

FREIGHT CATALOG



Wabtec[®]
CORPORATION

Your Transportation, Equipment & Service Provider



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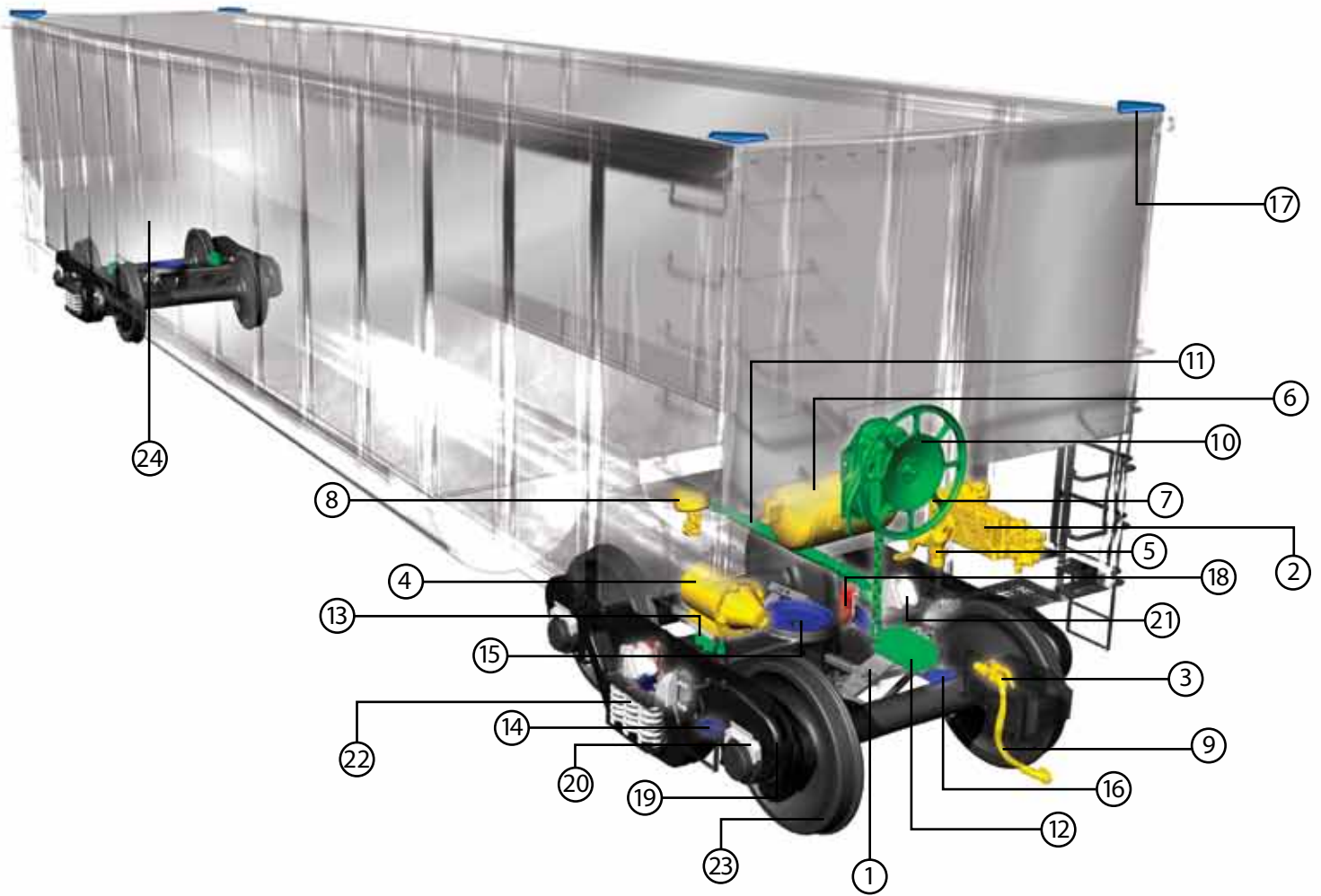
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Coal Car



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● Pneumatics

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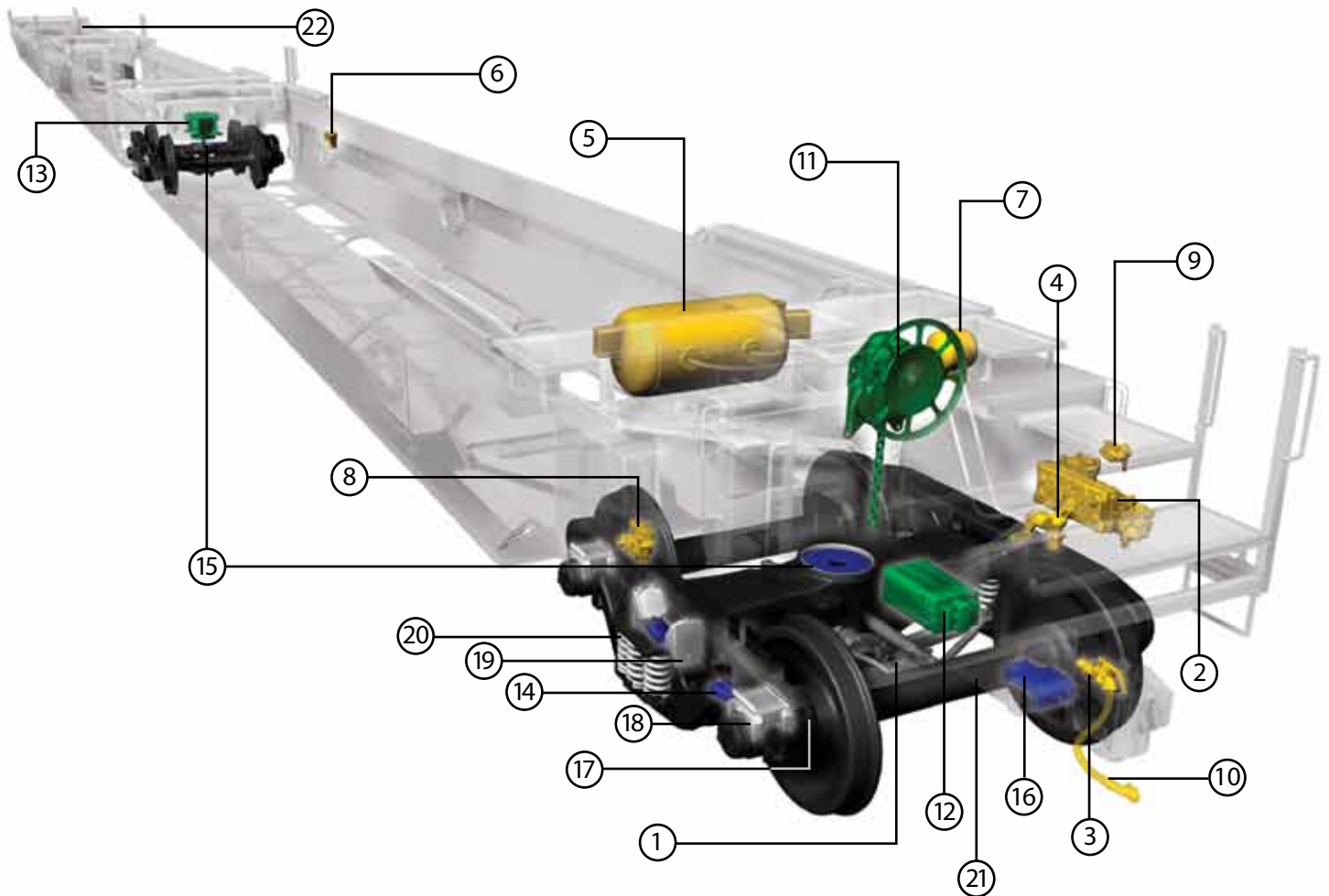
○ Truck Components

- 19. Bolster and Sideframes
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- 1. TMX® & UBX®
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- 4. Dirt Collector/Cutout Cocks
- 5. Reservoirs
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● Energy Management

- 11. Hand Brake
- 12. Draft Gears
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Articulated Connectors

● Wear and Lading Protection

- 14. Brake Beam Guides
- 15. Bowl Liners
- 16. Coupler Carrier Wear Plates

○ Truck Components

- 17. Bolster and Sideframes
- 18. Bearing Adapter & Shear Pads
- 19. Friction Wedges
- 20. Load Springs
- 21. Wheels and Axles

Telemetry Systems

- 22. End of Train Device
(not shown)



Wabtec[®]
CORPORATION

BRAKE SYSTEMS



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1-888-264-0011
info@wabtec.com

Brake Systems

Truck Mounted Brake Systems

Cardwell Westinghouse designs and manufactures truck mounted brake assemblies TMX® and UBX® for the rail industry.

Business Unit: Cardwell Westinghouse

Features / Benefits:

- The TMX® and UBX® truck mounted brake systems are made of durable, lightweight materials, including fabricated truss-type brake beams with replaceable brake heads for a system that is 400-500 pounds less than conventional brake rigging
- Freely suspended systems, which require no special bolsters or connections of any kind to existing bolsters or the car body, results in even brake pad wear. This, combined with the increased capacity of the double acting slack adjuster that allows for the use of two-inch-thick composition brake shoes, leads to improved economy through less frequent shoe change-outs
- Easy to install and adjust
- Beams for either 14° or 18° AAR side frame end guides. Also offer custom 12° or 16° for export.
- Standard group "N" handbrake can be used on most applications utilizing the integrated hand brake connection



TMX®

The TMX is currently available in 7, 8 and 9 1/4-inch cylinder sizes with simplified lever ratio combinations to accommodate all conventional and well-car applications for 70-ton, 100-ton and 125-ton trucks. Also available in 10, 11 and 12 inch sizes for export.



