Amsted Rail is the world’s leading manufacturer of undercarriage and end-of-car railcar components for heavy haul freight railcars and locomotives. With facilities spanning 40 locations across 10 countries and 6 continents, no one has a stronger commitment to design excellence and reliability. We also build in the technical expertise to deliver forward-looking solutions that anticipate the challenges you’ll face tomorrow.

Through our state-of-the-art manufacturing processes, Amsted Rail is redefining industry standards for innovation and technology, providing our customers worldwide with unmatched performance and reliability for the long haul.
Amsted Rail is the driving force in building the most reliable bogie assemblies in the world. Amsted Rail designs and manufactures a complete range of bogie systems to satisfy every application, thrive in every environment and meet every challenge. All backed by our century-old record for proven reliability.

Maximizing stability and longevity

Around the globe, Amsted Rail bogies consistently exceed the million-mile barrier, even in the ever-changing harsh operating climate of heavy haul freight transportation. Utilizing a patented single-piece core system, our bogies are the strongest and lightest in the industry. Their unique design helps achieve maximum stability in the toughest conditions while maximizing the longevity and wear life of our components.

EVERY ONE OF OUR BOGIE COMPONENTS IS PERFORMANCE CALIBRATED

At Amsted Rail, we provide more than parts. We deliver performance. Each precision-engineered part is calibrated to complement the other, working in sync to achieve a level of reliability and performance unique in the industry.

By setting the industry standard for even the tiniest component, you can trust Amsted Rail Motion Control® and our other bogie systems to get your precious cargo to its destination safely.
Wheels, Axles and Bearings

Griffin® Wheel division’s patented Micro Alloy® wheel sets the standard worldwide by providing greater strength at higher temperatures, resulting in fewer wheel-set removals and dramatically longer wheel life.

AxiS Axles are built in the world’s most technologically advanced axle manufacturing facility, ensuring axles are engineered to the most exacting standards.

Brenco® Bearing options provide better fuel efficiency and fewer fretting replacements with higher reliability and longer life.

PreLoad Plus® Constant Contact Side Bearings retain over 95% of new condition preload after hundreds of thousands of miles of service.

Bogie Systems:

MOTION CONTROL®

Delivering increased payloads and greater utilization

Amsted Rail’s proprietary Motion Control design is a big reason why our bogies consistently exceed the million-mile barrier, holding every corner even on the roughest track. Amsted Rail pioneered the Motion Control design back in 2003, and developed the first Motion Control system to be certified for North American Association of American Railroads Interchange Service.

To remain at the forefront, every Motion Control bogie is designed and tested with the Amsted Rail core components. This ensures product interaction, providing optimal stability across demanding operating environments while maximizing the wear life of the components.
Bolsters, Side Frames, CCSB and Bowl Liners

• Using a proprietary single piece core system, Amsted’s lightweight bolster and side frames reduce weight by up to 800 pounds per car set without sacrificing strength – greater carrying capacity per railcar!

• PreLoad Plus® Constant Contact Side Bearings (CCSB) use spring technology to retain preload for years of reliable performance with no degradation.

• Hollube® and Hollamax® Wear Prevention Products are made with advanced plastics strong enough to outlast steel and proven to reduce wear up to 88%.

• Built-in lubricity of Wear Prevention Products can save thousands of dollars in replacement costs.
• The patented elastomer pedestal pad-liner-bearing adapter design improves axle-to-rail wheelset alignment and allows controlled motion of the wheelset lowering forces in a curve.

• Adapter Plus improves curving and rolling resistance and reduces wear on the sideframe pedestal roof, thrust lug, bearing adapter crown and the bearing adapter thrust lug area.

• Increases the rail life for most curves.

• 25% longer expected wheel life.

• Longer roller bearing life than other M-976 adapters.
Suspension and Control Springs

• ASF-Keystone® spring manufacturing is differentiated by its excellent process control, which assures consistency of dimensional, metallurgical and functional properties in final products.
• State of the art manufacturing facility provides unparalleled quality and reliability.
• Our engineers have extensive experience in custom designing springs for the most demanding requirements. All ASF- Keystone spring manufacturing processes include shot peening and heat treating.
Friction Wedges

- Our highly engineered friction damping systems improve ride quality and bogie performance, providing a longer lifecycle for your railcar components.

