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HENDRICKSON The World Ride: On Use

Hendrickson is a leading global manufacturer and supplier of mediumand heavy-duty mechanical, elastomeric and air suspensions; integrated and non-integrated axle and brake systems; tire pressure control systems; auxiliary lift axle systems; parabolic and multi-leaf springs; stabilizers; bumpers; and components to the global commercial transportation industry. Every day around the world, millions of Hendrickson suspensions carry countless loads of freight and raw materials both on- and off-highway. We supply durable, lightweight, high-performing suspension systems and components to the major North and South American, European, Asian and Australian medium- and heavy-duty truck and trailer OEMs, fleets and dealers. Hendrickson's growing global position in the commercial transportation industry and its ongoing drive to provide products and services benefit truck and trailer manufacturers, fleets and owner-operators. Our tagline, The World Rides On Us®, reflects not only the spirit of the brand but also Hendrickson's 100-plus years of being driven by quality.

ON-HIGHWAY SUSPENSION SYSTEMS

STEERTEK™ NXT

Fabricated front steer-axle for on-highway applications

- Fabricated axle assembly for lightweight design
- Box-shaped cross-section is more rigid than traditional I-beam axles
- Two-piece knuckle helps reduce maintenance and downtime
- Premium kingpin bushing and seals extend scheduled service intervals up to 100,000 miles*
- Standard 10-year limited warranty**

• Compatible with drum and disc brakes

 Also available with integrated air disc brake knuckle for additional weight savings (12,000 to 13,200 lb. capacity)

Capacity up to 14,600 lbs.



SOFTEK® NXT

Integrated front monoleaf suspension and steer axle system

- Combines STEERTEK™ NXT axle and monoleaf technology with an advanced integrated clamp group design
- Saves up to 84 lbs. vs. traditional two-leaf spring and I-beam axle systems

 Premium kingpin bushing and seals extend scheduled service intervals up to 100,000 miles*

 Also available with integrated air disc brake knuckle for additional weight savings

 Highly engineered for optimized ride with enhanced stability

 Capacities of 12,500 to 13,200 lbs.



AIRTEK®

Integrated front air suspension and fabricated steer axle system

- Combines STEERTEK™ NXT axle and air spring technology with an advanced integrated clamp group design
- Integrated design provides superb ride, driver comfort and roll stability compared to traditional two-leaf spring suspension
- Up to 79 lbs. weight savings
- Premium kingpin bushing and seals extend scheduled service intervals up to 100,000 miles*
- Integrated axle seat to improve ground clearance and reduce part complexity
- Compatible with drum and disc brakes
- Capacities of 12,000 to 14,600 lbs.



AIRTEK® NXT

Integrated front air suspension and fabricated steer-axle system

- Combines STEERTEK™ NXT axle and air suspension technology with an advanced integrated clamp group design
- Premium kingpin bushing and seals extend scheduled service intervals up to 100,000 miles*
- Provides superb ride, driver comfort and roll stability
- Up to 155 lbs. weight savings
- Compatible with drum and disc brakes
- Capacities of 12,500 to 13,300 lbs.





HAS™

Rear air suspension designed for comfort and handling

- Suitable for on-highway applications that require up to 25 percent off-highway travel
- Large volume air springs deliver excellent ride quality and cargo protection
- Compatible with drum and disc brakes
- Capacities ranging from 21,000 lbs. to 23,000 lbs. (single axle) 40,000 lbs. to 46,000 lbs. (tandem axle)

HTB® LT

Lightweight, non-torque reactive, on-highway, rear air suspension

- Weight savings of up to 135 lbs. compared to other 40,000 lb. capacity suspensions
- Non-torque reactive suspension maintains driveline pinion angles and significantly controls frame rise
- Large-volume air springs support the entire load to create a superior ride experience
- Unique, low-maintenance torque box system improves multi-axial stability and control
- Capacity of 40,000 lbs.