UBX®

- Cost-effective substitute for body mounted brakes
- 45% lighter than body mounted brakes
- 70 & 100 ton applications
- Reliable air spring actuator that is sealed to eliminate contamination

Reconditioning Service Available in:

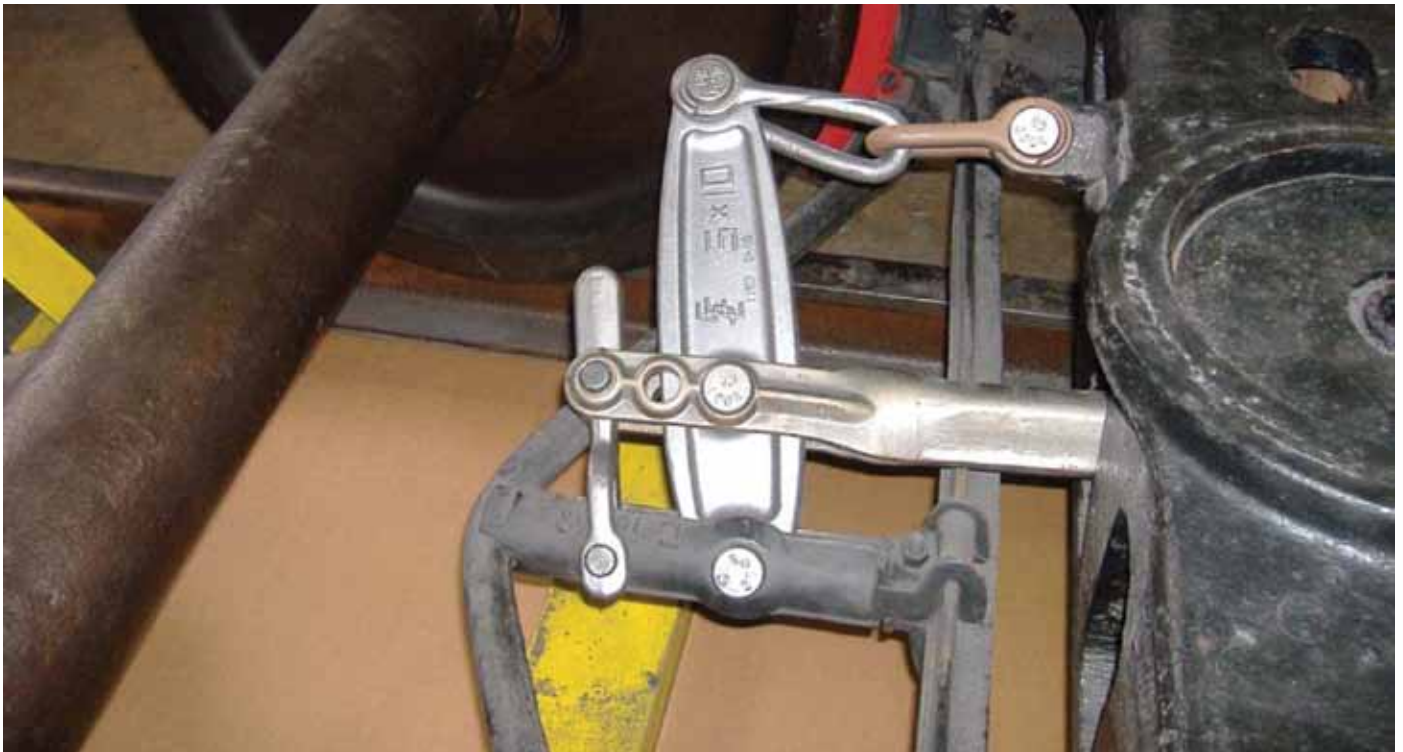
- Chicago, IL

Brake Systems

Schaefer Link System

Business Unit: Schaefer Equipment

This combination of components guides the brake beam in a horizontal configuration, regardless of brake beam end extension wear. The brake beam is prevented from drooping, which can cause the top of the brake shoe to wear more than the bottom as the top of the brake head tilts closer to the wheel tread. It also reduces the frictional losses between the brake beam and the side frame pocket, thereby increasing the rigging efficiency and reducing the brake shoe force variations from side to side on the same brake beam.



Features / Benefits:

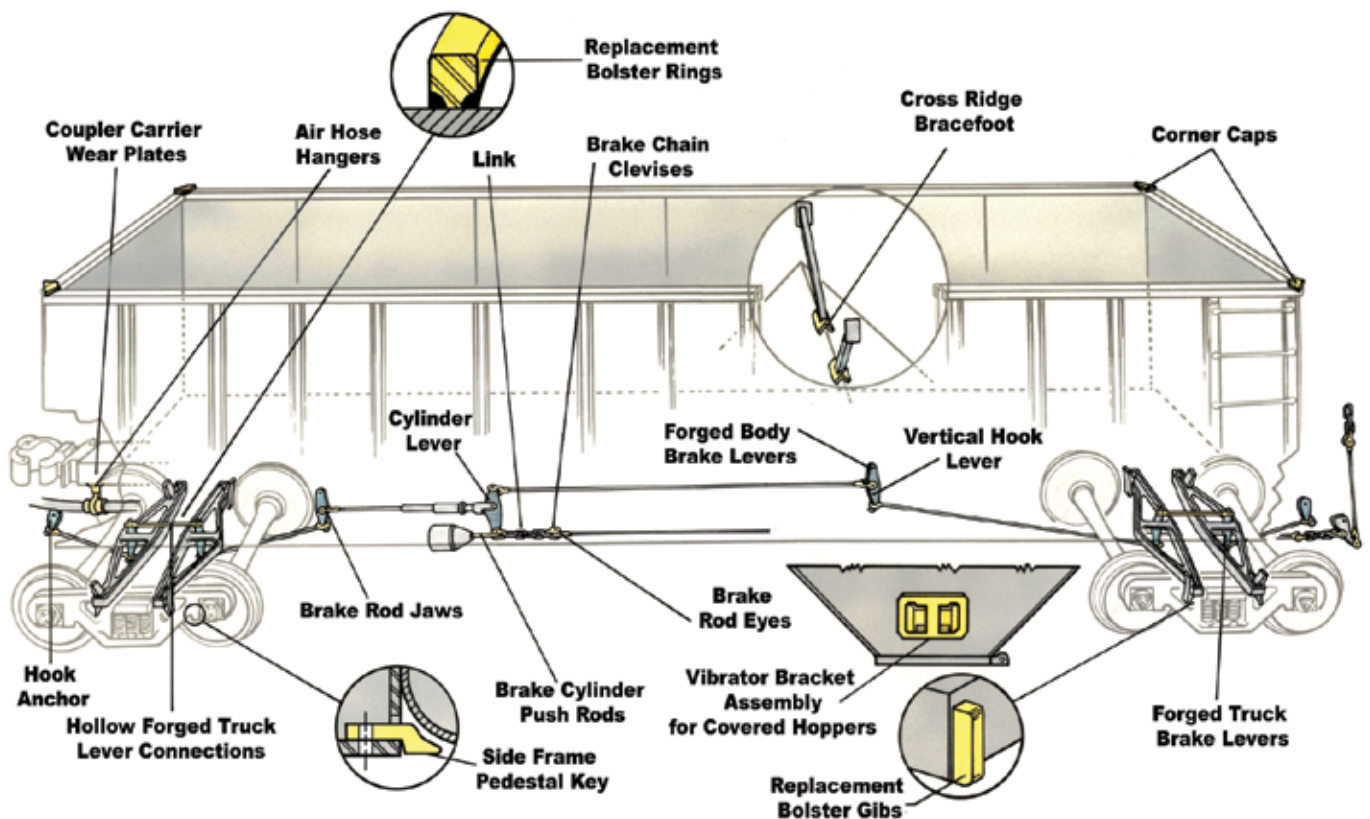
- Uses standard truck lever arrangement
- Promotes even brake shoe wear
- Improves brake shoe force and shoe alignment
- Extends life of the end guide and wear liner as well as the brake shoe and wheel life
- Equipped with Schaefer 3-hole truck lever connections and equipment links

Brake Systems

Miscellaneous

Business Unit: Schaefer Equipment

Schaefer Equipment pioneered the design and production of forged freight car brake parts and other truck car components, and creates custom forgings.



Barber Brake Beams

Formerly known as the Triax, Wabtec's world-class brake beams set the industry standard for quality, durability and innovative design features.

- Wabtec's Uni-Truss single piece design means there are no welds to fail or fasteners to shear
- Diagonally corrected end to counteract brake beam rotation provides even pressure across the full face of the brake shoe, protecting against uneven wear
- Steel construction for strength and reliability
- Zero field failures



Brake Systems

Miscellaneous (continued)



Body Brake Levers

Body brake levers, featuring I-beam designs to reduce weight, come in a wide range of sizes for use as cylinder, hand brake and floating levers. They are forged from C-1040/1045 special bar quality steel to produce minimum pin hole wear and longer service life. On many of these body brake levers, the center pad provides adjustability for drilling dimensions. Lengths from 10 to 42 inches between end hole centers are available from forging dies.



Truck Brake Levers

Schaefer's forged truck brake levers feature I-beam designs that eliminate needless metal while their entire length is proportioned to offer uniform resistance to stress. Manufactured from C-1040/1045 special bar quality steel, these lightweight levers have pin holes sized to assure proper fit. Heat-treated for additional strength and pin hole hardness, they can be bent on both ends, if necessary, to meet specific requirements.



Truck Lever Connections (Bottom Rods)

Hollow-forged truck lever connections, manufactured from C-1040/1045 special bar quality steel, are designed for specific load requirements. Their design provides greater strength while eliminating all unnecessary weight, thus reducing wear on the connection and all connected components. Available in a wide range of sizes for through or under bolster applications.



Brake Beam Hangers

Forged from C-1045 special bar quality steel, Schaefer Equipment brake beam hangers are heat treated to provide increased strength and long service life. The loop type hangers are offered in various lengths.

Brake Systems

Miscellaneous (continued)



Brake Clevises

Schaefer brake clevises are forged from C-1040/1045 special bar quality steel to assure greater strength and resistance to wear. They are available in all standard AAR sizes, as well as special sizes and configurations upon request.



Brake Rod Eyes

Arc-weld brake rod eyes are easy to apply and are used for application on new equipment, maintenance, or repairs. Arc-weld eyes, forged from C-1020 steel, are for application to brake rods from 3/4 to 1 3/8 inch diameter.



Brake Rod Jaws

Arc-weld brake rod jaws suited for use on new equipment or in repair or maintenance applications, are easy to apply and can be used in any shop or repair track that has arc-welding equipment. The arc-weld socket assures correct alignment of the jaw with the brake rod without using special jigs or fixtures. Jaws are forged from C-1020 steel and are for application to 3/4 through 1 3/8 inch diameter brake rods.



Vibrator Brackets

Manufactured from C-1035 special bar quality steel to provide maximum strength, vibrator brackets are designed to be used separately or can be welded to a backing plate for bolted or welded application to hopper chutes.

Brake Systems

Miscellaneous (continued)



Brake Rod Cylinder Push Pins

Schaefer brake cylinder push pins are forged from C-1040/1045 special bar quality steel for lightweight and high strength, especially in the jaw area, where reduced weight provides better wear and longer service life. Brake rods exceed AAR requirements.



