August 20, 2018. Information for 2018, 2017 and 2016 is included in the tables below which represent totals for GBW rather than Greenbrier's 50% share, as this is how performance and resource allocation was previously evaluated.

<i>(In thousands)</i>	Years ended August 31,		
	2018	2017	2016
GBW Joint Venture:			
Revenue	\$ 238,033	\$ 253,436	\$ 373,490
Earnings (loss) from operations	\$ (46,783)	\$ (32,454)	\$ 8,558
Assets	\$ 8,531	\$ 206,009	\$ 247,610

Depreciation and amortization	\$ 8,932	\$ 9,023	\$ 7,676
Capital expenditures	\$ 8,514	\$ 8,030	\$ 16,110

Note 20 - Customer Concentration

Customer concentration is defined as a single customer that accounts for more than 10% of total revenues or accounts receivable. In 2018, revenue from two customers represented 20% and 11% of total revenue. In 2017, revenue from one customer represented 20% of total revenue. In 2016, revenue from two customers represented 17% and 14% of total revenue. No other customers accounted for more than 10% of total revenues for the years ended August 31, 2018, 2017, or 2016. One customer had a balance that individually equaled or exceeded 10% of accounts receivable and represented 19% of the consolidated accounts receivable balance at August 31, 2018. Three customers had balances that individually equaled or exceeded 10% of accounts receivable and represented 13%, 13% and 10% of the consolidated accounts receivable balance at August 31, 2017.

Table of Contents**Note 21 - Lease Commitments**

Lease expense for railcar equipment leased-in under non-cancelable leases was \$7.5 million, \$7.6 million and \$6.6 million for the years ended August 31, 2018, 2017 and 2016. Aggregate minimum future amounts payable under these non-cancelable railcar equipment leases are as follows:

(In thousands)

Year ending August 31,	
2019	\$ 6,287
2020	4,839
2021	1,821
2022	1,792
2023	1,792
Thereafter	1,810
	\$ 18,341

Operating leases for domestic railcar repair facilities, office space and certain manufacturing and office equipment expire at various dates through February 2030. Rental expense for facilities, office space and equipment was \$8.7 million, \$9.4 million and \$9.3 million for the years ended August 31, 2018, 2017 and 2016. Aggregate minimum future amounts payable under these non-cancelable operating leases are as follows:

(In thousands)

Year ending August 31,	
2019	\$ 6,048
2020	4,437
2021	3,286
2022	1,915
2023	1,862
Thereafter	196
	\$ 17,744

Note 22 - Commitments and Contingencies**Portland Harbor Superfund Site**

The Company's Portland, Oregon manufacturing facility 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 have not signed such consent, but nevertheless contributed money 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

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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 16, 2020. The allocation process is continuing in parallel with the process to define the remediation steps.

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 it wants to collect 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 Company's Portland, Oregon manufacturing facility 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, have agreed to help fund the additional sampling.

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 its ownership of the Portland, Oregon manufacturing facility. 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 its 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 Company, along with many of the other defendants, has moved to dismiss the case. That motion is pending. The complaint does not specify the amount of damages the Plaintiff will seek.

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

The Company has 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

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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 the Company 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 the quarter ended November 30, 2016, the Company received an adverse judgment of approximately \$15 million, which was subsequently reduced to approximately \$10 million, on one matter related to commercial litigation in a foreign jurisdiction. The Company has settled the litigation for less than the judgment.

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, 2018, the Company had outstanding letters of credit aggregating \$72.2 million associated with performance guarantees, facility leases and workers compensation insurance.

As of August 31, 2018, the Company had a \$10.0 million note receivable from Amsted-Maxion Cruzeiro, its unconsolidated Brazilian castings and components manufacturer and a \$7.2 million note receivable balance 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 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:

	Carrying	Estimated
<i>(In thousands)</i>	Amount ¹	(Level 2)
Notes payable as of August 31, 2018	\$ 469,721	\$ 517,925
Notes payable as of August 31, 2017	\$ 597,604	\$ 644,708

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, accounts payable and accrued liabilities, foreign currency forward contracts and interest rate swaps 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.

Note 24 - 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.

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Assets and liabilities measured at fair value on a recurring basis as of August 31, 2018 are:

<i>(In thousands)</i>	Total	Level 1	Level 2⁽¹⁾	Level 3
Assets:				
Derivative financial instruments	\$ 1,557	\$	\$ 1,557	\$
Nonqualified savings plan investments	26,299	26,299		
Cash equivalents	126,430	126,430		
	\$ 154,286	\$ 152,729	\$ 1,557	\$

Liabilities:

Derivative financial instruments	\$ 1,566	\$	\$ 1,566	\$
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(1)Level 2 assets include derivative financial instruments which are valued based on significant observable inputs. See Note 14 Derivative Instruments for further discussion.