- Friction wedges come in four configurations to fit various bogie systems:
  - Motion Control®/Super Service Ride Master®
  - Ride Control®/Super Service Ride Control®
  - Swing Motion®
  - S-2-HD/S-2-C
Key Motion Control® benefits:

- Most versatile variable damped bogie for all asset types
- Lightest bogie system and most commonly specified AAR M-976 bogie system
- Lowest life cycle maintenance costs:
  - Adapter Plus steering pad improves wheel and bearing service life
  - Longer friction wedge life
- First bogie to achieve unconditional AAR M-976 approval
- Optimal for 286,000 pound Gross Rail Load/32.5 tonne Axle Load

BOGIE SYSTEMS:
Today, Amsted Rail is moving the heavy haul rail industry forward with a full array of advanced bogie systems including Motion Control, Swing Motion, Super Service Ride Control and Amsted Rail HD Split Wedge. Amsted Rail also has the capability to build custom bogie assemblies. Our team of engineers will work with you to customize a bogie assembly specifically suited to your needs.

**SWING MOTION®**

**Stability at higher speeds**

Swing Motion was developed over 40 years ago to provide railways with safe high-speed capability and improved ride quality for reduced lading damage. This advanced bogie system provides maximum performance benefits with evolutionary enhancements only ASF-Keystone® can deliver.

**SUPER SERVICE RIDE CONTROL®**

**Reduced wear, longer life**

Designed for high utilization assets like coal cars, Super Service Ride Control is a real workhorse. It combines proven wheel wear improvements and exceptional life cycle costs. First introduced back in the 1990’s, it continues today to be one of our most widely popular design options.

**AMSTEMD RAIL HD SPLIT WEDGE**

**Economical choice for mid to low utilized assets**

Introduced nearly 40 years ago, the HD Split Wedge is a variable damped bogie that is an ideal choice for medium-mileage, heavy axle load applications. The HD Split Wedge bogie is available as a standard variable damped, 3-piece truck design, or in a 125-ton configuration.
Comprehensive solutions to cushion the blow
From the market’s toughest integral cast draft sills and draft gear, to a complete line of AAR-approved cushioning units, drawbars and couplers, Amsted Rail can deliver whatever end-of-car solution you need to protect your investment.

**Integral Cast Draft Sills**
Engineered to be lighter, stronger and last longer, they reduce empty car weight by nearly 300 pounds and lower impact stresses in the railcar structure. Ideal for protecting heavily used assets such as coal hoppers. AAR and MSCSM approved.

**Twin Pack® Draft Gear**
Designed to reduce car damage due to impacts by as much as 65%, the revolutionary elastometric Twin Pack is AAR-approved and available for all coupler types. The lightest, most durable draft gear anywhere – and we offer the broadest range of options.

**Couplers**
Amsted Rail is the premier manufacturer of fatigue-resistant couplers built to AAR standards. We also provide yokes, knuckles and articulated connectors to meet any application.

**Cushioning Units**
ASF-Keystone Cushioning Units have been providing energy management connections between couplers for decades. Designed with both yard impacts and train force reduction in mind, they achieve unmatched performance cushioning protection for both car and cargo.

**Stress tests strengthen performance**
We precisely measure the impact energy of in-train forces to ensure our solutions will stand up to the most extreme operating conditions. Then, for extra assurance, we demonstrate the viability of every energy management system on our impact test track with the most demanding railcars in service. By engineering end-of-car systems to effectively reduce impact stress, we can lower maintenance costs, reduce downtime and extend service life.

DURABLE PROTECTION CAN TAKE ALL THE HITS
Day in, day out, the ends of your heavy haul railcars are getting banged around from high-impacts. To survive all the hard knocks – from railcar coupling to push and pull on the go – you need a level of protection only Amsted Rail can provide. Our innovative energy management systems have set the standard worldwide for performance and reliability.