Air Hose Hanger

Consisting of a five-piece forged and welded unit, the air hose hanger incorporates a ball and socket design that enables the integral 60 degree hose fitting to swing in any direction. Since hose and fittings can move with the coupler, hose kinking, tracking and breaking are reduced. A welding plate attaches completed assemblies to the car. The unit includes a 1 1/4 inch, 60 degree angle fitting for application to cars with long shank couplers and/or sliding center sills. Hangers come in various lengths.



Corner Caps

Forged corner caps are designed to reinforce the corner structures of gondola and open-top hopper cars. Offered in bolted or welded versions, they feature strength, are lightweight and easy to install. Welded corner caps are manufactured from C-1020 steel to facilitate welding. Bolted caps are forged from C-1040/1045 steel for added strength.



Crossridge Bracefeet

Available for 30 and 45 degree slope sheets, Schaefer's Crossridge Bracefeet are designed to be welded to the lower end of standard 3 by 5 inch rectangular tubing, and the assembly to be bolted to the crossridge. Then, when needed, brake replacement is simple and quick. Schaefer Bracefeet meet AAR specification M-126, Grade B.



Coupler Carrier Wear Plates

Coupler carrier wear plates come in either ASTM A-128 austenitic manganese steel or heat-treated C-1040/1045 special bar quality steel. Manganese steel plates are designed for extended service and longer life. In service, metal to metal contact between coupler and coupler carrier wear plate quickly produces a polished, work-hardened surface that is highly resistant to abrasion. The plates meet AAR standards.

Brake Systems

Miscellaneous (continued)



Forged Roping Staple

The drop-forged roping staples are for welded and bolted applications. They are manufactured from C-1020, 1 1/4 inch diameter steel and meet the latest AAR specifications.



Side Frame Keys (Narrow Pedestals)

Side frame keys, made from forged steel for greater strength, prevent roller bearing wheel assemblies from becoming dislodged from side frame assemblies. Schaefer side frame keys confirm to AAR standard S-325.



Truck Bolster Replacement Gibs

Truck bolster replacement gibs are forged from C-1030 steel and are heat treated to 350 B.H.N... They feature 3/8 inch by 45 degree weld chamfers, which provide for weld metal deposition and penetration during application and come in 3 3/4, 4 1/2 and 5 inch lengths. Schaefer's replacement gibs can be installed after burning off the worn truck bolster gibs.



Truck Bolster Replacement Rings

Welded replacements for worn cast truck bolster rings extend the useful life of costly bolsters. These rings are manufactured from C-1030 special bar quality steel and come in 12, 14, 15 and 16 inch diameters. They are offered with flame-hardened inside diameter or can be machined for application of vertical wear liners. Weld configuration can be machined to suit customer requirements.

Services Offered:

- Machining to customize rigging components to specifications
- Custom kitting to your specifications
- Heat treating for added strength and to lessen wear



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ECP BRAKING



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ECP Braking

ECP-4200 Freight Car Braking System

Business Unit: Wabtec Railway Electronics and WABCO Freight Car Products

Wabtec offers an Electronically Controlled Pneumatic braking equipment that integrates electronic and pneumatic communications hardware into one package that instantly responds to locomotive braking commands.

Features / Benefits:

- Wabtec's field-proven ECP braking solutions are AAR-approved under S-4200 series specifications
- ECP options include an overlay to conventional AAR pneumatic brake equipment and a stand-alone ECP manifold
- Allows for simultaneous brake applications, with shorter stopping distances
- Graduated release of brakes
- Supports increased carload capacity and higher average speeds
- Lowers in-train forces and fuel consumption
- Reduces wheel wear
- Application with pneumatic emergency or vent valve
- Mechanical manual release valve
- Single and multi-pack car configurations
- Extended battery life
- Rugged end-of-car connector
- Pneumatic emulation options
- Supports "smart car" sensors



Overlay Manifold



Stand Alone Manifold

ECP Manifold

Mounts on a conventional or single sided air brake pipe bracket, replacing the pneumatic service portion, and provides pneumatic control and sensor functions. The manifold connects to the conventional mechanical manual release rod.

ECP Braking

Miscellaneous



Car Control & ID (CCID) Junction Box

The ECP Car Control Device (CCD) is contained in a field removable lid to a junction box package. The junction box provides termination of car cabling, and houses the Car ID module and battery.



End of Car Connector, with ECP Trainline Cable

- Provides termination to the intercar connector cable



ECP Empty-Load

- Standard ELX sensor arm set-up
- No equalizing volume
- Maximum empty-car brake cylinder pressure is limited to equivalent pneumatic emergency level
- ECP controls empty-car brake cylinder pressure below maximum pressure limit
- Direct graduated application/release control of empty-car brake cylinder pressure

ECP Vent Valve

The ECP Vent Valve is basically a auxiliary venting device similar to Wabtec's other vent valves with one important difference – the sensitivity, signal transmission and 'jump' capability of the standard pneumatic emergency portion is maintained.

ECP Braking

Miscellaneous ECP Components (continued)



Intercar Cable

The ECP Inter-Car Cable and Lanyard is used to connect the 230VDC Trainline between ECP wagons and locomotives. The cable complies with the S-4210 Standard and has been approved by the AAR for use on S-4200 compliant ECP trains. The connector end is designed to allow the cars and locomotives to be easily connected and disconnected. When in operation, the cable and lanyard lengths are specified to pull apart prior to the brake pipe separating to initiate an ECP Emergency.



PNEUMATICS



Pneumatics

ABDX[®] Control Valve

Business Unit: WABCO Freight Car Products

Since its introduction in 1989, the ABDX control valve has undergone numerous improvements to increase service life and make the valve more robust in the demanding and ever-evolving railroad environment.



ABDX control valve with conventional ABX pipe bracket shown with optional four port receiver and #11 port location. This configuration is also available with top and bottom access plates.



ABDX control valve with single-sided pipe bracket and standard four port receiver shown with optional floor-mount brackets. This configuration is also available with a suspension-mount bracket.

Models:

- ABDX for standard cars having 45 – 75 feet of brake pipe
- ABDX-L for cars with 75 feet of brake pipe
- ABDX-SS for non-interchange applications with less than 45 feet of brake pipe

Features / Benefits:

- Available in either the traditional “AB-type” pipe bracket mounting arrangement or mounted on a single sided pipe bracket that places service and emergency portion right in front for easy access
- A valve design that assures precise operating performance and proper brake cylinder pressure under all braking conditions, including the most demanding grade situations
- High reliability and long service life, stemming from continuous, adaptive product improvements combined with Wabtec’s dedication to quality
- Thoroughly tested to demanding standards and serialized for traceability
- Operationally stable for quick response sensitivity while avoiding undesired emergency and/or unintended service brake applications
- Aluminum construction makes them half the weight of cast iron valves and much easier to handle
- Cleaner aluminum castings are alodined for corrosion resistance
- Built-in accommodation available for precise, automatic on-car testing

Reconditioning Service Available in:

- Carson City, NV
- Chicago, IL
- Columbia, SC
- Kansas City, MO
- Montreal, QC, Canada
- San Luis Potosi, Mexico

Pneumatics

4-Port Receivers and Access Plates

Business Unit: WABCO Freight Car Products

4-Port Receiver with optional Brake Cylinder Read Device.

Features / Benefits:

- Wabtec offers 4-Port receivers and a variety of access plates for application with the various pipe bracket mounting arrangements
- The Automated Single Car Test Device helps save time:
 - Over 90% of problems are diagnosed in the first 15 min of testing
 - Average test time is approximately 27 minutes; up to 50% time savings
- Easier failure diagnosis
- Reduces human errors which cause “false failures” that are commonplace in manual testing
- To provide more accurate test results, 4 pressure ports (brake pipe, brake cylinder, auxiliary reservoir and emergency reservoir) are monitored, versus monitoring brake pipe and brake cylinder only in end of car testing



Top 0°



Bottom 45°
with optional Brake
Cylinder Read Device



Top 90°



Bottom 15°



Front



4-Port Receiver
with optional Brake
Cylinder Read Device

Pneumatics

Automated Single Car Test Device

Wabtec offers an Automated Single Car Test Device for 4-Port and traditional end of car testing.

Business Unit: WABCO Freight Car Products

The ASCTD offers significant time and cost savings compared to the traditional way single car tests are performed manually. It's scalable to accommodate future upgrades including ECP testing and its fundamental accuracy in air brake testing improves the road reliability of every car tested.

Features/Benefits:

- AAR approved single car test device
- Hand held user interface
- Compliant with AAR Specification S-4027
- Capable of running both an end of car test or the 4-Port enhanced test
- The efficient 4-Port system provides a precise method for testing freight car air brakes while requiring only half the time of the conventional manual test, and provides a far more comprehensive test
- Greatly improves the accuracy of testing the car brake system by providing a documented record of the results and reduces costly misdiagnosis and the erroneous removal of properly functioning valve portions
- 3 Power Options include 110 volt AC line power, internal battery and 12 volt DC vehicle electrical supply
- Easier program downloads and test results uploads facilitated via a USB flash drive
- Auxiliary power and communication ports for future expansion (ECP testing)



Cart Mount

- Cart mount device for ease of use in shop environment
- Comes with 4-Port hose assembly, brake cylinder hose reel and end of car adapter



Truck Mount

- Includes truck mount rails for hi-rail vehicles
- Comes with 4-Port hose assembly, brake cylinder tubing and end of car adapter

Reconditioning Service Available in:

- Kansas City, MO
- Montreal, QC, Canada

Pneumatics

Automated Single Car Test Device Accessories

Wabtec offers a variety of accessories for the Wabtec Automated Single Car Test Device based on customer needs and requirements.



ASCTD Calibration Kit

- Available for purchase to maintain ASCTD calibration as required



Brake Cylinder Hose Reel

- Standard on cart mount units
- 50 foot hose



Brake Cylinder Tubing

- Standard on truck mount units
- 50 foot hose



End of Car Hose

- Optional 14 or 20 foot hose
- Detachable



4-Port Hose Assembly

- Standard on both cart and truck mount units
- Detachable
- Includes interface connector



End of Car Adapter

- Standard on both cart and truck mount units

Pneumatics

Manual Single Car Test Device

Business Unit: WABCO Freight Car Products

Wabtec offers a manual single car test device for traditional end of car testing.



