Hendrickson has supported the military for over 80 years through various programs including the M915 and M916 tractors. For more than four decades, we have continued to expand our involvement with the military through numerous vehicle programs including the HMTT, HETS, PLS, MTV, MTVR, UTV, USV and MRAP vehicles. 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.

At Hendrickson, INNOVATION NEVER RESTS...

Hendrickson Genuine Parts as 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.

PRIMAAAX® EX - Severe-duty Vocational Air or Coil Spring Suspension

With its rugged, weight efficient design, PRIMAAAX® EX is a severe-duty vocational air or coil suspension that delivers excellent suspension technology for the rigorous demands of severe applications. PRIMAAAX® EX offers the option to choose a premium ride and optimum performance by adjusting to both the load and road conditions, while demonstrating outstanding articulation for superior off-road mobility. The system is engineered with a high degree of 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 undesirable vibration
• Option to use large-volume, linear frequency air springs or heavy-duty coil springs to help smooth the ride in rugged off-road conditions
• Up to 12.5 inches (318 mm) of diagonal wheel articulation for superior mobility
• Capacities of 25,000 and 26,000 pounds (11.4, 11.8 t) single axle, 46,000 and 52,000 pounds (20.9, 23.6 t) tandem axle and 76,000 pounds (34.4 t) tridem axle

HAULMAAX® / HN® / ULTIMAAAX™ - Heavy-duty Rubber Suspensions

Providing an ideal combination of stability, ride quality, light weight and articulation, HAULMAAX®, HN® and ULTIMAAAX™ heavy-duty rubber suspensions deliver the exceptional performance required to meet the challenges of severe-duty military and vocational applications. Diagonally-mounted rubber bolster springs act in compression and shear to deliver superior ride quality for demanding road conditions, while auxiliary springs provide outstanding stability in rugged environments.

• Auxiliary 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 inches (432 mm) of diagonal articulation help keep the axle in traction for greater off-road 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
• HN is available in tandem capacities of 40,000 and 46,000 pounds (18.1, 20.9 t), HN available in tandem capacities of 40,000, 46,000 and 52,000 pounds (18.1, 20.9, 23.6 t) and ULTIMAAAX available in tandem capacities of 46,000, 52,000 and 60,000 pounds (20.9, 23.6, 26.7 t).
Across the globe, Hendrickson is known as a proven manufacturer of reliable, heavy-duty suspensions that feature best-in-class ride and handling characteristics for severe military and commercial applications. Our legacy embodies over 100 years as the 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 regards to 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.

Testing and Validation Capabilities

In 1928, Hendrickson introduced our first trailer-wheel-bearer suspension, a concept that is still widely used in commercial vehicle and military applications today. Since that time, we have continuously drive the industry with breakthrough suspension designs, manufacturing technology and rigorous testing and analysis techniques. Hendrickson uses advanced engineering software to model specific components, identify stress points and simulate suspension performance in different loads and conditions.

In addition, our sophisticated in-house research and development facility houses numerous test rigs designed to simulate real-world vehicles. This allows Hendrickson to achieve rapid development and increase truck manufacturers’ speed-to-market with on-time sensitive government projects, while still maintaining the quality and reliability that are synonymous with Hendrickson products. Through this commitment to rigorous testing and validation, our goal remains the same — to provide the most technologically advanced and robust products available.

Independent Suspension and Axle System

The independent Suspension combines Hendrickson’s chassis integration experience, manufacturing excellence, and superior engineering. Our independent suspensions are designed to handle the toughest road conditions and provide reliability and durability in applications where other suspensions cannot meet stringent demands. This system is ideal for severe off-road environments and high-speed, high-performance applications. The system features superior handling, ride quality, and durability in any environment. Our independent suspension is engineered and built for army vehicles in theater, the independent suspension and axle system offers advanced technology that is proven to thrive under challenging conditions.

• Superior mobility and maneuverability to help maintain traction in rugged, off-road terrain
• Modular design and multiple premium options allow for customization of ride quality, stability and handling characteristics
• Capable of meeting with Hendrickson’s HHP™ Hydro-pneumatic suspension for unparalleled ride quality, maneuverability and performance
• High-strength shock and coil springs designed to offer optimal ride quality and vehicle performance with ease of serviceability and minimal down time
• Axle capacities ranging from 6,000 to 29,000 lbs. (2.7 to 13.2 t)

HHP™ System Hydro-Pneumatic Suspension System

The patented technology in Hendrickson’s HHP™ Hydro-Pneumatic™ Suspension provides superior off-road vehicle with superior ride quality, handling, stability and durability with increased load capacities. The use of hydraulic spring cylinders combined with advanced hydraulic piston accumulators reduces vibration and shock from the chassis and body equipment, providing a smooth ride and extending the life of the vehicle. The HHP system has proven to provide premium performance and superior durability in a variety of demanding military applications.

