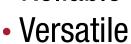
# MILITARY

**Suspension Product Line** 



- Rugged
- Durable
- Reliable













## HENDRICKSON

Across the globe, Hendrickson is known as a proven manufacturer of reliable, heavy-duty suspensions that feature superior ride and handling characteristics for severe military and commercial applications. Our legacy embodies over 100 years as a leading innovator and manufacturer of suspension systems and components for the global heavy-duty vehicle industry. Hendrickson products are designed and developed to meet stringent durability requirements and outpace the competition in terms of performance, maneuverability and quality. The robust, technologically-advanced systems designed by our engineers have proven time and time again to excel in harsh environments. In addition, our technical expertise allows us to partner with customers on rapid vehicle integration projects and customization for specific applications. Over the past century, Hendrickson has built a strong reputation for reliable, durable products, and it is precisely this reputation that drives us to continually exceed the expectations of our customers.

## **Testing and Validation Capabilities**

In 1926, Hendrickson introduced our first walking-beam suspension, a concept still widely used in commercial vehicles and military applications today. Since that time, we have continued to drive the industry with breakthrough suspension designs, manufacturing strength and rigorous testing and analysis techniques. Hendrickson uses advanced engineering software to model specific components, identify stress points and simulate suspension performance in different terrain and load conditions.





### **Long Travel Trailing Arm Suspension**

Ideal for military and severe off-highway applications, the Long Travel Trailing Arm Suspension offers outstanding maneuverability with the ultimate in wheel travel across any challenging terrain. The wide-stance airbags provide protection for the driver and vehicle equipment without sacrificing stability. The system simplifies vehicle integration with more weight savings, less system complexity and less maintenance than competitive independent suspensions at a fraction of the cost.

- Optimized geometry meets military requirements for the most demanding ride quality requirements
- Fully customizable design available in a variety of packaging and ride heights
- Adaptable to multiple load ranges, ride tuning and stability requirements
- Fabricated design made with high-strength materials to handle treacherous environments to reach over 12 in. (305 mm) of wheel travel



## **PRIMAAX® EX Severe-Duty Vocational Air Suspension System**

With its rugged, weight-efficient design, PRIMAAX® EX is a severe-duty vocational suspension that delivers advanced suspension technology for the rigorous demands of severe applications. PRIMAAX EX offers a premium ride and optimal performance by adjusting to both the load and road conditions while demonstrating outstanding articulation for superior off-highway mobility. The system features a robust structural design with optimized suspension geometry for superior stability, handling and ride quality.

- Optimized geometry contributes to high roll stiffness characteristics
- Axle connection and torque rods help reduce torsional axle stress and driveline vibration
- Option to use large-volume, low-frequency air springs to help smooth the ride in rugged off-highway conditions
- Up to 12.5 in. (318 mm) of diagonal wheel articulation for superior mobility
- Capacities of 23,000 and 26,000 lbs. (10.4 & 11.8 t) single-axle, 46,000 and 52,000 lbs. (20.9 & 23.6 t) tandem-axle and 69,000 and 78,000 lbs. (31.3 & 35.4 t) tridem-axle



## **HPAS™ High-Performance Air Suspension System**

Hendrickson's HPAS™ system is designed for flexibility and performance for today's economically minded military customers. Our comprehensive offering includes air struts and a customizable ride height control system with manual or remote control. The HPAS can reduce suspension weight over systems with conventional coil springs and dampers while providing packaging reduction over traditional air struts and airbags. The reduced packaging size allows for suspension resets for increased capacity, large tires and increased protection.

- Complete ride height with spring damper control system
- Reduced packaging size
- · Debris and environmental resistance
- Improves vehicle handling and roll stability
- Easy vehicle retrofit packages
- Provides raising and lowering capabilities

- Multiple ride height capability
- Adaptable to multiple axle combinations
- Adaptable to multiple load range requirements, increasing payload capability while maintaining ride quality at all load ranges



## **Leaf Spring Capabilities**

With experience, expertise and vision, Hendrickson continues redefining leaf spring and suspension engineering for military and commercial vehicle applications around the world. Hendrickson's innovations in exclusive manufacturing and materials technology have revolutionized leaf spring performance. This proprietary technology allowed Hendrickson engineers to produce more efficient springs that reduce weight and improve ride performance and durability.