Features/Benefits

- AAR approved single car test device
- Portable for use in the field
- Filters out excess foreign particles from the air supply entering the test device
- Two stage reducing valve regulates air pressure to test device at either 90 psi or 80 psi as required by the test being performed

Reconditioning Service Available in:

- Carson City, NV
- Chicago, IL
- Columbia, SC
- Kansas City, MO
- Montreal, QC, Canada
- San Luis Potosi, Mexico

Pneumatics

Empty/Load Equipment Offerings

Business Unit: WABCO Freight Car Products

Wabtec offers empty and load equipment designed to optimize the performance of any application.

ELX Type



ELX-S

- Incorporates the sensor function and proportioning function
- Self contained unit mounts to slope sheet
- Available in 30%, 35%, 40%, 50%, and 60% proportioning for use on bulk commodity cars
- Diaphragm actuated, integral equalizing volume
- Includes self resetting lock-out button that simplifies single car testing while ensuring that the device automatically resets when the brake pipe is recharged
- Compliant with AAR specification S-4002
- Available with optional food grade (FDA) diaphragm and Brake Cylinder Read Device



ELX-B

- Sensor arm measures the relationship of the car body to the top of the truck side frame to determine if a car is empty or loaded
- Incorporates the sensor function and proportioning function
- Available in 30%, 35%, 40%, 50%, and 60% proportioning
- Requires detached equalizing volume
- Lightweight and compact design
- Easy setup and adjustment
- Compliant with AAR specification S-4002
- Options include Brake Cylinder Read Device and 4" adjusting screw (3" adjusting screw comes standard)

Reconditioning Service Available in:

- Carson City, NV
- Chicago, IL
- Columbia, SC
- Kansas City, MO
- Montreal, QC, Canada
- San Luis Potosi, Mexico

Pneumatics

Empty/Load Equipment Offerings (continued)

SC-1 Type



S-1 Load Sensing Valve

- Sensor arm measures the relationship of the car body to the top of the truck side frame to determine if a car is empty or loaded
- Regulates air flow to the P-1 Load Proportional Valve when a car is empty
- Compliant with AAR specification S-4002



P-1 Load Proportioning Valve

- Proportions brake cylinder pressure on an empty car at either 50% or 60% of a loaded car
- Compliant with AAR specification S-4002



Equalizing Reservoir

- Equalizing reservoir used in conjunction with body mounted empty/load systems
- Small reservoir which provides a pressure balance with the brake cylinder upon an empty car brake application
- The reservoir is sized to match the proportioning ratio of the empty/load device

Reconditioning Service Available in:

- Carson City, NV
- Chicago, IL
- Columbia, SC
- Kansas City, MO
- Montreal, QC, Canada
- San Luis Potosi, Mexico

Pneumatics

Cocks, Hoses and Couplings

Business Unit: WABCO Freight Car Products

Wabtec offers Dynaball brake pipe end cocks, angle cocks, and dirt collector cutout cocks.



Angle Cocks

- Wabtec offers angle cocks with a Teflon-coated ball to provide smooth, effortless hand movement
- Rubber seals within Wabtec's angle cocks are self-lubricating, self-cleaning and self-adjusting to reduce leakage and can be replaced quickly
- The cock provides a means for the manual closing of the brake pipe, as on the end of the last car of a train consist, and the continuation of the brake pipe between coupled cars by the connection of an attached brake hose assembly



End Cocks

- Designed for use on specific rail vehicles where the standard brake pipe angle cock cannot be used, and where the air pressure and the equipment arrangement does not exceed 150 psi
- The cock provides a means for the manual closing of the brake pipe, as on the end of the last car of a train consist, and the continuation of the brake pipe between coupled cars by the connection of an attached brake hose assembly



Dirt Collector Cut Out Cocks

- Enables manual cutout of brake pipe airflow to the control valve without affecting the flow to other cars
- Provides a means for removing large pieces of dirt, gravel, sand and other foreign materials before they can reach the control valve
- Provides a local sump to collect brake pipe-precipitated moisture

Hose & Couplings

- Wabtec offers AAR compliant hoses and couplings including end of car hoses, brake cylinder hoses, and empty / load hoses
- Withstands temperature extremes, in-service shocks and external forces
- Not reconditionable

Reconditioning Service Available in:

- Carson City, NV
- Chicago, IL
- Columbia, SC
- Kansas City, MO
- Montreal, QC, Canada
- San Luis Potosi, Mexico

Pneumatics

Brake Cylinders

Business Unit: WABCO Freight Car Products

Aimed at improving our ability to support customer orders with shorter lead times, Wabtec introduced the new universal brake cylinder, available in 10" and 8 1/2" sizes.

Features/Benefits Brake Cylinders

- Available in 10" and 8 1/2" sizes with one part number for each cylinder size
- Incorporates three air flanges with the universal non-pressure head
- Can be oriented in four different mounting positions
- Better inventory control and greater flexibility in product usage



10" Brake Cylinder



10" Deep Drawn Brake Cylinder



8 1/2" Brake Cylinder

Reconditioning Service Available in:

- Carson City, NV
- Chicago, IL
- Columbia, SC
- Kansas City, MO
- Montreal, QC, Canada
- San Luis Potosi, Mexico

Pneumatics

Miscellaneous

Business Unit: WABCO Freight Car Products

WABCO Freight Car Products manufactures a variety of freight brake devices including various venting devices.



Reservoir – Combined Auxiliary and Emergency

- Compliant with AAR specification S-494 (standard and large sizes)
- All reservoirs designed according to ASME Boiler and Pressure Vessel Code, Section VIII, Division 1
- The fabricated one piece design has two attachment lugs on the auxiliary side and one lug on the emergency side to ensure proper application on the freight car



Brass

Retaining Valve

- Offering brass and composite retaining valves to suit your needs
- Compliant with AAR specification S-446
- Three position manually operated valve to either allow direct air flow from the brake cylinder on a brake release or retain air in the brake cylinder on a release depending upon the positioning of the handle
- Floor and suspension mounting options



Composite

Reconditioning Service Available in:

- Carson City, NV
- Chicago, IL
- Columbia, SC
- Kansas City, MO
- Montreal, QC, Canada
- San Luis Potosi, Mexico

Pneumatics

Miscellaneous (continued)



Vent Valve

- Used on long cars (>75' of brake pipe), the VX vent valve provides an auxiliary means of venting brake pipe during an emergency braking application
- Assists in transmitting an emergency braking signal, by venting brake pipe locally



Flange Fittings

- Welded and threaded offered
- Flange fittings comply with AAR specification S-400



Brake Cylinder Pressure Taps

- Dual seal to protect from leakage
- Various fittings to install the taps in the brake cylinder air line such as:
 - Saddle mount fittings
 - Flange fittings
 - Sandwich plate style flange fittings
 - Blanking pad style flange fittings
- Also available as option on 4-Port Receiver



Branch Pipe Tees

- Branch pipe tees comply with AAR specification S-400



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ENERGY MANAGEMENT



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Energy Management

Hand Brakes

Business Unit: Cardwell Westinghouse

Wabtec designs and manufactures Universal brand lever-type and wheel type freight car hand brakes.



Vertical Wheel Type

9300, 9300-3, and 7500

- AAR approved Interchange Rule 13, Group N
- Minimum force 3350 lbs.
- Chain travel - 18"
- Weight – 63 lbs.
- Available in short, long, or no quick release handle

4493 and 4493-3

- AAR Approved Interchange Group O
- Minimum force 4475 lbs.
- Chain travel - 40"
- Weight – 71 lbs.
- Available in short or long release handle

Continuous Release CRX Hand Brake

9300 CRX, 9300-3 CRX and 4493 CRX

- Apply with hand wheel, gradual release with hand wheel, quick release with full release handle to activate continuous release feature
- No visible operational differences between Groups Q & R vs. Groups N & O
- Quick release activates the continuous release feature
- Reverse wind stop
- Helps extend wheel life
- Eliminates the potential of partially released hand brakes causing car and wheel vibration damage

Energy Management

Hand Brakes (continued)

Lever Type



Model 9033

- AAR approved Interchange Rule 13, Group V
- Minimum chain force: 3350 lbs.
- Chain travel: 16 1/2"
- Weight: 76 lbs.



Model 9020

- Thin line lever type
- Below deck mounting on TOFC / COFC
- AAR approved Interchange Rule 13, Group U
- Minimum chain force: 4900 lbs.
- Chain travel: 16 1/2"
- Weight: 72 lbs.



Model 9017

- Thin line lever type
- Above deck mounting on TOFC / COFC
- AAR approved Interchange Rule 13, Group T
- Minimum chain force: 3350 lbs.
- Chain travel: 16 1/2"
- Weight: 71 lbs.

Reconditioning Service Available in:

- Chicago, IL

Energy Management

Slack Adjusters

Business Unit: Cardwell Westinghouse

Wabtec designs and manufactures self adjusting slack adjusters.

Features / Benefits:

- Offering Universal Slack Adjusters
- Tension and compression
- Double acting – takes up or pays out slack, self adjusting
- AAR approved, used in conventional body and truck mounted brake systems
- Also offering custom slack adjusters and replacements for Triax



2300-DJ

- Body mounted style
- AAR Group E



C1000

- TMX – UBX style
- AAR Group O



Model 5

- TTX truck mounted brake
- AAR Group L



Model 5D

- Thrall/Davis truck mounted brake
- AAR Group M
- Replaces Triax model 3356



Model 85A

- WABCOPAC II style
- AAR Group P

Reconditioning Service Available in:

- Carson City, NV
- Columbia, SC
- Montreal, QC, Canada
- San Luis Potosi, Mexico

Energy Management

Draft Gears

Business Unit: Cardwell Westinghouse

Wabtec designs and manufactures Mark-series draft gears.