COMFORT AIR®

Rear air suspension designed for passenger and driver comfort in various on-highway applications

- Main support member designed for optimized roll stiffness and handling
- Air springs adjust to changing road conditions to deliver superior ride quality
- Compatible with drum and disc brakes
- Capacities ranging from 15,000 to 23,000 lbs. (single axle), 40,000 to 46,000 lbs. (tandem axle)



6×2 liftable forward tandem axle and suspension system

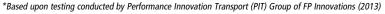
- Saves up to 400 lbs. vs. traditional 6 x 4 suspension systems
- 6 x 2 systems can provide up to 3.5 percent decrease in fuel consumption vs. 6 x 4 systems on similar tractors*
- Up to 2 percent additional fuel consumption improvement through lifting the non-driven axle**
- Lifted axle can also provide potential toll and maintenance savings
- Designed for diminishing load carriers such as bulk haulers, grocery, livestock, beverage or applications experiencing empty backhauls
- Fully automated controls eliminate driver intervention and training
- Compatible with drum and disc brakes
- Capacity of 20,000 lbs.



6×2 liftable forward tandem axle and rear suspension system

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- Compatible with drum and disc brakes
- Capacity of 20,000 lbs.





VOCATIONAL / HEAVY-HAUL SUSPENSION SYSTEMS

HAULMAAX® EX

Heavy-duty rear rubber suspension system

- Hundreds of pounds lighter than competitive suspension systems
- Increased job site rating for expanded applications
- Superior combination of empty ride and loaded stability
- Improved durability through advanced elastomer technology
- Reduced maintenance due to optimized geometry and lubrication-free components
- Up to 17 in. of diagonal articulation for greater mobility
- Increased clearance for wide-based tires
- Approved applications include: dump, refuse, mixer, logging, crane / boom and defense
- Capacities of 40,000, 46,000 and 52,000 lbs.

PRIMAAX® EX

Severe-duty vocational rear air suspension system

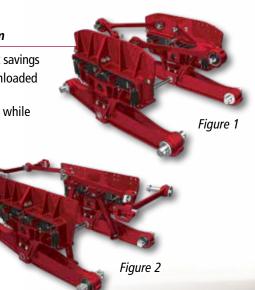
- Engineered specifically for severe-duty operations for up to 100 percent off-highway use
- Axle connection and torque rods help reduce torsional axle stress and driveline vibration
- Large-volume, low-frequency air springs provide a smooth ride for on- and off-highway use
- Up to 12.5 in. of diagonal wheel articulation for superior mobility
- Recommended applications: oil field, heavy haul, logging, defense, mixer, crane mounted, dump, refuse and tractor

Capacities of 23,000 and 26,000 lbs. (single axle), 46,000 and 52,000 lbs. (tandem axle) and 69,000 and 78,000 lbs. (tridem axle)



Advanced severe-duty rear rubber suspension system

- Optimized design to balance robust durability and weight savings
- Progressive load springs provide a unique balance of unloaded ride quality and loaded stability
- Fabricated walking beam design equalizes axle loading while providing optimal clearance, axle travel and weight
- Approved applications: dump, logging, mixer, refuse, crane / boom, platform, oil field and mining
- Up to 17.5 in. of diagonal articulation
- Capacities of 60,000 and 70,000 lbs. utilize torque rods or V-rods See Figure 1
- Capacities up to 52,000 lbs. utilize torque rods See Figure 2







HAS™ (402,460)

Heavy-duty, lightweight rear air suspension system

- Suited for both on- and off-highway applications
- Large-volume air springs deliver excellent ride quality and cargo protection
- Approved for up to 25 percent off-highway use
- Approved for use with lift axles
- Optional inboard shocks available
- Capacities of 40,000 and 46,000 lbs.

RTM/ RSTM

Solid mount rear suspension systems

- R solid mount is an extra heavy-duty suspension where maximum roll stability is essential
- RS rubber load cushions absorb shock and provide high stability for severe-service applications
- Exceptional performance in mining, oil field, mixer, refuse, logging and other specialty applications





AIRTEK® NXT

Integrated front air suspension and twin steer-axle system for truck crane applications

- Single or twin front steer featuring STEERTEK[™] NXT axle
- Trailing or leading arm configuration
- Continuous beam architecture minimizes stress points for added durability

• Premium kingpin bushings and seals provide enhanced protection from the elements to improve bushing life

• Up to 52 in. axle spacing

 Capacities up to 26,000 lbs. (single axle) and 52,000 lbs. (tandem axle)

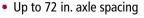


ROADMAAX®

High-capacity fabricated rear air suspension system for truck crane applications

- Reduced road shock and vibration to vehicle helps extend service life of cab, chassis and body equipment
- Wide stance air springs provide increased roll stability and predictable handling
- Eliminates torque rods for lower maintenance







VOCATIONAL / HEAVY-HAUL

SUSPENSION SYSTEMS (Continued)



RT™

Steel leaf spring rear suspension system

- Equalizing beam distributes load equally between both axles for improved traction
- Consistent spring rate for longer spring life
- Well suited for dump, refuse, mixer, mining and military applications
- Capacities up to 40,000 and 46,000 lbs.