Assets and liabilities measured at fair value on a recurring basis as of August 31, 2017 are:

<i>(In thousands)</i>	Total	Level 1	Level 2⁽¹⁾	Level 3
Assets:				
Derivative financial instruments	\$ 3,814	\$	\$ 3,814	\$
Nonqualified savings plan investments	20,974	20,974		
Cash equivalents	105,337	105,337		
	\$ 130,125	\$ 126,311	\$ 3,814	\$

Liabilities:

Derivative financial instruments	\$ 2,886	\$	\$ 2,886	\$
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(1)Level 2 assets include derivative financial instruments which are valued based on significant observable inputs. See Note 14 Derivative Instruments for further discussion.

Note 25 - Subsequent Events

As of August 31, 2018, a \$550.0 million revolving line of credit, maturing October 2020, secured by substantially all the Company's assets in the U.S. not otherwise pledged as security for term loans, was available to provide working capital and interim financing of equipment, principally for the U.S. and Mexican operations. Advances under this facility bear interest at LIBOR plus 1.75% or Prime plus 0.75% depending on the type of borrowing. Available borrowings under the credit facility are generally based on defined levels of inventory, receivables, property, plant and equipment and leased equipment, as well as total debt to consolidated capitalization and fixed charges coverage ratios. In September 2018, this revolving line of credit was renewed on terms similar to the existing facility and increased to \$600.0 million with a new maturity date of September 2023. In addition, advances under this renewed facility bear

interest at LIBOR plus 1.50% or Prime plus 0.50% depending on the type of borrowing.

In September 2018, the Company 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 2.99%. The Company intends to use hedge accounting to account for the interest rate swap agreement.

In October 2018, the Company announced that Greenbrier and the Saudi Railway Company (SAR) signed an agreement to form a joint venture that will generate a total investment of 1 billion Saudi Riyals (USD \$270 million) in the Saudi Arabia's railway system and supply of freight railcars for the Saudi rail industry. The joint venture is subject to the completion of final due diligence by the parties and required government or corporate approvals.

Table of Contents**Quarterly Results of Operations (Unaudited)**

<i>(In thousands, except per share amount)</i>	First	Second	Third	Fourth	Total
2018					
Revenue					
Manufacturing	\$ 451,485	\$ 511,827	\$ 510,099	\$ 571,175	\$ 2,044,586
Wheels, Repair & Parts	78,011	88,710	94,515	85,787	347,023
Leasing & Services	30,039	28,799	36,773	32,244	127,855
	559,535	629,336	641,387	689,206	2,519,464
Cost of revenue					
Manufacturing	380,850	429,165	427,875	489,517	1,727,407
Wheels, Repair & Parts	72,506	80,708	85,850	79,266	318,330
Leasing & Services	16,865	14,116	19,155	14,536	64,672
	470,221	523,989	532,880	583,319	2,110,409
Margin	89,314	105,347	108,507	105,887	409,055
Selling and administrative	47,043	50,294	51,793	51,309	200,439
Net gain on disposition of equipment	(19,171)	(5,817)	(14,825)	(4,556)	(44,369)
Earnings from operations	61,442	60,870	71,539	59,134	252,985
Other costs					
Interest and foreign exchange	7,020	7,029	6,533	8,786	29,368
Earnings before income tax and earnings (loss) from unconsolidated affiliates	54,422	53,841	65,006	50,348	223,617
Income tax expense	(18,135)	11,301	(15,944)	(10,115)	(32,893)
Earnings (loss) from unconsolidated affiliates	(2,910)	147	(12,823)	(3,075)	(18,661)
Net earnings	33,377	65,289	36,239	37,158	172,063
Net earnings attributable to noncontrolling interest	(7,124)	(3,647)	(3,288)	(6,223)	(20,282)
Net earnings attributable to Greenbrier	\$ 26,253	\$ 61,642	\$ 32,951	\$ 30,935	\$ 151,781
Basic earnings per common share: ⁽¹⁾	\$ 0.90	\$ 2.10	\$ 1.03	\$ 0.95	\$ 4.92
Diluted earnings per common share: ⁽¹⁾	\$ 0.83	\$ 1.91	\$ 1.01	\$ 0.94	\$ 4.68

