# TRALER COMMERCIAL VEHICLE SYSTEMS



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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; parabolic and multi-leaf springs; stabilizers; bumpers; and components to the global commercial transportation industry. Everyday 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 and fleets. Hendrickson's growing global position in the commercial transportation industry and its on-going drive to provide products and services benefits truck and trailer manufacturers, fleets and owner operators around the world. Our tagline, *The World Rides On Us*<sup>®</sup>, not only reflects the spirit of the brand but also Hendrickson's 100 plus years of engineering for efficiency.

# **VOCATIONAL** SUSPENSION SYSTEMS

## **INTRAAX®**

#### Integrated air suspension / axle / brake system

- LDA<sup>™</sup> Large-Diameter Axle reduces weight, improves performance and increases stiffness\*
- TRI-FUNCTIONAL<sup>®</sup> Bushing up to a five-year limited warranty\*\*
- QUIK-ALIGN<sup>®</sup> axle alignment system standard
- Available with UBL<sup>™</sup> UNDER BEAM LIFT<sup>™</sup> kits\*
- 10-year warranty on axle / beam connection\*\*
- Air disc brakes available including Hendrickson's MAXX22T™ optimized trailer air disc brake\*
- Available with TIREMAAX<sup>®</sup> automatic tire inflation systems
  - \* Available on most models \*\* Contact your local Hendrickson representative for complete warranty terms, conditions and limitations.

See L614 INTRAAX brochure

## **INTRAAX® AANT 23K**

Narrow-bushing, tapered-beam air suspension / axle / brake system

- Lightweight integrated trailer suspension solution
- Optimum performance for straight-frame platforms, container chassis, tankers, bottom dumps, grain and livestock trailers
- Installation efficiency tapered hangers allow installation without additional gussets on trailer frames as narrow as 4 in.
- ZMD<sup>®</sup> ZERO MAINTENANCE DAMPING<sup>®</sup> shockless ride technology available
- Hendrickson MAXX22T™ optimized trailer air disc brake available
- Ride heights from 12 to 19 in.
- Galvanized frame bracket option for bolt-on frame brackets
- Capacity of 23,000 lbs.

### **INTRAAX<sup>®</sup> AAT 23K / 25K / 30K**

Fully integrated top-mount air suspension / axle / brake system

- Hendrickson's first integrated trailer suspension system setting the industry standard for weight savings, reduced maintenance and outstanding durability
- Designed for platforms, tankers, dumps, grain, livestock and specialty trailers for on- and off-highway applications
- Ride heights from 13.5 to 19 in.
- RCA raised-center axle available in 5 in. axle diameter only
- Hendrickson MAXX22T<sup>™</sup> optimized trailer air disc brake available
- Galvanized frame bracket option for bolt-on frame brackets
- Capacities of 23,000, 25,000 and 30,000 lbs.

# **INTRAAX® AANL 23K**

#### Low-ride height / liftable air suspension / axle / brake system

- Optimal for low-ride height drop-decks, lowboys and liftable applications on platforms, tankers and specialty trailers for on- and off-highway applications
- One of the lightest low-ride-height / liftable trailer air suspensions on the road today by an average of 75 lbs.
- Hendrickson MAXX22T<sup>™</sup> optimized trailer air disc brake available
- Ride heights from 6.5 to 17 in.
- Galvanized frame bracket option for bolt-on frame brackets
- Capacity of 23,000 lbs.

## **INTRAAX® AANLS 20K**

Complete integrated system in a highly compact, low-ride-height assembly

- Compact system ideal for the tight confines of autohaulers, moving vans and other drop-frame van trailers
- Up to 120 lbs. lighter than comparable air suspensions
- Offers a choice of 15 in. brakes needed for 19.5 in. tires or conventional 16.5 in. brakes
- Hendrickson MAXX22T<sup>™</sup> optimized trailer air disc brake available
- Ride heights from 6.25 to 12 in.
- Capacity of 20,000 lbs.