• Hydraulic valves provide controlled, load-dependent damping for superior ride quality in demanding load conditions
• Cross-plumbing between spring cylinders provides high stability and handling characteristics to accommodate severe terrain, NATO double lane changes and severe maneuvers
• Advanced triple-crest piston accumulators provide a low spring rate regardless of load conditions, and equalize the load to help provide continuous contact with the ground for increased traction
• System provides raised and lowering capabilities and the ability to achieve multiple ride heights
• Optional locking system automatically limits the ride height in situations where movement of the vehicle platform is not desired, such as during loading, unloading, loading, or towing communications
• Power steering and hydraulic brakes due to change in load no power / fuel consumption while vehicle is in motion due to closed system
• Adaptable to multiple axle combinations and load range requirements

Hendrickson’s HHP™ is designed for flexibility and performance for today’s economically minded military customers. The HHP replaces traditional coil springs, and bags and damping technology while remaining performance in one package. Our comprehensive offering includes a wide range of independent ride control systems (manual or remote control). The HHP can reduce suspension weight by up to 50 percent over conventional coil springs and dampers, while providing a positive, controlled ride reduction over traditional air axles and bags. The reduced packaging size also allows for suspension systems for increased capacity, larger tires and increased protection.

HPAS™ High-Performance Air Suspension

Hendrickson’s HPAS™ is designed for durability and performance for today's economically minded military customers. The HPAS replaces traditional coil springs, and bags and damping technology while remaining performance in one package. Our comprehensive offering includes a wide range of independent ride control systems (manual or remote control). The HPAS can reduce suspension weight by up to 50 percent over conventional coil springs and dampers, while providing a positive, controlled ride reduction over traditional air axles and bags. The reduced packaging size also allows for suspension systems for increased capacity, larger tires and increased protection.

HPAS™ High-Performance Air Suspension

HPAS™ High-Performance Air Suspension

With experience, expertise and drive, Hendrickson continues to redefine leaf spring and suspension engineering for military and commercial vehicle applications around the world. Hendrickson’s innovations in exclusive manufacturing and materials technology have continued 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

Parabolic Taper-leaf – Rear

Hendrickson has revolutionized the design of heavy-segment suspension systems for severe 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 all of Hendrickson’s stringent design and quality assurance standards.

RT” Durable Steel Leaf Spring Suspension

RT” is a robust steel suspension system with a legacy of over 50 years of reliability in some of the most severe applications. Hendrickson designed spring provide a consistent ride for longer life, in the equally bearings distribute load equally between both ends for improved ride. The suspension provides exceptional durability, stability and traction, making it 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 bearings utilize a central pivot point to help keep the contact with the ground for improved traction
• Suspension design provides a lower center of gravity for increased stability
• Up to 15 inches (381 mm) of diagonal articulation for outstanding traction and mobility
• Rugged leaf-to-leaf connection extends bushing life and allows easy assembly alignment
• Optional chock kit available for improved ride
• Tandem suspensions up to 65,000 lbs (29.5 t)
the ability to partner with customers on rapid vehicle integration projects and customization for specific environments. Hendrickson products are designed and developed to meet stringent durability requirements and outpace the competition in regards to 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 develop a variety of advanced technology that is proven to thrive under challenging conditions.

- Superior mobility and maneuverability to help maintain traction in rugged, off-road terrain.
- Modular design and multiple suspension options for a variety of ride quality, stability and handling characteristics.
- Capable of mating with Hendrickson's HHP Hydro-pneumatic suspension for unparalleled ride quality, maneuverability and performance.
- High-gain and variable sub-frame design for improved ride and handling performance of vehicle stability and handling capability.
- Advanced shock and coil springs designed for optimal weight and performance with ease of service and minimal down time.
- Axle capacities ranging from 6,000 to 29,000 lbs.

The Independent Suspension System combines Hendrickson’s chassis integration experience, manufacturing excellence, and dedication to rigorous testing and validation to deliver world-class independent suspension systems for commercial vehicle applications around the world. Hendrickson’s innovations in exclusive manufacturing and materials technology have revolutionized independent suspension performance. This proprietary technology allowed Hendrickson to engineer more efficient suspensions that reduce weight and improve ride performance and durability.