(1) Quarterly amounts do not total to the year to date amount as each period is calculated discretely. Diluted earnings per common share includes the dilutive effect of the 2024 Convertible Notes using the treasury stock method when dilutive, restricted stock units that are not considered participating securities, restricted stock units that are subject to performance criteria for which actual levels of performance above target have been achieved and the dilutive effect of shares underlying the 2018 Convertible Notes, during the periods in which they were outstanding, using the if converted method in which debt issuance and interest costs, net of tax, were added back to net earnings. The

2018 Convertible notes matured on April 1, 2018.

Table of Contents**Quarterly Results of Operations (Unaudited)**

<i>(In thousands, except per share amount)</i>	First	Second	Third	Fourth	Total
2017					
Revenue					
Manufacturing	\$ 454,033	\$ 445,504	\$ 317,104	\$ 508,547	\$ 1,725,188
Wheels, Repair & Parts	69,635	82,714	85,231	75,099	312,679
Leasing & Services	28,646	38,064	36,826	27,761	131,297
	552,314	566,282	439,161	611,407	2,169,164
Cost of revenue					
Manufacturing	356,555	346,653	245,228	425,531	1,373,967
Wheels, Repair & Parts	64,978	75,497	77,985	69,876	288,336
Leasing & Services	18,030	25,207	26,247	16,078	85,562
	439,563	447,357	349,460	511,485	1,747,865
Margin	112,751	118,925	89,701	99,922	421,299
Selling and administrative	41,213	39,495	42,810	47,089	170,607
Net gain on disposition of equipment	(1,122)	(2,090)	(1,581)	(4,947)	(9,740)
Earnings from operations	72,660	81,520	48,472	57,780	260,432
Other costs					
Interest and foreign exchange	1,724	5,673	7,894	8,901	24,192
Earnings before income tax and loss from unconsolidated affiliates	70,936	75,847	40,578	48,879	236,240
Income tax expense	(20,386)	(24,858)	(8,656)	(10,114)	(64,014)
Loss from unconsolidated affiliates	(2,584)	(1,988)	(681)	(6,511)	(11,764)
Net earnings	47,966	49,001	31,241	32,254	160,462
Net earnings attributable to noncontrolling interest	(23,004)	(14,465)	1,582	(8,508)	(44,395)
Net earnings attributable to Greenbrier	\$ 24,962	\$ 34,536	\$ 32,823	\$ 23,746	\$ 116,067
Basic earnings per common share: ⁽¹⁾	\$ 0.86	\$ 1.19	\$ 1.12	\$ 0.81	\$ 3.97
Diluted earnings per common share: ⁽¹⁾	\$ 0.79	\$ 1.09	\$ 1.03	\$ 0.75	\$ 3.65

(1) Quarterly amounts do not total to the year to date amount as each period is calculated discretely. Diluted earnings per common share includes the dilutive effect of the 2024 Convertible Notes using the treasury stock method when dilutive, restricted stock units that are subject to performance criteria for which actual levels of performance above target have been achieved and the dilutive effect of shares underlying the 2018 Convertible Notes using the if converted method in which debt issuance and interest costs, net of tax, were added back to net earnings.

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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, Principal Financial Officer and Principal 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, Principal Financial Officer and Principal 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, Principal Financial Officer and Principal 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, 2018 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Management of The Greenbrier Companies, Inc. together with its consolidated subsidiaries (the Company), is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is a process designed under the supervision of the Company's Principal Executive Officer and Principal Financial Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States of America.

As of the end of the Company's 2018 fiscal year, management conducted an assessment of the effectiveness of the Company's 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 (COSO). On August 20, 2018 the Company entered into an agreement to discontinue the GBW railcar repair joint venture, which resulted in 12 repair shops returned to the Company. In addition, on August 8, 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. Management excluded these 12 repair shops and Rayvag from our 2018 assessment of the effectiveness of our internal control over financial reporting as of August 31, 2018. The 12 repair shops and Rayvag accounted for approximately 1.2% of the Company's total assets as of August 31, 2018 and from the date of the agreements to August 31, 2018 accounted for approximately 0.2% of the Company's revenues for the year ended August 31, 2018. These 12 repair shops and Rayvag will be included in our assessment of internal controls over financial reporting in fiscal 2019. Based on this assessment, management has determined that the Company's internal control over financial reporting as of August 31, 2018 is effective.

Our independent registered public accounting firm, KPMG LLP, independently assessed the effectiveness of the Company's internal control over financial reporting excluding the 12 repair shops and Rayvag, as stated in their attestation report, which is included at the end of Part II, Item 9A of this Form 10-K.