Shown with optional UBL<sup>™</sup> UNDER BEAM LIFT<sup>™</sup>







#### **INTRAAX® AAEDT 30K**

#### Top-mount system for extreme-duty applications

- Tames the grueling demands of loggers, chip vans, dumps, tankers, platforms and specialty trailers
- Low-pressure air springs with steel pistons
- High-damping, extended-service shock absorbers
- Heavy-duty options including rear-mount shocks and chain down stops
- Ride heights from 14 to 17 in.
- Galvanized frame bracket option for bolt-on frame brackets



• Capacity of 30,000 lbs.

#### INTRAAX<sup>®</sup> AAL 23K / 25K / 30K

Low-ride-height / liftable air suspension / axle / brake system

- For drop-decks, lowboys, platforms, tankers, vans and specialty trailers in on- and off-highway applications
- All the advantages of INTRAAX<sup>®</sup> including low weight, high durability and integrated system performance with minimal maintenance
- Ride heights from 6.5 to 19 in.
- RCA raised-center axle available in 5 in. axle diameter only
- Hendrickson MAXX22T<sup>™</sup> optimized trailer air disc brake available
- Galvanized frame bracket option for bolt-on frame brackets
- Capacities of 23,000, 25,000 and 30,000 lbs.



Low-ride-height / liftable system for extreme-duty applications

- Designed for the tough demands of loggers, chip vans, dumps, tankers, straight and drop-deck platforms and specialty trailers
- Low-pressure air springs with steel pistons and full bottom plate coverage
- High-damping, extended-service shock absorbers
- Heavy-duty options include rear-mount shocks and chain down stops
- Ride heights from 9 to 19 in.
- Galvanized frame bracket option for bolt-on frame brackets
- Capacity of 30,000 lbs.

#### INTRAAX° SP AAZNT 23K / 46K / 69K AAZL 23K / 46K

#### Platform sliders designed for flatbed and drop-deck trailers

- Fully-integrated, air suspension slider system features outstanding weight savings and high durability with minimal maintenance
- Ride heights from 6.5 to 18 in.
- Available in both top-mount and low-ride models
- Hendrickson MAXX22T<sup>™</sup> optimized trailer air disc brake available (top-mount models only)
- Capacity of 23,000 lbs. (single-axle) configurations, 46,000 lbs. (tandem-axle) configurations and 69,000 lbs. (tri-axle) configurations

See L792 INTRAAX SP flyer



Shown with optional

rear-mount shocks

chain down stops and

# **ON-HIGHWAY** SUSPENSION SYSTEMS

# VANTRAAX<sup>®</sup> / ULTRAA-K<sup>®</sup>

Low-maintenance slider systems for dry-freight, refrigerated and specialty van trailers

- Integrates INTRAAX<sup>®</sup> suspension and K-2<sup>®</sup> slider box technology for enhanced durability and industry leading weight savings
- Equipped with QUIK-DRAW<sup>®</sup> pneumatic pin-pull mechanism for easy wheel-base adjustments
- DST®\* Dock Stabilizing Technology™ and SURELOK® system options available for stable and efficient payload transfer
- LDA<sup>™</sup> Large-Diameter Axles provide heavy-duty performance from an ultra-light axle
- Hot dip wax and soft coat finish available for lasting corrosion resistance
- Hendrickson MAXX22T<sup>™</sup> optimized trailer air disc brake available\*
  \* DST and air disc brakes not available on HKANL and HKAL.

See L585 VANTRAAX brochure See L1222 ULTRAA-K flyer





#### QUIK-DRAW®

#### **ULTRAA-K® UTKNT 40K**

- Stronger than VANTRAAX<sup>®</sup> 40K HD model
- Lightweight tandem slider technology
- Standard ZMD<sup>®</sup> ZERO MAINTENANCE DAMPING<sup>®</sup> shockless ride technology
- Pivoting mud flap brackets help prevent mud flap damage
- Protected height control valve mounting location
- Hot dip wax, exclusive to ULTRAA-K<sup>®</sup>, provides a limited ten-year structural corrosion warranty\*\*
- Capacity of 40,000 lbs.
- \*\* Contact your local Hendrickson representative for complete warranty terms, conditions and limitations.