Features / Benefits:

- Self contained and precompressed for easy application to new cars with 24 5/8" standard pockets
- Remaining gear life can be measured in the car without removal of the draft gear



Mark 50

- All steel, high performance in any operating environment
- Well suited for all railcar types with 24 5/8" pocket and 3 1/4" travel, up to 286,000 lbs. GRL
- First draft gear to receive unconditional approval under AAR Spec M-901E
- AAR rating capacity – 38,940 ft. lbs.
- M-901E Specification
- Weight - 386 lbs.
- Group J, Rule 21



Mark 70E

- All steel friction draft gear
- Fits 24 5/8" standard pocket
- For all general freight car types up to and including 286,000 lbs. GRL
- M-901E Specification
- AAR rating capacity - 40,171 ft. lbs.
- Weight - 312 lbs.
- Group J, Rule 21
- 3 1/4" travel



Mark R-500

- Rubber friction draft gear transfers wear and stress to replaceable, energy absorbing components
- Self contained and precompressed for easy application to new cars with 24 5/8" standard pockets
- Remaining gear life can be measured in the car without removal of the draft gear
- AAR rating capacity – 38,940 ft. lbs.
- Weight - 384 lbs.
- 3 1/4" travel
- Group J, Rule 21

Energy Management

Draft Gears (continued)

Business Unit: Cardwell Westinghouse



Mark 75 G

- All Steel Friction Draft Gear
- Fits 24 5/8" Standard Pocket
- For All Car Types Including Multi Platform, Intermodal Units, and 125-Ton Cars
- M-901G Specification
- Max Impact Velocity: 6.49 MPH
- Weight - 312 lbs.
- Group K, Rule 21
- 3 1/4" travel



Mark 558

- All Steel Friction Draft Gear
- Fits 24 5/8" Standard Pocket
- Multi-Platform
- Intermodal Units
- M-901G Specification
- Rating Velocity: 5.58 MPH
- Weight - 363 lbs.
- Group K, Rule 21
- 3 1/4" travel

Hydrojack II® Draft Gear Removal Device

- Hydraulic jacking tool
- Specifically designed for the installation and removal of draft gears in standard AAR 24 5/8" and 36" draft gear pockets
- Includes hand-operated hydraulic pump with capacity to compress a draft gear with a 159,000 lb, theoretical force, based upon 10,000 psi hydraulic pressure, and has a nominal stroke of 2"
- Designed to engage the standard AAR "E" type draft key slots in the draft yoke for support and apply its compressive force to the draft gear through the follower
- Adapters available for "F" types as well as rotary adapters



Reconditioning Service Available in:

- Chicago, IL

Energy Management

Yoke & Followers

Business Unit: Cardwell Westinghouse



SY40AE Type Yoke

- Short E Type
- AAR Interchange Rule 19 Yoke
- Weight 196 lbs.

Y44 Follower

- 2 1/4" Thick
- Weight 70 lbs.

Y46AE Follower

- 2 1/4" Thick
- Weight 74 lbs.

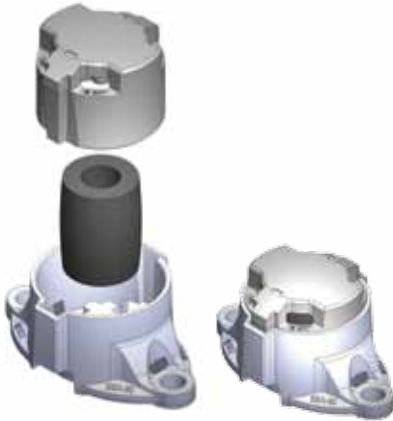
Energy Management

Constant Contact Side Bearings & Elements

Wabtec Business Unit: Cardwell Westinghouse

Wabtec recently introduced a new series of AAR M-948-2006 approved, premium device SBX Constant Contact Long Travel side bearings and elements.

SBX Model Type



SBX-30, SBX-45, SBX-60, and SBX-80

- 5/8" long travel side bearing
- Custom vented top cap for lower operating temperatures
- Available in four preloads to fit all car types: 3000, 4500, 6000, and 8000 lbs.
- Top cap metallurgy provides consistent friction as well as superior wear characteristics
- Elastomeric spring designed for consistent performance and vertical damping over an extended temperature range
- Tightly machined interface for additional control and extended life

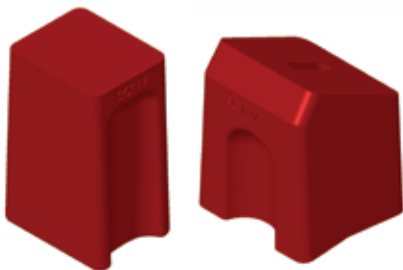
SBX Type Elements



6474, 6479, 6484, 6489

- Elastomer spring designed to exceed performance of OEM elements
- Available in four preloads: 3000, 4500, 6000, and 8000 lbs.
- Will provide consistent performance over an extended temperature range

Resilient Blocks



SCT-9, SCT-11, SCT-14, SCT-17, SCT-24, SCT-27

- Available in three preloads: 3000, 5400, and 6000
- Easily replaces all Stucki type resilient blocks

Energy Management

SAC-1™ Spherical Articulated Couplings

Business Unit: Cardwell Westinghouse

Wabtec offers a semi-permanent connection coupling system that features low maintenance self-lubrication design. Designed to maintain a slack-free connection, the SAC-1™ eliminates the need to stop cars for lubrications and readjustments of side bearing heights. Made for today's competitive transportation market, it offers substantial weight savings, improved car handling and reduced operating costs.



Available in 14" Center Plate and 16" Center Plate designs

- Positive slack-free connection
- Reduces side-bearing height adjustments caused by connector wear
- May be used in 70-, 100-, or 125-ton trucks, and can be used as a retrofit
- Horizontal travel $\pm 22^\circ$
- Unique wedge design simplifies coupling and uncoupling of cars and completely eliminates slack
- Designed and tested to 1,250,000 pounds buff load and 630,000 pounds draft load
- Vertical travel $\pm 11^\circ$ eliminates uncoupling and recoupling during wheel changeouts and required maintenance

Energy Management

End of Car and Center Car Cushioning Devices

Business Unit : Wabtec Global Services

Wabtec offers end of car and center car cushioning devices and reconditioning services.



Freightmaster

- A gas pre-charged hydraulic cushion unit for use in new cars or as a replacement for older units
- Replacement for any existing cushioning system
- M921B Certified unit for use in freight applications
- Offering units certified to both M-921B and M-921D
- Designed to protect lading by reducing yard and transit impact forces

Reconditioning Service Available in:

- Kansas City, MO



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WEAR AND LADING PROTECTION



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Wear and Lading Protection

Brake Beam Guides

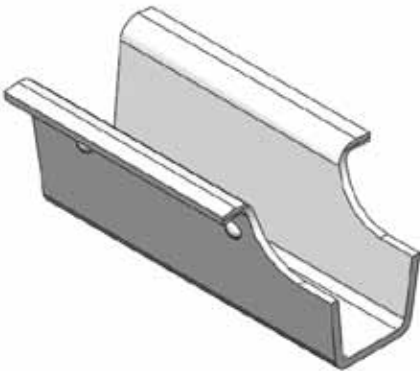
Business Unit: ZefTek

Offering Brake Beam Guides made from ZefTuf® CFR-P material that incorporates the benefits of superior cold flow and impact resistance needed for today's demanding rail environment.

Features / Benefits:

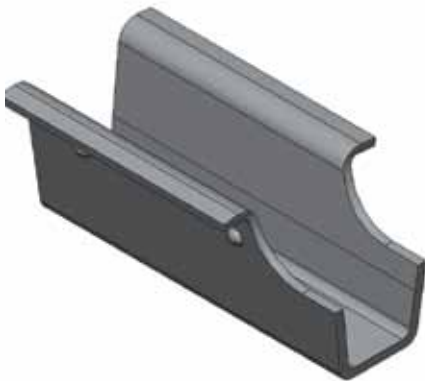
- Compatible with brake beams from any manufacturer
- Improve brake shoe life
- Reduce brake beam maintenance and head extension wear
- Improve overall braking performance
- Functions in temperatures from 250° F to -50° F

ZefTek Brake Beam Guides



ZT-1696NH (Standard)

- Replaces AAR Standard S-367, Holland WE-5500, Holland WE-5505
- Grey



ZT-1696B (Heavy Duty)

- Thicker walls for high mileage cars and a longer life cycle
- Replaces AAR Standard S-367, Holland WE-5500 XL
- Black

Wear and Lading Protection

Center Bowl Liners and Wear Plate Protectors

Business Unit: ZefTek

As a leader in non-metallic wear protection technology, Zeftek solved ongoing problems of premature “cold-flow” in bolster bowl liners while maintaining a coefficient of friction well below that of steel in comparison to steel competitive products.

ZefTuf® Cold Flow Resistant - CFR



ZT-380, ZT-381, ZT-370, ZT-371

- Available in ZefTuf® CFR material for lower friction
- Designed to improve curving and lateral stability performance of truck systems
- Integrally molded carbon ring provides consistent conductivity over the life of the liner
- Coefficient of friction of .17 Static / .12 Dynamic
- Meets AAR Requirements S-3004 and M-976

ZefTuf® Cold Flow Resistant - CFR-P (Premium)



ZT-350, ZT-351 and ZT-560

- Available in ZefTuf® CFR-P material for superior cold flow resistance and higher friction
- Designed to improve curving and lateral stability performance of truck systems
- Integrally molded studs provide consistent conductivity over the life of the liner
- Coefficient of friction of .33 Static / .27 Dynamic
- Meets AAR Requirements S-3004 and M-976

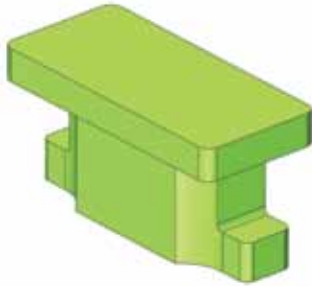
Wear and Lading Protection

Coupler Carrier Wear Protectors

Business Unit: ZefTek

Wabtec offers a variety of coupler carrier wear protectors to protect against coupler shank wear.

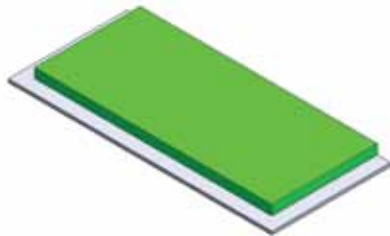
ZefTuf® Flexible Coupler Carriers for 'F' Type Draft Sills



ZT-360

- Eliminate coupler shank and draft sill basket wear
- Weighs over 40 pounds less per car set than steel carriers
- Requires no lubrication
- Available in four sizes for varying coupler height requirements

ZefTuf® Coupler Carrier 'Weld-On' Wear Protectors



ZT-326 Series and ZT-327 Series

- ZefTuf® bonded to A-36 steel for easy weld-on application without removing the coupler
- Eliminates coupler shank inspection, maintenance and reconditioning costs of conventional coupler carrier wear plates
- Provides superior cold flow and impact resistance

ZefTuf®-G Coupler Carrier 'Drop-In' Wear Protectors



ZT-215, ZT-215-T and ZT-217

- Requires no lubrication and eliminates inspection, maintenance and replacement costs associated with conventional coupler carrier wear plates
- ZefTuf® 'G' material provides superior cold flow and impact resistance
- Multiple thicknesses offered- 3/8", 1/2", 5/8"
- Locking tab keeps the wear plate securely centered

Wear and Lading Protection

Brake Rod Wear Protectors and Liners

Business Unit: ZefTek

Wabtec offers a variety of wear protection solutions that improve operating performance and reduce maintenance costs.