### Parabolic Taper-leaf - Front

 Hendrickson is a leading manufacturer of parabolic taper-leaf springs, custom-designed for a variety of applications. The parabolic taper springs are constructed using our proprietary process and materials.

#### Parabolic Taper-leaf - Rear

 Hendrickson has revolutionized the design of rear heavy-section parabolic springs for various military and vocational applications.

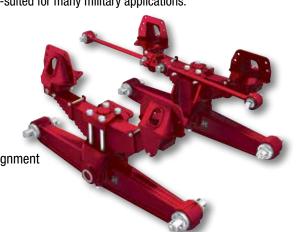
### Multi-leaf

 Hendrickson designs and produces multi-leaf springs for a variety of demanding applications. Rugged yet efficient, the multi-leaf is subject to Hendrickson's stringent design and quality assurance standards.

## RT™ Steel Leaf Spring Rear Suspension System

RT<sup>™</sup> is a robust steel spring suspension with a legacy of over 80 years of reliability in severe applications. Hendrickson-designed springs provide a consistent spring rate for longer life, as the equalizing beams distribute load equally between both axles for improved traction. The suspension provides exceptional durability, stability and traction, making RT well-suited for many military applications.

- 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 keep tire contact with the ground for improved traction
- Suspension design provides a low center of gravity for increased stability
- Up to 15 in. (381 mm) 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 of 40,000 & 46,000 lbs. (18.1 & 20.9 t)



## **HAULMAAX® EX Heavy-Duty Rear Rubber Suspension System**

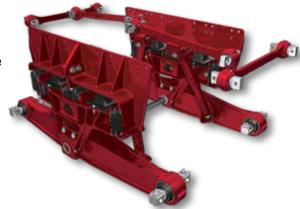
HAULMAAX EX® heavy-duty rear rubber suspensions deliver the exceptional performance required to meet the challenges of various demanding military and vocational applications by providing an ideal combination of stability, ride quality, lightweight and articulation. Diagonally-mounted rubber bolster springs act in compression and shear to deliver superior ride quality by dissipating road shock, while progressive load springs provide outstanding stability in rugged conditions.

- Progressive 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 in. (432 mm) of diagonal articulation help 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 is available in tandem capacities of 40,000, 46,000 and 52,000 lbs. (18.1, 20.9 & 23.6 t)



Through development and testing in Hendrickson's state-of-the-art lab and demanding high-articulation events on challenging proving grounds courses, the ULTIMAAX® system has withstood extensive test environments. In addition, the ULTIMAAX system has been field-proven to provide extreme durability in harsh terrain. Aside from providing a reliable system for enhanced uptime, ULTIMAAX is a low-maintenance system that contributes to reduced life cycle costs and less downtime in the following ways:

- Superior ride results in reduced road shock and vibration to the vehicle, which
  contributes to longer service life of the cab, chassis and body equipment
- No lubrication requirements
- Progressive load springs provide long service life and are easy to replace
- Bar pin end bushings designed to extend service life and reduce re-bush time
- Capacities available up to 70,000 lbs. (31.75 t)



Hendrickson has supported the military for over 80 years through various programs. For more than eight decades, we have continued to expand our involvement with the military through numerous vehicle programs including the HEMTT, HETS, PLS, MVT, MTVR, LVSR, HMMWV, GTT, MRAP vehicles and trailers.

Through our experience and our strengths in design and development, Hendrickson clearly understands that each military application is unique and thus requires a unique solution. Our involvement early in the process enables Hendrickson to deliver reliable, durable and innovative suspension systems to help support and protect our troops as they serve and protect our country.



**Hendrickson Genuine Parts** are the same quality components installed in Hendrickson original equipment suspensions — consisting of the same design, construction, performance and durability. There's only one way to maintain and protect your suspension's original performance. Ask for the name that is synonymous with the finest manufactured suspensions in the world.

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.

Call Hendrickson at 630.910.2800 or 855.RIDERED (743.3733) for additional information.



TRUCK COMMERCIAL VEHICLE SYSTEMS 800 South Frontage Road Woodridge, IL 60517-4904 USA 855.RIDERED (743.3733)