COMFORT AIR®

Vocational rear air suspension system

- Main support member designed for optimized roll stiffness and handling
- Air springs adjust to changing road conditions to deliver superior ride quality
- Featuring TRAAX ROD® torque rods for exceptional performance life
- Capacities of 40,000 and 46,000 lbs.



PARASTEER™ HD

Vocational front air suspension system

- Designed for single-, twin-, or tri-steer applications
- No fixed steer-axle spacing constraints, providing excellent axle spacing flexibility
- Approved for up to 100% off-highway
- System weight remains constant as steer axle spacing increases
- Heavy-duty rubber bushings require no **lubrication**
- Applications include crane, concrete, oil field and specialty
- Capacities of 14,600 20,000 lbs. per axle

AR2™

Air over walking beam suspension system

- Converts most RT[™]/ RTE[™] steel spring suspensions to an air suspension
- Better ride, longer component life, reduced weight and improved durability
- High articulation capabilities for on- and off-highway applications
- Applications include dump, crane / boom and platform
- Capacities of 40,000 and 46,000 lbs.



STEERTEK™ NXT

High-capacity front steer-axle system

- Full system designed for optimal control under heavy braking, providing increased wheel travel and lower spring rate, improving ride quality
- Compatible with drum and disc brakes
- Provides weight savings vs. traditional forged I-Beam axles with multi-leaf spring packs
- Proprietary threaded pin bushings increase roll stiffness







FIRE / RESCUE SUSPENSION SYSTEMS



FIREMAAX® EX

Heavy-duty rear air suspension for fire and rescue applications

- Improved ride for equipment, vehicle, and passenger protection
- Exceptional handling for greater control during road maneuvers
- Delivers up to twice the roll stiffness compared to other suspensions
- · Premium, heavy-duty rubber bushings require no lubrication
- Air springs and shock absorbers designed to package within tire envelope for protection from external damage
- Available in single-axle configurations up to 31,000 lbs. and tandem configurations up to 62,000 lbs.

STEERTEK™ NXT

High-capacity front steer axle and suspension system for fire and rescue applications

- Full system designed for optimal control under heavy braking, providing increased wheel travel and lower spring rate to improve ride quality
- Compatible with drum and disc brakes
- Provides weight savings vs. traditional forged I-Beam axles with multi-leaf spring packs
- Proprietary threaded pin bushings increase roll stiffness
- Capacity up to 24,000 lbs.

ULTIMAAX®

Advanced severe-duty rear rubber suspension for fire and rescue applications

- Fabricated walking-beam design equalizes axle loading while providing optimal clearance, axle travel and weight
- Superior ride for reduced road shock and vibration to the vehicle, which contributes to longer service life of the cab, chassis and body equipment
- Progressive load springs and bar pin end bushings help extend service life and reduce replacement time
- Capacity up to 65,000 lbs.

HAULMAAX® EX

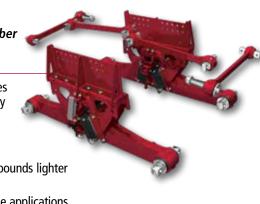
Heavy-duty, lightweight rear rubber suspension for fire and rescue applications

- Unique spring design that balances ride quality and apparatus stability
- Equalizing beams distribute load equally between both axles for improved traction
- Lightweight design is hundreds of pounds lighter than competitive suspensions
- Ratings approved for fire and rescue applications
- Capacity up to 54,000 lbs.