Hendrickson’s HPAS™ (Hydro-Pneumatic Suspension System) is designed for flexibility and performance for today’s economically-minded military customers. The HPAS replaces traditional coil springs, air bags and damper technology while increasing performance in one package. Our suspension System offers an ideal ride and a customizable ride height control system (manual or remote control). The HPAS can reduce suspension weight by up to 50 percent over conventional coil spring and dampers, while providing a more positive suspension feel over traditional air struts and air bags. The reduced packaging size allows for suspension height increases for increased capacity, large tires and increased payload.

- Complete ride height with spring damper control system
- Provides raising and lowering capabilities
- Multiple ride height capability
- Improved vehicle handling
- Increased rollover stability
- Adaptable to multiple axle combinations
- Adaptable to multiple load requirements, increased payload capability while maintaining ride quality at all load extremes.

Leaf Spring Capabilities
With experience, expertise and drive, Hendrickson continues to redefine 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 to engineer more efficient springs that reduce weight and improve ride performance and durability.

Parabolic Taper-leaf - Front
- Provides the hardware and features of parabolic taper-leaf spring systems, custom designed for a variety of applications. The parabolic taper-leaf system is used in proprietary procedures and projects.

Parabolic Taper-leaf - Rear
- Hendrickson has revolutionized the design of rear heavy-section parabolic taper-leaf springs for various military and operational applications.

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

RT™ Durable Steel Leaf Spring Suspension
RT™ is a robust steel spring suspension with a legacy of over 80 years of reliability in some of the most severe applications. Hendrickson’s RT™ leaf springs provide a consistent spring rate for larger life, in the equalizing bears, distribute load equally between both ends for improved ride. The suspension provides exceptional durability, stability and traction, making it an excellent fit 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 bearings utilize a central pivot point to help keep the contact with the ground for improved traction.
- Suspension design provides a low center of gravity for increased stability.
- Up to 15 inches (381 mm) of diagonal articulation for outstanding traction and stability.
- Rugged leaf-to-leaf connection extending bushing life and allows easy axle alignment.
- Optional shock kit available for improved ride.
- Tandem suspensions up to 65,000 pounds (29.5 t).
Independent Suspension and Axle System

The Independent Suspension combines Hendrickson’s chassis integration expertise, manufacturing know-how, and strong relationships with suppliers to deliver both proven ride and handling characteristics and low total cost of ownership. The suspension’s unique design features make it ideal for over-the-road and off-road commercial applications, including military, construction and construction equipment and mining vehicles.

In addition to the Independent Suspension, Hendrickson offers the AxleTech Suspension System. This system is designed to provide high performance and durability in a variety of demanding military applications. It is well-suited for many military applications.

Leaf Spring Capabilities

With experience, expertise and vision, Hendrickson continues to redefine 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

Parabolic leafs have revolutionized the design of rear heavy-section suspensions. The parabolic leafspring provides exceptional mobility, efficiency and performance. Rugged, lightweight, the multi-leaf is subject to all of Hendrickson’s stringent design and quality assurance standards.

Multi-leaf

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

RT™ Durable Steel Leaf Spring Suspension

RT™ is a robust steel leaf spring suspension with a legacy of over 90 years of reliability in some of the most severe applications. Hendrickson’s RT™ suspension can provide a consistent spring rate for larger trucks, as the equalizing beam distributes load equally between both axles for improved traction. The suspension provides exceptional durability, stability and traction, making it an excellent solution for many military applications.

• Genuine Hendrickson springs are made from high-strength steel and are heat-treated and shot-peened for exceptional fatigue life.
• Equilizing beams utilize a central pivot point to help keep the contact with the ground for improved traction.
• Suspension design provides a low center of gravity for increased stability.
• Up to 15 inches (381 mm) of diagonal articulation for outstanding traction and stability.
• Rugged beam-to-beam connection extends beyond frame and allows easy eye alignment.
• Optional shock kit available for improved ride.
• Torsion Bumpers up to 65,000 pounds (29.5 t)

Hendrickson’s HPAS™ is designed for flexibility and performance for today’s economically minded military customers. The HPAS replaces traditional coil springs, air bag and damper technology while maintaining performance in one package. Our comprehensive offering includes compliant axles and a customizable ride height control system (both manual or remote control). The HPAS can reduce suspension weight by up to 50 percent over current coil spring and damper systems, while providing a positive performance advantage in reduction over traditional air springs and bags. The reduced packaging size allows for suspension systems for increased capacity, large tires and increased protection.