#### **HKANT 23K**

- Single-axle slider
- Up to 200 lbs. lighter than most competitive systems
- Capacity of 23,000 lbs.





#### **HKANT 40K**

- Lightweight tandem slider
- Engineered for dry-freight and refrigerated vans
- Capacity of 40,000 lbs.



#### **HKANT 46K**

- Tandem slider tailor-made for heavy-duty applications
- Up to 175 lbs. lighter than similar 46,000 lb. capacity systems
- Capacity of 46,000 lbs.

#### HKANT 46K - Wide spread

- 121 in. spread tandem
- Saves more than 350 lbs. when compared with equivalent systems
- Capacity of 46,000 lbs.

#### **HKARL 46K**

- Lightweight ramp-ready air slider suspension
- Features 30×6.5 in. ramp bay
- Eliminates heavy, expensive spacer tubes
- Capacity of 46,000 lbs.

#### HKANL 23K

- Lightweight liftable single axle slider
- Designed for dry, refrigerated and specialty van market
- Increased suspension up travel for lift applications
- Capacity of 23,000 lbs.



#### HKAL 46K

- Low-ride-height tandem
- Suitable for drop-frame van applications
- Capacity of 46,000 lbs.



#### HKAT 50K

- Heavy-duty tandem slider
- Ideal for carrying heavy loads and running on secondary roadways
- Capacity of 50,000 lbs.



#### HKANT 69K23 / HKAT 69K25 / HKAT 75K25

- Lightweight tridem slider
- Designed for moving freight across North American borders
- Available in 60 and 72 in.axle spacing 49 in.axle spacing is available for HKANT 69K23 only

# **SPECIALTY / VOCATIONAL** suspension systems

# CONNEX<sup>™</sup> ST CXSL 25K

Trailer steerable suspension system

- · Ideal for multi-axle trailer applications
- Assists with compliance to Ontario SPIF regulations
- Helps increase maneuverability
- Standard with RTR® READY-TO-ROLL® wheel-end packages, HXL3® or HXL5®
- Available with TIREMAAX<sup>®</sup> automatic tire inflation systems
- Ride heights from 14 to 19 in.
- Capacity of 25,000 lbs. See L1243 CONNEX ST flyer

## **CONNEX™ CXU 23K / 25K**

#### Unitized air suspension and axle system

- Ideal for low-ride height applications that require 12.25 and 16.5 in. drum brake packages
- Available with TIREMAAX<sup>®</sup> automatic tire inflation systems
- Standard with RTR<sup>®</sup> READY-TO-ROLL<sup>®</sup> wheel-end package, HXL5<sup>®</sup>
- Standard with QUIK-ALIGN® pivot connection
- Capacities of 23,000 and 25,000 lbs.

#### CXU 23K / 25K

- Galvanized frame bracket option for bolt-on frame brackets
- Ride heights from 5.5 to 9 in.

#### CXY 23K / 25K

- Yoke-type suspension; ideal for applications such as lowboys
- Designed to be used in conjunction with CXU suspensions
- Ride heights from 6.5 to 9 in.