End-of-Car Systems:

- **Integral Cast Draft Sills**
- **Twin Pack® Draft Gear**
- **Couplers**
- **Cushioning Units**

Amsted Rail can deliver whatever end-of-car solution you need to protect your investment.
IONX® ASSET MONITORING SYSTEMS:

IONX® asset monitoring systems enable you to better manage your fleet, providing data that can help you improve shipment safety, security, turn cycles and total fleet optimization. IONX delivers location and condition status reports in near real time – regardless of your asset’s location – and complies with all TSA reporting requirements. Insights gained from IONX analysis are helping shippers and owners around the world reduce costs and meet productivity goals.

FLEET MANAGEMENT MADE SIMPLE

- **Tank Temperature Sensor**: Accurately measures changes in commodity temperature
- **Handbrake Sensor**: Verifies proper application of the individual handbrake and provides near real-time reports for securement of unattended trains
- **Impact Detection**: Provides the ability to correlate struck coupler force to accelerations and includes historical data log for refined analysis of your asset's operating environment
- **Open/Closed Hatch Sensor**: Detects any sudden changes in hatch condition by constantly monitoring the hatch status
- **On-board Weighing System**: Provides precise measurement of the car’s payload and improves loading and unloading accuracy to maximize logistics and revenue opportunities
- **Bearing Temperature Sensor**: Continuously monitors roller bearing temperature to minimize false setouts and automatically sends an alert when there is a risk of potential damage due to overheating
- **GPS combined with IONXLive**:
  - Highly accurate GPS identifies location, time, speed, distance traveled, nearest city and nearest railroad.
  - IONXLive software consolidates and processes all of your various data resources to simplify fleet statistics.
  - IONXLive software assists fleet managers with financial reporting associated with the expenses, allocation of expenses and trending of life cycle costs, and audits repair expenses to save you time and money.

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BRAKE SYSTEMS:

Innovators in truck mounted brake systems
Amsted Rail pioneered advanced Truck Mounted Brake (TMB) Systems for heavy haul applications. As the first manufacturer to integrate the brake cylinder into a truck/bogie system, we lead the way in designing systems engineered for greater safety, efficiency and seamless performance. Already deployed in thousands of railcars worldwide, the AAR-approved Amsted Rail TMB System is a proven high mileage, low maintenance system that can help lower the total cost of railcar ownership.

Single-source reliability
From AAR-approved handbrakes, empty load sensors, brake cylinders and more, Amsted Rail is the one place to stop to keep your railcars under control. Whatever braking system you choose – conventional body mounted or truck mounted – Amsted Rail will develop an integrated solution that can enhance railcar performance and increase the life cycle savings of your railcar.

Amsted Rail is a world leader in manufacturing brake systems for the heavy haul market. We offer the broadest array of advanced braking equipment, with each component designed to meet the exacting tolerances demanded by the rigors of heavy hauling. They’re built to go long distances with low maintenance and never compromise an inch on stopping distance. No wonder Amsted Rail braking systems and components set the standard worldwide for innovation, reliability and performance.

MORE STOPPING POWER IN BRAKE SYSTEM SOLUTIONS

Amsted Rail is a world leader in manufacturing brake systems for the heavy haul market. We offer the broadest array of advanced braking equipment, with each component designed to meet the exacting tolerances demanded by the rigors of heavy hauling. They’re built to go long distances with low maintenance and never compromise an inch on stopping distance. No wonder Amsted Rail braking systems and components set the standard worldwide for innovation, reliability and performance.
Freight rail traffic is increasing, locomotives are aging and environmental compliance regulations are tightening. Those factors are combining to make demand for new locomotives and locomotive parts stronger than ever.

Amsted Rail is ready. We’re rolling out the industry’s most rugged locomotive components, all designed to take on the heaviest loads under the most extreme conditions. From wheels and axles to bearings, coils and gears, Amsted Rail manufactures to the tightest tolerances, ensuring performance that’s out in front starting right at the front of the train.

No matter where in the heavy haul rail world you are, Amsted Rail is ready to respond 24/7. Across six continents, in every significant railroad market, our support team will hit the ground running to get you the parts, systems and solutions you need fast.

It’s all part of our mission to be more than a manufacturer and supplier but a solutions-provider for our heavy haul rail clients. By listening to your needs, by having boots on the ground where you live, we can work together to solve the challenges you’ll face tomorrow.

Moving the industry forward into an exciting new future. That’s the promise of Amsted Rail.