Brake Rod Wear Protector



- Available in 12, 18, and 24 sizes
- Welded directly to the brake rod to prevent metal to metal contact and subsequent wear between brake rods, hangers, axles, and truck bolsters, ZefTek protectors fit 3/4" to 1" diameter rods
- Provides a flat 1 5/16" bearing surface that lasts the life of the car

Release Rod Wear Protector



ZT-377

- The two piece ZefTuf Release Rod Wear Protector assembly is affixed to the vertical release rod bracket to prevent metal to metal contact and subsequent wear between the release rod and the bracket
- Requires minor modification to the standard vertical release rod brackets, slot opening must be drilled or punched to a 1.525" diameter hole

Brake Hanger Wear Protectors



ZT-151-96, Square Cut, 96" long, 3.5 lbs

- Snap on unit / no welding
- Fits all freight car types to protect brake rods and support hangers from metal to metal wear
- Available in standard sizes or 96" long units that can be custom cut to your required length
- Clips onto 3/8" x 1 1/2" thru 3/4" x 1 1/2" and 1/4" x 2" thru 1/2" x 2" brake rod hangers

Wear and Lading Protection

Miscellaneous Components

Business Unit: ZefTek and Schaefer Equipment

Wabtec offers a variety of wear prevention solutions that improve operating performance and reduce maintenance costs.

ZefTek® Plastic Pellet Hatch Covers



ZT-450 (Vented), ZT-451 (Non-Vented)

- Plastic Pellet Hatch Covers
- Offering vented, non-vented, and vent-on-demand 20" pellet car hatch covers
- Made from FDA approved UV stable materials
- Utilizes quick adjust safety latch
- Includes gasket designed to provide a leak proof seal that can be replaced in minutes
- The hatch cover screen on the outside periphery prevents contamination
- The underside pellet screen stops pellet entry during loading

ZefTuf-HD CoilGard® Crossbar Liners



ZT-140 Series

ZefTuf®-HD CoilGard® Crossbar Liners eliminate across-the-coil damage caused by restraining devices during shipment.

- Available in standard widths of 4 1/2" and 5 1/2" x 66" long
- Custom applications and lengths

Brake Rod Splice



- Allows for easy field replacement of worn, broken or bent brake rods.
- Schaefer type features one piece design, simply wrap the splice around the repair joint and weld
 - Available in 3/4"-7/8" rods and 1" – 1 1/8" rods
- Two Zeftek ZT-368 splices are welded together to join the existing brake rod and new brake rod section to restore rod integrity
 - Use on 3/4" and 7/8" brake rod diameters
- Available as complete assembly or individually



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Friction Products

Brake Shoes

Business Unit: Railroad Friction Products Corporation

Railroad Friction Products Corporation manufactures COBRA® high-friction and low-friction composition brake shoes.

TreadGuard®

Developed by Railroad Friction Products Corporation to address the problem of wheel removals due to shelling, spalling, and high impacts, TreadGuard® brake shoes have been proven as an effective method to increase wheel life since 1999. Recently introduced to provide better braking performance in high capacity applications, the new COBRA® TreadGuard® HiCap™ brake shoe offers all the benefits of TreadGuard® plus improved resistance to brake fade on long grades. Designed for today's heavier cars with higher net braking ratios, TreadGuard® HiCap™ maintains it's cool under the most severe conditions and provides the same friction as standard brake shoes throughout the normal range of braking duty.



Features/Benefits:

- Extended wheel life through continuous "cleaning" of wheel tread
- Reduces high impact readings by removing minor tread defects before they become condemnable defects
- Advanced performance design
- Reduces wheel set inventory with fewer wheels removed for tread related defects
- Reduces out of service time for premature wheel failures
- Longer shoe life

TreadGuard® HiCap™

- Performance approved to the new AAR Specification M-997 Brake Shoe High Friction Tread Conditioning - High Capacity
- Lower wheel operating temperature offering a "cooler" operating brake
- "Fade resistant" for heavy grade application
- Higher capacity tons per operative brake



COBRA® Freight Shoe

- Advanced Performance™ Design
 - Reduces the potential of rim over-ride
 - Reduces the potential of flange contact
- Optimized fit over a range of wheel sizes
 - Dual Radius Face
 - Chamfered Ends
 - Prevents end breakage & chipping
 - Faster full face contact



COBRA® AAR Low Friction Freight Shoe

- Direct replacement for cast iron



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TRUCK COMPONENTS



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Truck Components

Barber® Side Frame and Bolster Castings

Business Unit: Standard Car Truck

As a leader in providing stabilization systems for freight cars, Standard Car Truck offers bolster and side frame castings.



Features / Benefits:

- Designed and tested by Standard Car Truck to meet or exceed AAR M-202 / 203 Standards
- Manufactured in AAR M-210 and M-1003 Approved Foundries under Standard Car Truck supervision
- Inspection / process monitoring exceeds AAR Requirements
 - 100 % Magnetic Particle inspected for cracks (no AAR Requirement)
 - 100 % Gaging (AAR requires sampling only)
 - Detailed Product Quality scoring system
- 15 year successful service history

110 T Trucks for M-976 / S-286 Service

- S-2-HD 9 Coil (M-976 Approved)
- S-2-HD 6 Coil – Low Profile (M-976 Approved)
- S-2-E 917 Integral Wedge (M-976 Approved)
- S-2-E 945 Split Wedge (S-286 Approved)

Other Gross Rail Loads – Intermodal and Other Service:

- 125 T S-2-HD
- 70 T S-2-C

Truck Components

Barber S2-86® Radial Adapter

Business Unit: Standard Car Truck

The Barber S2-86® Radial Adapter primary suspension system provides passive semi-radial steering performance. A single layer of rubber bonded between two steel plates and situated above the bearing adapter allows for radial alignment of the wheelsets during curving, which reduces rolling resistance, improving rail and wheel life.



Features / Benefits:

- M-976 track tested and approved on a variety of trucks
- Tested and approved under M-924 roller bearing adapter specification
- Fits standard AAR pedestal - no special side frames required
- Utilizes standard M-924 features, like the bearing adapter roof recess
- Durable vulcanized rubber to steel bond
- Rubber Maintains properties over wider temperature range than other polymers
- Resilient rubber surface provides better load distribution across pedestal roof discontinuities
- Grounding wire provides more reliable electrical continuity than studs
- Rejection lugs prevent misapplication

Truck Components

Friction Wedges

Business Unit: Standard Car Truck

Standard Car Truck pioneered the design of variably damped, Barber suspension systems and offers friction wedges to provide optimum damping and wear performance when used in Barber type suspensions.



Barber Integral Iron Wedges

- Commonly used on all Barber designed trucks
- Solid piece cast iron wedge



Barber Iron Split Wedges

- Interchangeable to all Barber Truck designs as a replacement to the traditional single piece wedge
- Split wedges increase truck warp resistance (squaring) versus traditional single piece wedges, providing improved high speed stability and curving performance without compromising vertical damping



Barber LifeGuard™ Wedge

- Interchangeable with Barber Truck designs S-2-A, S-2-B, S-2-C, S-2-D, S-2-HD, and S-2-HD-9C as a replacement to the traditional single piece wedge
- Polymer faced wedge significantly reduces bolster pocket wear from both the slope surface and side walls to prolong pocket life

The highest deformation temperature of any polymer material, 350°



Barber TwinGuard™ Wedge

- Interchangeable to all the Barber Truck designs S-2-B, S-2-C, S-2-HD, and S-2-HD-9C as a replacement to the traditional single piece wedge
- Polymer faced wedge significantly reduces bolster pocket wear from both the slope surface and side walls to prolong pocket life

Barber Steel Wedges for ASF Type Trucks



SCT 17815

- For 100 ton ride control, pattern 17815



SCT 17803

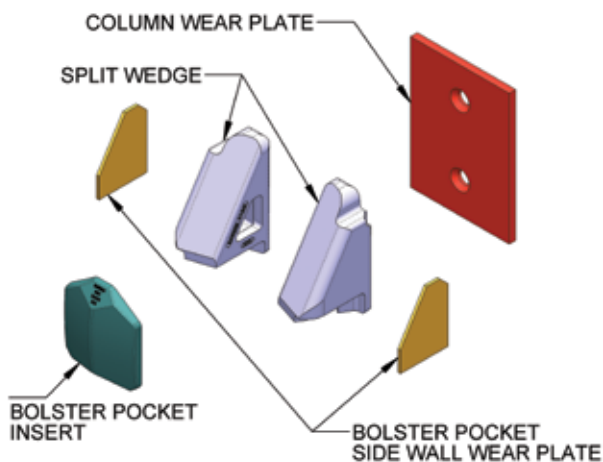
- For 70, 100, and 125 ton ride control, pattern 17803

Truck Components

Snubbing

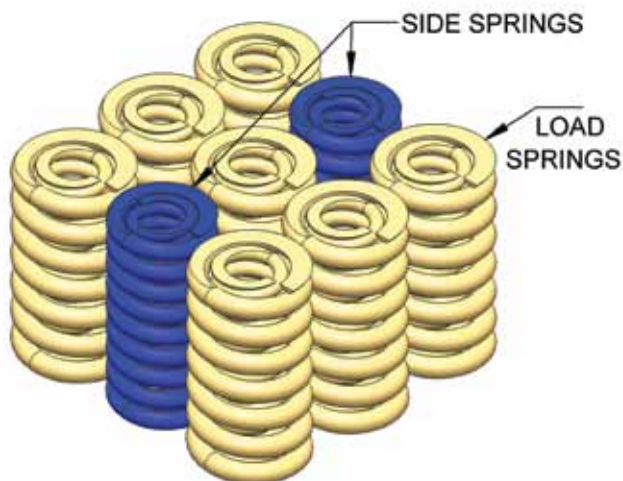
Business Unit: Standard Car Truck

As the originator of variably damped snubbing, Standard Car Truck's Barber™ products have been tested, adapted and refined through decades of lab work and field experience to ensure component durability and proper damping operation to protect cars and lading.