# **TRLAXLE**®

#### Non-integrated trailer axles

- Lightweight and durable non-integrated trailer axles are available for use with HT series suspensions and other approved suspension systems, both air and mechanical
- Straight axle configurations featuring industry-standard spindles for a variety of vehicle applications
- Available with industry-standard drum brakes in various sizes, Hendrickson linings and wheel-end arrangements
- Hendrickson MAXX22T<sup>™</sup> optimized trailer air disc brake available
- Available with TIREMAAX<sup>®</sup> automatic tire inflation systems

See L961 TRLAXLE flyer See L1223 HTA flyer See L979 HCA flyer





### **HT<sup>™</sup> Series**

#### Reliable, affordable and flexible 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 five-year limited warranty\*
- QUIK-ALIGN® axle alignment system standard on most models
- 5-year / 500,000-mile structural warranty\*
- Off-the-shelf replacement parts See L632 HT brochure

#### **Top-Mount Air Suspensions** (HT190T, HT230T, HT250T and HT300T)

- Ride heights from 12 to 23 in.
- High control versions available for certain models of all rated capacities
- Some models available for use with steerable axles and air disc brakes
- Capacities of 20,000, 23,000, 25,000 and 30,000 lbs.

#### **Underslung Air Suspensions** (HT190U, HT250US and HT300US)

- Ride heights from 3.5 to 17 in.
- High control versions available for certain models of all rated capacities
- Some models available for use with steerable axles
- Capacities of 20,000, 25,000 and 30,000 lbs.

#### **Y-Beam Air Suspensions** (HT250YS and HT300YB)

- Ride heights of 6.5, 7.5 and 9 in.
- For use in conjunction with HT250US and HT300US or other suspensions on applications such as lowboys, etc.
- Capacities of 25,000 and 30,000 lbs.

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

#### HSDS<sup>®</sup> Hendrickson severe-duty system

HT230T

**HT250US** 

HT300YB

- Delivers rugged dependability and outstanding ride quality and control for curtainsiders, plat form trailers, tippers, tankers and container chassis
- Patented beam-to-axle connection<sup>A</sup> for rugged performance and durability in severe operating environments
- Ride heights from 14.5 to 23 in.
- Quad shocks and rebound limiter available
- Lift kits available for certain ride heights
- Capacities up to 30,000 lbs.

#### See L1184 HSDS flyer

This product is covered by at least one or more U.S. and/or foreign patents and/or pending U.S. and/or foreign patent applications. See Hendrickson for details.









# WHEEL-END / BRAKE OPTIONS

# RTR<sup>®</sup> READY-TO-ROLL<sup>®</sup>

Extended-life wheel-end packages

With RTR<sup>®</sup> READY-TO-ROLL<sup>®</sup> wheel-end packages, Hendrickson offers fully integrated solutions that help minimize operating costs and improve performance. RTR wheel-end packages are available on INTRAAX<sup>®</sup>, INTRAAX<sup>®</sup> SP, VANTRAAX<sup>®</sup>, ULTRAA-K<sup>®</sup>, CONNEX<sup>™</sup> and CONNEX<sup>™</sup> ST integrated air suspension systems and TRLAXLE<sup>®</sup> non-integrated axles.

Hendrickson wheel-end systems deliver low-maintenance, durability and reduced weight with the convenience of a single-source supplier.

# HXL7°, HXL5° and HXL3° Wheel-ends

- Field serviceable with Hendrickson approved components
- Cost-effective, extended service option that delivers durability and outstanding performance
- Standard with Hendrickson's patented wheel-end ventilation system<sup>A</sup>
- Available with TIREMAAX® PRO tire pressure control system
- Set at light preload for improved bearing and seal life
- Tamper deterrent
- PRECISION240<sup>®</sup> and PRECISION320<sup>®</sup> spindle nut systems allow for ultra-precise bearing adjustment
- Extended service seal resists leaking and helps prevent contamination ingress
- Ductile iron, aluminum or Dura-Light Hub<sup>®</sup> available

▲ This product is covered by at least one or more U.S. and/or foreign patents and/or pending U.S. and/or foreign patent applications. See Hendrickson for details.