• Complete ride height with spring damper control system.
• Provides raising and lowering capabilities.
• Easy vehicle retrofit.
• Multi-leaf ride height capability.
• Adaptable to multiple axle combinations.
• Adaptable to multiple load requirements, increasing payload capability while maintaining ride quality at all load stages.

In 1926, Hendrickson introduced our first walking-beam suspension, a concept that is still widely used in commercial vehicle and military applications today. Since that time, we have continuously driven the industry forward 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 tire and load conditions.

In addition, we’ve utilized in-house research and development facility houses numerous test rigs, subject to all of Hendrickson’s stringent design and quality assurance standards.

HPAS™ High-Performance Air Suspension
Hendrickson’s products, while often unseen, are involved in many areas of life — from the trucks that deliver groceries and other goods to retail outlets, to construction vehicles that carry goods to build homes and improve our country’s infrastructure. Hendrickson is also just as involved with supplying product for robust military vehicles that support and protect our armed forces around the world.

Hendrickson has supported the military for over 80 years through various programs including the M915 and M916 tractors. For more than four decades, we have continued to expand our involvement with the military through numerous vehicle programs including the HMTT, HETS, PLS, MTV, MTVR, USV and MRAP vehicles.

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.

At Hendrickson, INNOVATION NEVER RESTS...

PRIMAAX® EX – Severe-duty Vocational Air or Coil Spring Suspension

With its rugged, weight-efficient design, PRIMAAX® EX is a severe-duty vocational air or coil suspension that delivers unmatched suspension technology for the rigorous demands of severe applications. PRIMAAX® EX offers the advantage of a precise ride and optimal performance by adjusting to both the load and road conditions, while demonstrating outstanding articulation for superior off-road mobility. The system is capable of supporting up to 23,000 pounds (10.4 t) single-axle, 46,000 pounds (20.9 t) tandem-axle or 69,000 pounds (31.3 t) tridem-axle capacities. PRIMAAX® EX offers the following key features:

- Optimized geometry contributes to high roll stiffness characteristics
- Axle connection and torque rods help reduce transverse axle stress and tire scrub
- Option to use large volume, low frequency air springs or heavy-duty coil springs to help smooth the ride in rugged conditions
- Up to 12.5 inches (318 mm) of diagonal wheel articulation for superior mobility

HAULMAAX® / HN® / ULTIMAAX™ – Heavy-duty Rubber Suspensions

Providing an ideal combination of stability, ride quality, light weight and articulation, HAULMAAX®, HN® and ULTIMAAX™ heavy-duty rubber suspensions deliver the exceptional performance required to meet the unique challenges of various demanding military and vocational applications. Diagonally-mounted rubber bolster springs act in compression and shear to deliver superior ride quality for demanding road loads, while auxiliary springs provide outstanding stability in rugged conditions.

- Auxiliary 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 inches (432 mm) of diagonal articulation help keep the axle in traction for greater off-road 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® available in tandem capacities of 40,000 and 46,000 pounds (18.1, 20.9 t), HN® available in tandem capacities of 40,000, 46,000 and 52,000 pounds (18.1, 20.9, 23.6 t) and ULTIMAAX™ available in tandem capacities of 46,000, 52,000 and 60,000 pounds (20.9, 23.6, 26.7 t)

Call Hendrickson at 630.910.2800 for additional information.

To learn more about Military Suspension Products, call 630.910.2800 or visit www.hendrickson-defense.com

Innovative Suspension Solutions for Extreme Applications
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**PRIMAAX® EX** - Severe-duty Vocational Air or Coil Spring Suspension

With its rugged, weight-efficient design, PRIMAAX® EX is a severe-duty vocational air or coil suspension system designed to achieve outstanding suspension articulation for superior stability, handling and ride quality. 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-road mobility. The system delivers innovative suspension geometry for superior stability, handling and ride quality.

- Optimized geometry contributes to high roll stiffness characteristics
- Axle connection and torque rods help reduce transversal axle stress and undesirable vibration
- Option to use large volume, long frequency air springs or heavy-duty coil springs to help smooth the ride in rugged off-road conditions
- Up to 12.5 inches (318 mm) of diagonal wheel articulation for superior mobility
- Capacities of 23,000 and 26,000 pounds (10.4, 11.8 t) single axle, 46,000 and 52,000 pounds (20.9, 23.6 t) tandem axle and 76,000 pounds (34.3 t) tri-axle

**PRIMAAX® EX** offers 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
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**HAULMAAAX® / HN® / ULTIMAAX™** - Heavy-duty Rubber Suspensions

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