ROADMAAX®

Heavy-duty rear air suspension for fire and rescue applications

- Provides consistent ride quality with varying vehicle loads
- Optimized configuration provides improved driver feel for increased handling and confidence when performing maneuvers
- Inboard or outboard shock options available
- Featuring TRAAX ROD® torque rods for exceptional performance life
- Single axle capacities up to 35,000 lbs. (single axle) and 70,000 lbs. (tandem axle)







TRUCK / BUS / MOTORHOME SUSPENSION SYSTEMS

AIRTEK®

Integrated front air suspension and steer-axle system designed for comfort and improved performance

- Combines STEERTEK™ NXT axle and air suspension technology with an advanced integrated clamp group design
- High-volume air springs provide superb ride and driver comfort
- Low-maintenance design helps trucks, buses and motorhomes avoid downtime on the road
- Up to 55 degrees of wheel cut greatly improves maneuverability
- Capacities ranging from 12,000 to 14,600 lbs.

HTS™

Single drive-axle, rear mechanical spring suspension system

- Frame hangers are lightweight and designed for maximum durability
- Longitudinal torque rods absorb braking and acceleration forces
- Wide axle seats with heavy-duty U-bolts for secure connection
- Shock absorbers provide additional driver comfort
- Capacities up to 31,000 lbs.

LUXAIR®

Premium lightweight drive-axle air suspension for transit and coach bus applications

- Robust fabricated construction for exceptional reliability in various road conditions
- Tunable rate, frequency and roll stiffness through multiple shock and air spring combinations
- Non-reactive to brake and drive torque
- High-volume air springs provide outstanding level of passenger comfort
- Capacities up to 29,000 lbs.

STEERTEK™ NXT

Fabricated front steer-axle for medium-duty, bus and motorhome

- Fabricated axle assembly for lightweight design
- · Box-shaped cross-section is more rigid than traditional I-beam axles
- Two-piece knuckle helps reduce maintenance and downtime
- Designed as a platform for OEM proprietary and next-generation front axle / suspension systems
- Premium kingpin bushing and seals extend scheduled service intervals up to 40,000 miles for truck / bus / motorhome applications*
- Compatible with drum and disc brakes
- Also available with integrated air disc brake knuckle for additional weight savings (10,000 to 13,200 lb. capacity)
- Capacities ranging from 5,500 to 14,600 lbs.
 - * Contact Hendrickson for full-service interval details and limitations.

PARASTEER™

Front axle air suspension system designed specifically for bus and motorhome applications

- Four-bar linkage design promotes outstanding steering and handling qualities
- High-volume air springs help to protect the vehicle and provide premium passenger and driver comfort
- Rubber bushings require no lubrication
- Transverse leaf assists in providing excellent lateral stability and roll stiffness
- Capacity up to 14,600 lbs.

SNAKE SPRING

Innovative lightweight spring technology

- 20 percent weight reduction compared to a traditional multi-leaf package
- Fewer, lighter parts provide the same characteristics as traditional multi-leaf springs
- Progressive spring rate customized to the application
- A single-leaf design provides improved comfort at a reduced load without compromising stability when loaded
- Snake spring technology and the progressive spring rate that is associated with this design may allow for a smaller stabilizer or, in some cases, may eliminate the stabilizer









PRIMAAX®

SOFTEK®

Integrated front mechanical suspension and steer-axle system designed for passenger and driver comfort

- Combines STEERTEK™ NXT axle and monoleaf technology with an advanced integrated clamp group design
- Highly engineered for optimized ride and performance
- Robust design for high durability and low-maintenance
- Advanced design helps deliver enhanced stability while reducing weight
- Up to 55 degrees of wheel-cut greatly improves maneuverability
- Capacities ranging from 5,500 to 14,600 lbs.

PRIMAAX® EX

Single drive-axle, heavy-duty rear air suspension system

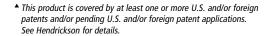
- Low reactivity to brake and acceleration torque
- Roll-resistant design helps improve handling while providing protection to the vehicle
- Optimized design supports comfort through superior ride and handling

 PRIMAAX® EX
- Suitable for heavy-duty bus, RV and medium-duty applications
- Single-axle capacities up to 23,500 lbs.

HTB®

Single drive-axle, rear air suspension designed for stability and ride comfort

- Patented torque box system^{*} provides roll stability and lateral / longitudinal control
- Flexible design balances roll stiffness and articulation without compromising ride performance
- Non-reactive to brake and acceleration torque
- High-volume air spring aid in protecting the vehicle and provide premium passenger and driver comfort
- Capacities up to 21,000 lbs.