Bolster Pocket Wear Plates and Inserts

- Standard Car Truck offers a variety of M-976 approved snubbing options
- On many designs wedges can be removed from pockets without special tools and without disassembly of the truck, allowing for easy replacement of wedges and column wear plates
- Side wall wear plates and split wedge inserts are easily replaceable, avoiding the need for costly and time consuming re-welding of pocket surfaces during reconditioning
- Most older trucks may be upgraded to the Barber Split wedge system simply by adding an insert to the pocket



Springs

- Side Springs
- Load Springs
- Barber 976-AAR Spring Groups

Truck Components

Miscellaneous

Business Unit: Standard Car Truck

Standard Car Truck offers premium OneSteel MicroAlloy Wheels and axles for freight cars and a variety of components for suspension systems.



Wheels

- Manufactured to AAR M-107/208 standards
- Forged Wheel
- Rim Quench and temper
- Microalloyed with vanadium
- Improved wear resistance
- Improved resistance to thermal damage
- Two Grades "Micro C" and "Micro B"
 - "Micro C" used for freight cars
 - 40–60 % Wear Reduction and zero failures



Axles

- Manufactured to AAR M-101 standards
- Available in rough or finish machined



Self Locking Knuckle Pins

- Direct replacement for AAR C-10 pins
- Non-metallic with grooved shear points to reduce pin fatigue
- 88% lighter than steel alternative
- Safe for thaw sheds, can withstand temperatures from 160° F to -60°F
- Self locking tabs require no tools or cotter pin for application
- Easy to install, takes less than one minute
- Knuckle pin removal tool also offered



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TELEMETRY SYSTEMS



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Telemetry Systems

End of Train Device – EOT

Business Unit: Wabtec Railway Electronics

Wabtec offers Trainlink telemetry systems providing a critical link to last car information such as brake pipe pressure, motion status, battery condition and marker light status.



Trainlink™ 4G ATX

- Improved reliability
 - Internal foam isolation system
 - Rubberized handle absorbs impacts without damage
 - Fewer parts and fewer electrical connections
- New long life generator
- Durable lightweight plastic enclosure with internal antennas
- Ritron radio does not require annual calibration, operates on narrow band frequencies and is capable of 8 watt output
- ATX air generator fully operates EOT and charges battery backup
- GPS tracking available without any additional external antennas needed, including based tracking tools and customized data feed availability



Trainlink™ ATX

- Fully synthesized radio
 - No annual calibration
 - Narrow band operation
- Field proven reliability
- Air generator fully operates EOT and charges backup battery
- Rugged antenna withstands abusive handling
- F-Coupler compliant
- GPS cellular tracking
 - Digital cellular modem with GPS capability
 - No external antennas
 - Retrofittable to all EOTs
 - Web based tracking tools

Reconditioning Service Available in:

- Columbia, SC
- Montreal, QC
- Kansas City, MO
- San Luis Potosi, Mexico



Wabtec[®]
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AUTORACK PRODUCTS



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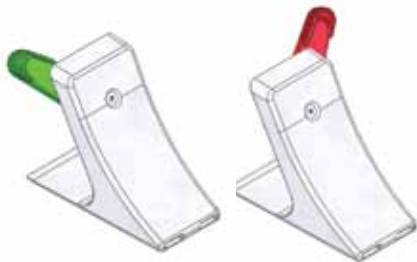
Autorack Products

Chocks

Business Unit: ZefTek & Standard Car Truck

Wabtec offers a variety of vehicle securement systems to protect against damage during transfer.

Auxiliary Vehicle Restraint



ZT-570-GRN and ZT-570-Red

- Supplemental device used in conjunction with the IEC Holden Chock System
- Reduces longitudinal movement of the vehicle
- Eliminates damaging vehicle accelerations
- Lightweight design is fast and easy to apply

Lo-Pro™ Polymer Chock



6400-R and 6400-L

- Designed for application on conventional tri-levels and other specialty bi and tri level autoracks
- Lo-profile design addresses reduced underbody clearances of existing and future vehicle designs
- New anchor chock design requires adjustment of only one chock, simplifying the loading process
- New fold over captivation strap reduces ratchet counts required during tie down for faster installation
- J-Hook and cleats integrated onto a single strap
- Easy foot lever release
- Fully reconditionable

Co-Poly™ Chock:



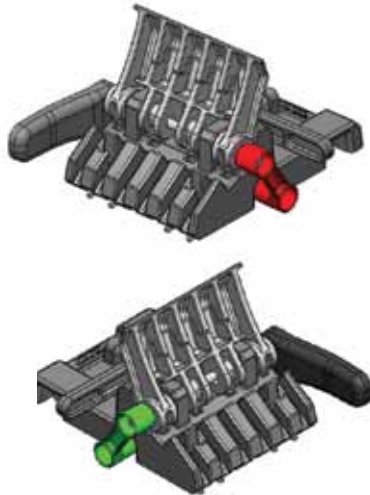
5635-11 and 5635-12

- Industry standard since the early 1990's
- Easy Application
- Available with basket or single strap configuration
- Easy foot lever release
- Fully reconditonal

Autorack Products

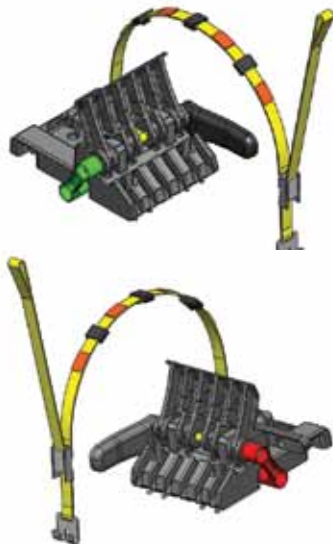
Chocks (continued)

Business Unit: ZefTek & Standard Car Truck



Sta-Put™ Chock ZT-625-GRN and ZT-625-RED

- Designed for application bi-levels and other specialty bi and tri level autoracks
- Prevents longitudinal movement of vehicles during transit
- Lo-profile design addresses reduced underbody clearances
- Three adjustable height settings
- Supports a broad range of vehicle weights and tire sizes
- Ergonomic design that is easy to apply
- Seamless integration with current chock system infrastructure
- 100% field repairable



Sta-Put™ Chock With Strap ZT-625-RED-FX and ZT-625-GRN-FX on conventional

- Designed for application bi-levels and other specialty bi and tri level autoracks
- Prevents longitudinal movement of vehicles during transit
- Lo-profile design addresses reduced underbody clearances
- Three adjustable height settings
- Supports a broad range of vehicle weights and tire sizes
- Ergonomic design that is easy to apply
- Seamless integration with current chock system infrastructure
- 100% field repairable
- Supplemental tether strap permanently affixed

Reconditioning Service Available in:

- Strongsville, Ohio

Capabilities:

- Co-poly Chock
- Lo-Pro Chock
- Sta-Put Chock
- Thrall / Trinity Style Chock
- Holden Grate Lock Chock

Autorack Products

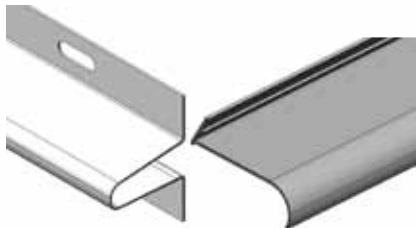
Edgegard® II Door Protection System

Business Unit: ZefTek

ZefTek offers a robust door edge protection system to protect against damage to a broad range of vehicle door profiles.

Features/Benefits:

- Universal applications designed for bi and tri level autoracks regardless of car manufacturer, including articulated bi and tri levels
- Offering the widest area of post protection regardless of load configuration
- Made from an engineering grade polymer that withstands the elements
- Offering quick and simple installation with patented push-in fasteners
- Side Screen profiles require no tools for installation
- Meets or exceeds AAR requirements
- Zero moisture absorption
- Maximum amount of UV inhibitors added to material
- Fully recyclable



Side Screen Profiles

- 100" or 64" Side Screen Profile or "C" Deck Roof Profile



Post DBL Plastic Straps

- Straps available in 8, 16, 23, 30, 37, and 45 inch sizes



Adhesive Backed Foam

- Available in a variety of sizes



Roof Clips, Push-in Fasteners and Button/Fastener Removal Tool

Autorack Products

Miscellaneous

Business Unit: ZefTek

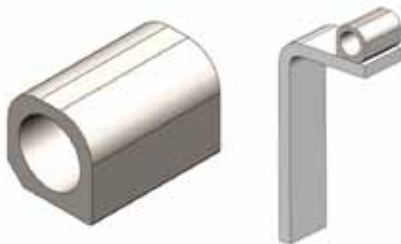
ZefTek offers a variety of products designed to protect vehicles during rail transit or during the loading and unloading process.



Plastic Chock Tip for Trinity/ Thrall Steel Chocks

ZT-717-P-LH, Left Hand and ZT-717-P-RH, Right Hand

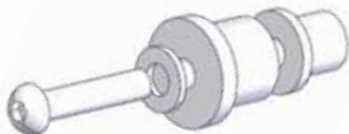
- Prevents vehicle damage during the loading and unloading process
- Manufactured from the same durable material as the Edgegard® II Door Protection
- Fastening options including glue, glue and rivet, self-drill / tap screw, wire tie, or captive clamp
- Center boss extends into the chock end for greater securement
- Robust tip compared to rubber for extended life
- Non-marring, UV stabilized



Bridge Plate Supports

ZT-679 (Barrel) and ZT-497 (Inner Nipple Support)

- Meets AAR specifications
- All styles available upon request



Chock Strap Hanger Assembly

ZT-666-AS

- Designed for use with tri-level chocks to hang chock or strap
- Attaches to the side screen from the interior of the railcar

Autorack Products

Miscellaneous (continued)



Autorack No-Lube Door Guides

- Serves as a permanently lubricated door guide for radial end doors on bi-level and tri-level Autorack cars
- ZefTuf® material eliminates steel-on-steel wear and improves door operation



Standard J-Plates for Autoracks

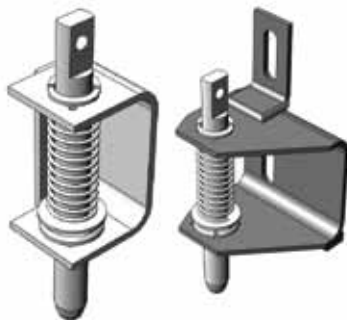
ZT-692 and ZT-694

- Offering outer and inner plate types
- Direct replacement for steel J-Plate



No Lube J Plates for Autoracks

- Offering outer and inner J-plate types
- Incorporates a ZefTuf® self-lubricating bushing, created specifically for radial and SealSafe™ doors
- Eliminates underside door track lubrication and wear
- Improves door operation



No Lube Autorack Door Locks

- Self-lubricating ZefTuf®-HD material eliminates grease contamination of interiors, reduces door lock maintenance and improves door operation
- Never needs lubrication
- Eliminates worn and broken roll pins
- Lock pins, springs, washers, and roll pins interchangeable with existing lock designs



Wabtec[®]
CORPORATION

RUBBER PRODUCTS



FREIGHT CATALOG www.wabtec.com
1-888-264-0011
info@wabtec.com

Rubber Products

Miscellaneous

Business Unit: Durox and Wabtec Rubber Products

Wabtec Rubber Products and Durox offer a variety of rubber products for freight car equipment.