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Inherent Limitations on Effectiveness of Controls

The Company's management, including the Principal Executive Officer, Principal Financial Officer and Principal 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 the 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.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders

The Greenbrier Companies, Inc. and subsidiaries:

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, 2018, 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, 2018, 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, 2018 and 2017, 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, 2018, and the related notes (collectively, the consolidated financial statements), and our report dated October 26, 2018 expressed an unqualified opinion on those consolidated financial statements.

During fiscal 2018, the Company acquired 12 repair shops and an approximate 68% ownership interest in Rayvag, a railcar manufacturing company. Management excluded all 12 of the acquired repair shops and Rayvag's internal control over financial reporting from its assessment of the effectiveness of the Company's internal control over financial reporting as of August 31, 2018. The total assets of these 12 repair shops and Rayvag represented approximately 1.2% of consolidated total assets as of August 31, 2018 and approximately 0.2% of consolidated revenues for the year ended August 31, 2018. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of these 12 repair shops and Rayvag.

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

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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 26, 2018

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Item 9B. OTHER INFORMATION

None

PART III

Item 10. DIRECTORS AND EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

There is hereby incorporated by reference the information under the captions Election of Directors , Board Committees, Meetings and Charters , Our Code of Business Conduct and Ethics and FCPA Compliance and Section 16(a) Beneficial Ownership Reporting Compliance in the Company'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 Registrant's year ended August 31, 2018. Information on the executive officers of the Company is found under the caption Executive Officers of the Registrant in Part I of this 10-K.

Item 11. EXECUTIVE COMPENSATION

There is hereby incorporated by reference the information under the caption Executive Compensation , Compensation Committee Report , 2018 Director Compensation , Compensation Committee Interlocks and Insider Participation and Risk Oversight 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 Registrant's year ended August 31, 2018.

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

There is hereby incorporated by reference the information under the captions Stock Ownership of Certain Beneficial Owners and Management and Equity Compensation Plan Information 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 Registrant's year ended August 31, 2018.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

There is hereby incorporated by reference the information under the caption Related Party Transactions and Director Independence 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 Registrant's year ended August 31, 2018.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

There is hereby incorporated by reference the information under the caption Ratification of Appointment of Auditors 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, 2018.

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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 Registrant's Bylaws, as amended January 11, 2006, are incorporated herein by reference to Exhibit 3.3 to the Registrant's Form 10-Q filed April 5, 2006.

3.4 Amendment to the Registrant's Bylaws, dated October 31, 2006, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed November 6, 2006.

3.5 Amendment to the Registrant's Bylaws, dated January 8, 2008, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed November 8, 2007.

3.6 Amendment to the Registrant's Bylaws, dated April 8, 2008, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed April 11, 2008.

3.7

Amendment to the Registrant's Bylaws, dated April 7, 2009, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed April 13, 2009.

3.8 Amendment to the Registrant's Bylaws, dated June 8, 2009, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed June 10, 2009.

3.9 Amendment to the Registrant's Bylaws, dated June 10, 2009, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed June 12, 2009.

3.10 Amendment to the Registrant's Bylaws, dated October 30, 2012, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed November 5, 2012.

3.11 Amendment to the Registrant's Bylaws, dated January 9, 2013, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed January 15, 2013.

3.12 Amendment to the Registrant's Bylaws, dated October 29, 2013, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed October 31, 2013.

3.13 Amendment to the Registrant's Bylaws, dated October 29, 2014, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed November 3, 2014.

3.14 Amendment to the Registrant's Bylaws, dated March 31, 2015, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed April 6, 2015.

3.15 Amendment to the Registrant's Bylaws, dated July 1, 2015, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed July 8, 2015.

3.16 Amendment to the Registrant's Bylaws, dated October 21, 2015, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed October 22, 2015.

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- 3.17 Amendment to the Registrant's Bylaws, dated October 30, 2015, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed November 2, 2015.
- 3.18 Amendment to the Registrant's Bylaws, dated March 31, 2017, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed March 31, 2017.
- 3.19 Amendment to the Registrant's Bylaws, dated June 23, 2017, is incorporated herein by reference to Exhibit 3.1 to the Registrant's Form 8-K filed June 29, 2017.
- 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.
- 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* 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.
- 10.3* 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.
- 10.4* 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.
- 10.5* Form of Agreement concerning Indemnification and Related Matters (Directors) between Registrant and its directors is incorporated herein by reference to Exhibit 10.2 to the Registrant's Form 10-Q filed July 1, 2015.
- 10.6*

Form of Agreement concerning Indemnification and Related Matters (Officers) between Registrant and its officers is incorporated herein by reference to Exhibit 10.2 to the Registrant's Form 10-Q filed June 29, 2018.