Single drive-axle, rear air suspension

- Range of models for medium-duty tractors, pick-up / delivery, beverage, bus and motorhome applications
- Suspension geometry helps optimize ride and handling
- Low ride heights available
- Compatible with drum and disc brakes
- Capacities ranging from 12,000 to 23,000 lbs.

AIRTEK®

Integrated front air suspension and steer-axle system designed for comfort and improved performance

- High-volume air springs provide superb ride along with passenger and driver comfort
- Unique integrated system design achieves lower ride heights to ease passenger entry and exit
- Fabricated torque box helps provide roll stability and lateral / longitudinal control
- Capacities ranging from 14,600 to 20,000 lbs.

COMFORT AIR®

Single drive-axle, rear air suspension system designed for passenger and driver comfort

- Suspension geometry helps optimize ride and handling
- Wide footprint of frame hanger reduces stress on the frame
- Low-maintenance design with durable bushings helps extend service life
- Capacities ranging from 15,000 to 23,000 lbs.

COMFORT AIR®

Single drive-axle, rear air suspension system designed specifically for cut-away and specialty vehicles

- Optimized configuration provides improved driver feel for increased handling and confidence during operation
- Designed to achieve 3.5 in. of kneel
- Designed to reduce roll forward during kneeling operation
- Capacity up to 10,000 lbs.







DEFENSESUSPENSION SYSTEMS

For over a century, Hendrickson's products have carried countless loads of freight and raw materials both on- and off-highway. Our expertise as a global manufacturer and supplier of heavy-duty suspensions don't stop there – based on our commercial vehicle suspension technology, we also supply products for robust defense vehicles that support and protect armed forces around the world.

Hendrickson has supported defense applications for over 85 years through various programs, including the M915 and M916 tractors and the HEMTT, HET, PLS, MVT, MTVR, LVSR, MRAP, HMMWV, Army Heavy Dump Truck and M870A2-S MHET trailers.

Through our experience and strengths in design and development, we understand that each defense application is demanding, and thus, requires proven technology. Our involvement early in the process enables Hendrickson to deliver reliable, durable and innovative suspension systems to help support and protect those who protect us.

PRIMAAX® EX

Severe-duty vocational rear air suspension

- Optimized geometry contributes to high roll stiffness characteristics
- Axle connection and torque rods help reduce torsional axle stress and driveline vibration
- Large-volume, low-frequency air springs help smooth the ride in rugged conditions
- Up to 12.5 in. of diagonal wheel articulation for superior mobility
- Compatible with HPAS[™] suspension for active ride height control and load leveling
- Capacities of 23,000 and 26,000 lbs. (single axle), 46,000 and 52,000 lbs. (tandem axle) and 69,000 and 78,000 lbs. (tridem axle)



STEERTEK™ NXT

High-capacity front steer-axle and suspension system

- Full system designed for optimal control under heavy braking, providing increased wheel travel and lower spring rate to improve ride quality
- Compatible with drum and disc brakes
- Provides weight savings vs. traditional forged I-Beam axles with multi-leaf spring packs
- Proprietary threaded pin bushings increase roll stiffness
- Capacity up to 20,000 lbs.

HAULMAAX® EX / ULTIMAAX®

Heavy-duty and severe-duty rear rubber suspensions

- Load springs offer tremendous roll stability for vehicles traveling in harsh environments and are adjustable to help improve ride quality for different body and equipment configurations
- Up to 17.5 in. of diagonal articulation helps keep the axle in traction for greater off-highway mobility
- Reduced maintenance with fewer bushings and no lubrication requirements
- Systems can be tailored to meet the specific requirements for frame width, ride height and axle spacing for unique vehicle applications
- HAULMAAX® EX heavy-duty suspension is available in tandem capacities up to 52,000 lbs. — ULTIMAAX® severe-duty suspension is available in capacities up to 70,000 lbs.