Air Brake Valve Repair Kits

- ABD
- ABDX
- ABDX Vibration Upgrades



Brake Cylinder Packing Cups

- ABU Freight Car Brake Cylinders (New Nitrile Rubber Compound)
–8 1/2" and 10" sizes

TMX Brake Cylinders

- 7", 8" and 9 1/4" packing cup sizes

AB Valve Mounting Gaskets

- Service Portion Gasket
- Emergency Portion Gasket

Extruded Rubber Capabilities

- Box Car Door Gaskets
- Trough Cover Gaskets

Various Pipe Fitting Flange and Hose Coupling Gaskets & Seals

Custom Rubber Solutions

- As a railway industry leader, Wabtec can custom engineer solutions to meet your needs
- Wabtec's team has expertise in new product development, Patent Law, Computer Aided Design, and analysis



Wabtec[®]
CORPORATION

SERVICES



FREIGHT CATALOG

www.wabtec.com
1-888-264-0011
info@wabtec.com

Services

Chock Reconditioning

Business Unit: Durox

Wabtec offers chock reconditioning service at our Strongsville, Ohio location.

Features/Benefits:

- Wabtec reconditions chocks by thoroughly cleaning, inspecting, and equipping them with new straps
- Wabtec replaces worn parts are replaced with new before upgrading the devices with our latest patent-pending, proprietary enhancements, assuring the best reconditioned chocks available
- Steel bodies are sand-blasted then powder-coated, creating a clean durable finish that is corrosion resistant.



Before



After

Standard Car Truck and ZefTek Type Chocks

- As the OEM manufacturer, Wabtec reconditions Standard Car Truck Co-Poly chock, Lo-Pro, and Sta-Put chocks



Before



After

Holden Grate Lock Type Chocks



Before



After

Thrall / Trinity Type chocks

- Steel and plastic types

Services

Education

Business Unit: Wabtec Global Services

Wabtec Global Services offers training seminars and material geared toward educating railway personnel of the operation and maintenance of rail equipment.



Freight Air Brake Training Seminars

Wabtec's Freight Air Brake Training meets AAR S-486 and FRA specifications. The 4 day training begins with the basics of air brake function and purpose. The training also includes the history and evolution of air brakes along with a detailed review of the various components that make up a typical freight car including single capacity and empty/load equipment functionality. Once the student understands the makeup of the brake system, the instructor will cover train brakes and terminal brake testing. Day 3 is spent covering Single Car Test procedures. Time will also be spent on a 150 car air brake rack demonstrating various brake applications and simulations. The last day of the class covers testing and training on an automated single car test device. Class dates are published at www.wabtec.com.



On-Site Training / Field Services

- **Shoe Force Technical Service**
 - Wabtec will perform shoe force testing on customer equipment
- **M-214 Barber Sideframe & Bolster Technical Service & Training**
 - Includes a detailed review of Barber maintenance specifications, AAR M-214 requirements, interchange rules, hands on inspection, and proper gauging.
- **Automated Single Car Test Device Training & Setup**



Books and Materials

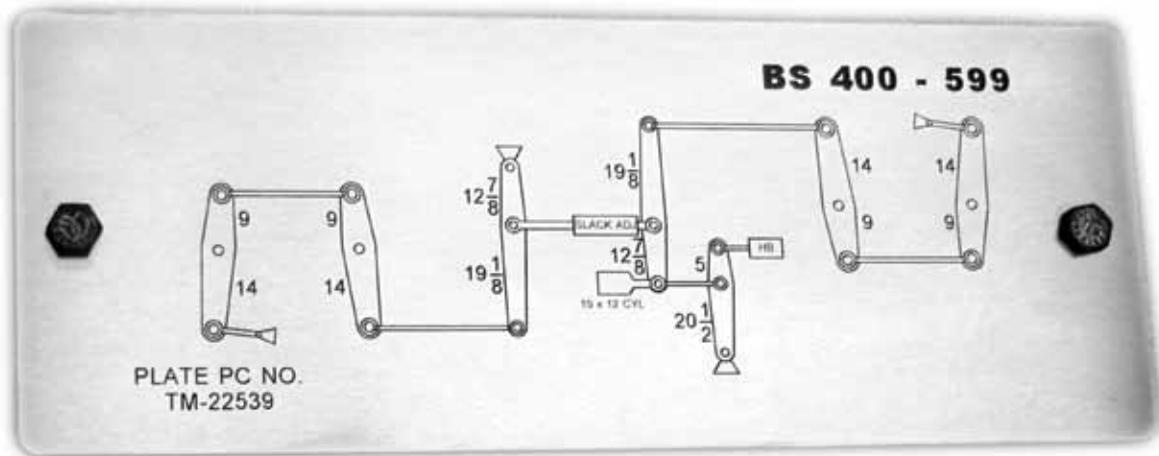
- Wabtec offers a wide variety of material geared toward educating rail personnel on the operation and maintenance of rail air brake equipment. Obtain our training catalog at www.wabtec.com

Services

Badge Plates

Business Unit: Cardwell Westinghouse

Cardwell Westinghouse now offers badge plates to new car, contract, and repair shops.



AAR S-374 Type Stainless Steel Badge Plates

Cardwell Westinghouse can laser etch customer brake rigging schematics from supplied .DXF type files into AAR S-374 type stainless steel badge plates. For a one time engineering service fee Cardwell can create .DXF files to use for printing new badge plates per customer drawing, sketch, or mark up picture of the existing plate.

Features / Benefits:

- Wabtec's laser etching machine draws the carbon in the metal plate to the surface leaving a dark brown black etched impression and does not use paint, which can wear away over time
- Ability to easily clean dirt and grit from the stainless steel plate

Services

Reconditioning Services

Business Unit: Wabtec Global Services

Wabtec's reputation for developing advanced braking equipment for freight cars is unsurpassed. No other supplier has more experience or has made more distinguished contributions in this sensitive and complex area. As a subsidiary of Wabtec, Wabtec Global Services extends this reputation to our freight equipment reconditioning and upgrade service.



- Wabtec Global Services provides a fundamentally better COT (Clean, Oil & Test) than any other company in the business through their many years of experience, specialized tools and processes
- Reconditioning services are performed at the Wabtec service locations listed below

Carson City, NV	Chicago, IL	Columbia, SC	Kansas City, MO	Strongsville, OH	Montreal, QC (CAN)	San Luis Potosi (MEX)
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FREIGHT CAR PRODUCTS							
Control Valves							
ABD, ABDW, ABDX & ABDX-L Type Portions	•	•	•	•		•	•
Upgrades - Stabilization, Leakage and Vibration Protection	•	•	•	•		•	•
DB Type Valves (DB10, DB20, DB20-L)	•	•	•	•		•	•
Pipe Brackets (AB, ABX, Single Sided & DB-30)	•	•	•	•		•	•
AB Related Equipment							
Angle Cocks, End Cocks, Dirt Collectors, Retaining Valves	•	•	•	•		•	•
Vent Valves (#8, VX, KM2)	•	•	•	•		•	•
Empty and Load Valves (P-1, S-1, SC-1U, ELX, L-1)	•	•	•	•		•	
Brake Cylinders, Piston Assemblies & AB Reservoirs	•	•	•	•		•	•
A-1 Reduction Relay Valves, B-1 Quick Service Valves	•	•	•	•		•	•
Single Car Test Devices	•	•	•	•		•	•
Automated Single Car Test Devices				•		•	
Cardwell Westinghouse / Universal							
Draft Gear Reconditioning		•					
Truck Mounted Brakes (TMX & UBX)		•					
Slack Adjusters	•	•	•			•	•
End of Car Cushioning (10KN1)				•			
Transcore							
AEI Tags & Programming	•		•	•			•
Actuators & Tread Brakes							
		•					
COBRA®							
Chock Reconditioning					•		

Cardwell Westinghouse

8400 S. Stewart Avenue
Chicago, IL 60620
Phone: 773-483-7575
Fax: 773-483-9797

Railroad Friction Products Corporation

P.O. Box 1349
Laurinburg, NC 28353
Phone: 910-844-9700
Fax: 910-844-9733

Schaefer Equipment

1590 Phoenix Road, N.E.
Warren, OH 44483-2896
Phone: 330-372-4006
Fax: 330-372-4089

Standard Car Truck

865 Busse Highway
Park Ridge, IL 60068
Phone: 847-692-6050
Fax: 847-692-6299

WABCO Freight Car Products

1001 Air Brake Avenue
Wilmerding, PA 15148
Phone: 412-825-1000
Fax: 412-825-1019

475 Seaman Street
Stoney Creek, ON L8E 2R2 Canada
Phone: 905-561-8700
Fax: 905-561-8705

Wabtec Railway Electronics

21200 Dorsey Mill Road
Germantown, MD 20876
Phone: 301-515-2000
Fax: 301-515-2100

ZefTek

865 Busse Highway
Park Ridge, IL 60068
Phone: 847- 692-6050
Fax: 847- 692-6070

Wabtec Global Services

1001 Air Brake Avenue
Wilmerding, PA 15148
Phone: 1-877-922-2627

5401 Arrowhead Dr.
Carson City, NV 89706
Phone: 775-882-0282
Fax: 775-882-4796

2610 Jean Baptiste Dechamps
Lachine, QC
Canada H8T 1C9
Phone: 514-636-3115
Fax: 514-636-8740

8400 S. Stewart Ave.
Chicago, IL 60620
Phone: 773-602-7476
Fax: 773-602-7483

EJE 126 No. 230
Zona Industrial del Potosi
San Luis Potosi, SLP
Mexico 78090
Phone: 52-444-834-4807

1222 Bluff Rd.
Columbia, SC 29201
Phone: 803-256-1612
Fax: 803-799-8402

4800 Deramus Ave.
Kansas City, MO 64120
Phone: 816-245-5450
Fax: 816-245-5460