- 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* Form of Director Restricted Share Agreement related to the 2017 Amended and Restated Stock Incentive Plan is incorporated herein by reference to Exhibit 10.1 to the Registrant's Form 10-Q filed April 6, 2018.

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- 10.12* 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.
- 10.13* 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.
- 10.14* 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.
- 10.15* 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.
- 10.16* 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.
- 10.17* 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.
- 10.18* Updated Rabbi Trust Agreements, dated October 1, 2012, related to the Greenbrier Companies, Inc. Nonqualified Deferred Compensation Plan for Directors, are incorporated herein by reference to Exhibit 10.2 to the Registrant's Form 10-Q filed January 9, 2013.
- 10.19* Amendment No. 1 to Trust Agreement, dated June 15, 2018, related to The Greenbrier Companies, Inc. Nonqualified Deferred Compensation Plan for Directors, is incorporated by reference to Exhibit 10.7 to the Registrant's Form 10-Q filed June 29, 2018.
- 10.20* The Greenbrier Companies, Inc. Form of Restricted Stock Unit Award Agreement, approved on May 22, 2015, is incorporated herein by reference to Exhibit 10.1 of the Registrant's Form 10-Q filed July 1, 2015.
- 10.21* The Greenbrier Companies, Inc. Form of Restricted Stock Unit Award Agreement, approved on March 27, 2017, is incorporated herein by reference to Exhibit 10.22 of the Registrant's Form 10-K filed October 27, 2017.

- 10.22* The Greenbrier Companies, Inc. Form of Restricted Stock Unit Award Agreement, approved on April 2, 2018, is incorporated herein by reference to Exhibit 10.3 of the Registrant's Form 10-Q filed June 29, 2018.
- 10.23* 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.
- 10.24* 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.
- 10.25 The Greenbrier Companies, Inc. Executive Stock Ownership Guidelines, adopted as of June 27, 2018.
- 10.26 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.
- 10.27 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.

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- 10.28 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.
- 10.29 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.
- 10.30 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.
- 10.31 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.
- 10.32 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.
- 10.33 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.
- 14.1 Code of Business Conduct and Ethics is incorporated herein by reference to Exhibit 14.1 to the Registrant's Form 8-K filed January 12, 2016.
- 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 The following financial information from the Company's Annual Report on Form 10-K for the year ended August 31, 2018, formatted in XBRL (eXtensible Business Reporting Language) and furnished electronically herewith: (i) the Consolidated Balance Sheets; (ii) the Consolidated Statements of Income; (iii) Consolidated Statements of Comprehensive Income (iv) the Consolidated Statements of Equity (v) the Consolidated Statements of Cash Flows; (vi) the Notes to Condensed Consolidated Financial Statements.

* 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.

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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 26, 2018

By: /s/ William A. Furman
William A. Furman
President and Chief Executive Officer

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

Signature	Date
/s/ William A. Furman William A. Furman, President, Chief Executive Officer and Chairman of the Board	October 26, 2018
/s/ Duane C. McDougall Duane C. McDougall, Director	October 26, 2018
/s/ Graeme A. Jack Graeme A. Jack, Director	October 26, 2018
/s/ Charles J. Swindells Charles J. Swindells, Director	October 26, 2018
/s/ Donald A. Washburn Donald A. Washburn, Director	October 26, 2018
/s/ Kelly M. Williams Kelly M. Williams, Director	October 26, 2018
/s/ Thomas B. Fargo	October 26, 2018

Thomas B. Fargo, Director

/s/ Wanda F. Felton

October 26, 2018

Wanda F. Felton, Director

/s/ David L. Starling

October 26, 2018

David L. Starling, Director

/s/ Lorie L. Tekorius

October 26, 2018

Lorie L. Tekorius, Executive Vice President

and Chief Operating Officer (Principal Financial Officer)

/s/ Adrian J. Downes

October 26, 2018

Adrian J. Downes, Senior Vice President,

Acting Chief Financial Officer and

Chief Accounting Officer (Principal Accounting Officer)

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CERTIFICATIONS

The Company filed the required 303A.12(a) New York Stock Exchange Certification of its Chief Financial Officer with the New York Stock Exchange with no qualifications following the 2018 Annual Meeting of Shareholders and the Company filed as an exhibit to its Annual Report on Form 10-K for the year ended August 31, 2017, as filed with the Securities and Exchange Commission, a Certification of the Chief Executive Officer and a Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.