HPAS™

High-performance air suspension system

- Complete ride height with spring damper control system, improves vehicle handling and increases roll stability
- Reduced packaging size and easy vehicle retrofit packages
- Debris and environmental resistance
- Provides raising and lowering capability
- Multiple ride height capability
- Adaptable to multiple load range requirements, increasing payload capability while maintaining ride quality at all load ranges and multiple axle combinations









Long Travel Trailing Arm Air Suspension

Severe-duty rear air suspension

- Fully customizable design allows for a variety of packaging, ride heights, ride tuning and stability requirements
- Large-volume, low-frequency air springs or optional heavy-duty coil springs help smooth the ride in rugged conditions
- Over 12 in. of wheel travel for superior mobility
- Compatible with HPAS[™] suspension for active ride height control and load leveling
- Capacities up to 27,000 lbs. (single axle), 54,000 lbs. (tandem axle), 81,000 lbs. (tridem axle)

Leaf Spring Capabilities

Parabolic, multi-leaf and composite springs

• Parabolic Taper-leaf

Custom-designed for a variety of on- and off-highway applications

Monoleaf

Innovative spring designed to optimize steering kinematics and significantly save weight

• Off-Highway Bogie

Rear heavy-section parabolic springs designed and produced for a variety of off-highway applications

Multi-Leaf

Rugged yet efficient design to suit a variety of demanding applications

• LITEFLEX® Composite Springs

Improved ride, reduced weight, lower maintenance, and enhanced vibration and harshness feedback



RT™

Steel leaf spring rear suspension system

- Genuine Hendrickson springs are made from high-strength steel and are heat-treated and shot-peened for exceptional fatigue life
- Equalizing beams utilize a central pivot point to help maintain tire contact with the ground for improved traction
- Suspension design provides a low center of gravity for increased stability
- Up to 15 in. of diagonal articulation for outstanding traction and mobility
- Rugged beam-to-axle connection extends bushing life and allows easy axle alignment
- · Optional shock kit available for improved ride
- Tandem capacities up to 65,000 lbs.

HT™

Reliable, affordable and flexible trailer air suspensions

- Designed for use with multiple brake sizes, including 12.25 in.
- Multiple brake chamber orientations available
- TRI-FUNCTIONAL® Bushing with up to a 5-year limited warranty*
- QUIK-ALIGN® axle alignment system standard on most models
- 5-year / 500,000-mile structural warranty*
- · Off-the-shelf replacement parts

* Contact your local Hendrickson representative for complete warranty terms, conditions and limitations.





STEEL SPRINGS / COMPOSITE SPRINGS



Committed to Advancing Global Spring Technology

As a leader in the global transportation industry, we are committed to advancing global spring technology. In state-of-the-art research and design centers, our engineers develop products for today and ride solutions for future generations. Advanced Hendrickson proprietary processing allows us to achieve maximum hardness in springs for extended fatigue life and higher strength to withstand demanding braking requirements. We have reduced the number of leaves required for many of our spring products, leading to lower cost and weight, benefits that customers come to expect.

At Hendrickson, we continue vertical integration by manufacturing many of our spring bushings, giving us better quality control of the entire spring assembly and ensuring overall performance. Hendrickson engineers work with vehicle manufacturers to design and model innovative prototypes and conduct rigorous testing in the lab and in realworld conditions, providing you with smart, efficient and cost-effective solutions.

A Leaf Spring for Every Need

Hendrickson offers a wide range of customized solutions, from monoleaf to multi-leaf springs. We design and manufacture springs for light- through heavy-duty commercial vehicles, with spring thicknesses ranging up to 2.5 in. and a maximum length of 8 ft. weighing 15 to 575 lbs. Our weight-saving solutions can save over 200 lbs. per truckload, as we understand that every pound counts in the transportation industry.

For demanding application requirements, reliability, durability, weight reduction and innovative designs – Hendrickson is the world's spring provider for all your transportation needs.

LITEFLEX® Composite Spring Technology

Hendrickson Automotive, Medium-Duty, Truck and Trailer springs are corrosion and sag-resistant, maintain ride height and provide improved ride quality due to improved response time. Our LITEFLEX composite springs are a proven option for the passenger and light truck segments, OEMs, fleets and owner / operators looking to improve ride & comfort, lighten their load, reduce maintenance and total cost of ownership.

8t Monoleaf



Heavy-Duty Parabolic Leaf Spring



Monoleaf Spring Links



Multi-Kicked Monoleaf Spring Link



3D Spring Link





Heavy-Duty Multileaf



Bogie Parabolic Spring



V-Shaped Bogie Parabolic







LITEFLEX Medium-Duty Spring



LITEFLEX Trailer Spring



LITEFLEX Heavy-Duty -Class 8 Spring



STABILIZERS / U-BOLTS



Refining Vehicle Stability, Handling and Comfort

More than 30 years of expertise in stabilizer design allows Hendrickson to further enhance commercial vehicle stability, handling and comfort. Stabilizers play a key role in many truck and bus suspension designs and are becoming increasingly important in weight-critical applications for the next generation of trucks.

Stabilizer Design and Testing

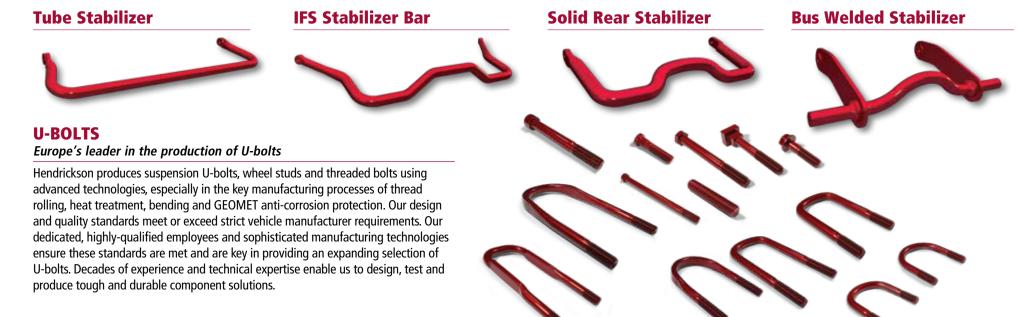
Our engineers designed, prototyped and tested each customized component to meet vehicle manufacturer requirements and Hendrickson's stringent criteria. Each stabilizer design is tested in our lab and in real-world conditions to provide the end user with innovative and cost-effective solutions. These proprietary competencies enable us to continuously improve our manufacturing quality and production processes for all our components and suspension systems.

Lighter and Value Added

Hendrickson tube stabilizers are up to 45 percent lighter than solid stabilizers and enable significant reduction in both unsprung and total weight savings. Our stabilizers help the end user meet today's fuel consumption challenge and the expectations of higher payloads.

Our expertise lies in medium to large diameter stabilizers. Hendrickson delivers state-of-the-art tube stabilizers with diameters up to 2.6 in. and wall thickness of .39 in. In addition, our advanced two-stage coating line ensures anti-corrosion surface protection, resulting in superior durability and added value for the end users.

Whatever your spring or stabilizer requirements are, Hendrickson holds the solution for your transportation needs. Hendrickson has over 100 years of experience in the global heavy-duty commercial vehicle industry, that's why ... The World Rides On Us[®].



TORQUE RODS / TORQUE ROD BUSHINGS



Through the unrelenting pursuit of innovation and quality for over 100 years, Hendrickson remains a pioneer in the commercial vehicle industry. We are a leader in the advancement of suspension and component technology as a result of more than sixty years of development and over twenty years of elastomer manufacturing experience. These accomplishments allow us to fully integrate systems, modules and components that meet commercial vehicle demands for durability, weight savings and low life cycle costs.

TRAAX ROD® – Family of Torque Rods

Extended Life

Advanced bushings that are fully encapsulated work together to provide enhanced performance life over competitive torque rods with conventional double-shot bushing assemblies.*

Flexibility

Available with straddle or taper pin bushing design.

Broad Application

Bushing and rod bodies specifically designed for a wide range of capacity and application criteria.

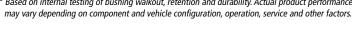
* Based on internal testing of bushing walkout, retention and durability. Actual product performance

Packaging

Available in a variety of lengths and hub sizes. Easily replaces and upgrades standard torque rods in the market.

Durability

Rod body and bushing designs meet rigorous testing parameters required for all Hendrickson products.



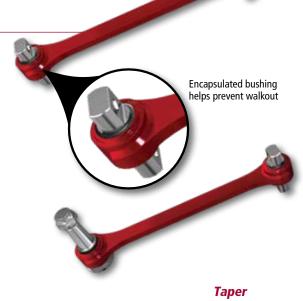
TRAAX ROD® Torque Rod Bushings

Offering a wide variety of bushing designs to meet global application or attachment requirements. From light-duty on-highway to demanding vocational applications, our designs are tailored solutions to deliver extended performance and restrict walkout. We are pushing the boundaries of torque rod performance for demanding application requirements – reliability, outstanding durability, articulation, and innovative designs – for your vehicle needs.

ULTRA ROD® and ULTRA ROD® PLUS Torque Rods

ULTRA RODs have forged or cast rod body construction with unique bonded bushings. Both forged and cast rod bodies provide structural integrity, while the unique bonded bushings reduce the friction and heat that can damage ordinary bushings – providing longer life and greater payload.







ELASTOMERS AND BUSHINGS



Hendrickson's unique elastomer and bushing designs are higher-performing, more durable and provide low-maintenance operation

Why use rubber in heavy truck suspensions?

- Reduce overall suspension weight
- Lower component costs
- Increase durability in harsh operating environments
- Ease of service and replacement

- Reduce maintenance requires no lubrication
- Provides isolation and damping through energy absorption
- Add system compliance for greater articulation and mobility

Spring Eye Bushings

Spring eye bushings are designed as integral components of the spring system, providing enhanced performance in the areas of roll stability, ride and durability.





Thru Bolt Rate Ring Cartridge

Bar Pin

Rubber Springs

Our advanced components have redefined the way rubber spring suspensions perform. The innovative, high-grade rubber designs withstand heavy loads in rugged applications.



Shear Spring (ULTIMAAX®)



Progressive Spring (ULTIMAAX® 48T)



Progressive Spring (ULTIMAAX® 37T)



Progressive Spring (ULTIMAAX® 46/52/60K)



Progressive Spring (HUV™)



Bolster Spring (HAULMAAX® EX)



Progressive Spring (HAULMAAX® EX)

Beam Bushings

Premium rubber beam end bushings provide enhanced flexibility between the beam and the axle to absorb braking and accelerating forces and provide designed articulation / compliance to help ensure high-mobility demands. Equalizing beam center bushings are designed for specific types of Hendrickson walking beam suspension capacities and configurations to maximize system performance.



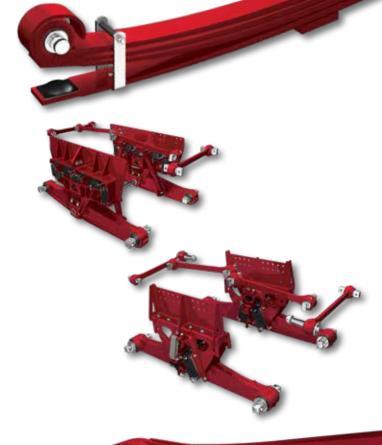
Rate Ring End Bushing



Spherical End Bushing



Voided Center Bushing



OUR COMMITMENT

Our dedication to quality is embedded in the essence of DRIVEN BY QUALITY™. We leverage our expertise as manufacturers of suspension systems and components for the global medium- and heavy-duty commercial vehicle industry.

Serve the transportation industry with high-quality products designed to enhance productivity, profitability, and overall value. Supply the worldwide commercial vehicle sector with robust and cost-effective advanced ride solution technologies. Foster a culture of dedicated leadership and employees who honor our proud heritage through creativity, integrity, and service.

Develop superior, distinctive products that support cutting-edge manufacturing and distribution processes. Cultivate strategic relationships to engineer and manufacture systems, modules and components meeting commercial vehicle owners' durability, weight-savings and low-maintenance needs.

Drive advancements in suspension and component technology collaboratively, surpassing the demands of our fleet and OEM customers.





Hendrickson is a leading global manufacturer and supplier of medium- and heavy-duty mechanical, elastomeric and air suspensions; integrated and non-integrated axle and brake systems; tire pressure control systems; auxiliary lift axle systems; parabolic and multi-leaf springs; stabilizers; bumpers; and components to the global commercial transportation industry.



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www.hendrickson-intl.com

Weights and rated capacities in this publication are listed in pounds (lbs.).

Actual product performance may vary depending upon vehicle configuration, operation, service and other factors.

All applications must comply with applicable Hendrickson specifications and must be approved by the respective vehicle manufacturer with the vehicle in its original, as-built configuration.

Contact Hendrickson for additional details regarding specifications, applications, capacities, operation, service and maintenance instructions.

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