# HXL7® Hendrickson Extended-Life 7-Year System™

- 7-year limited warranty\*
- Semi-fluid grease
- Corrosion resistant hubcap





# HXL5<sup>®</sup> Hendrickson Extended-Life 5-Year System<sup>™</sup>

- 5-year limited warranty\*
- Semi-fluid grease
- Die cast aluminum hubcap

# HXL3<sup>®</sup> Hendrickson Extended-Life 3-Year System<sup>™</sup>

- 3-year limited warranty\*
- Affordable oil-bath wheel-end
- Die cast aluminum hubcap

# **Brake Options**

Extend intervals between brake service

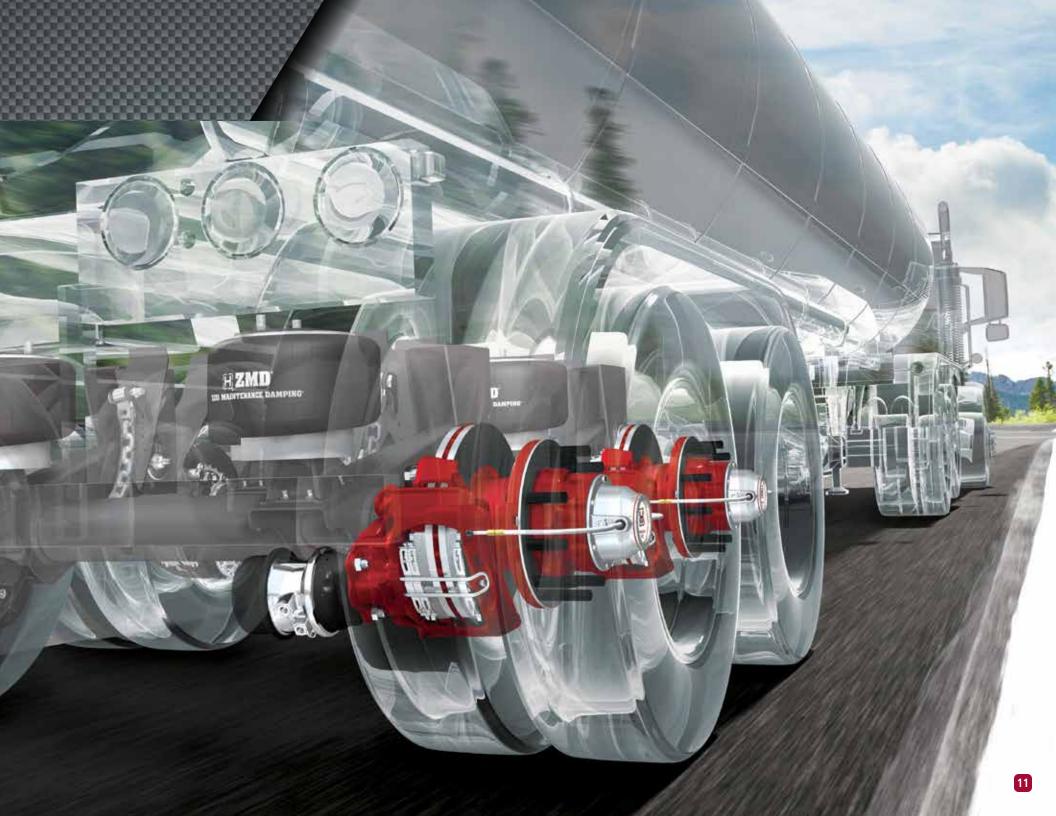
- HXS<sup>®</sup> Hendrickson Extended Service<sup>™</sup> brakes with thicker lining blocks extend brake life
- Wide HXS 16.5 × 8.625 in. brakes can help increase miles between lining changes
- Cam Tube System<sup>™</sup> for trailer suspensions helps extend life of brake camshafts and bushings

# Hendrickson MAXX22T™

#### Optimized trailer air disc brake system

- Proprietary Hendrickson MAXX22T<sup>™</sup> brake caliper
- Lightweight rotor and torque plate deliver unparalleled weight savings over ductile iron designs
- Enhanced weight savings with the Dura-Light Hub® option
- Bolt-on dust shield for easier installation and maintenance
- The only ADB system offered with Hendrickson comprehensive warranty\*coverage





# **FEATURES / OPTIONS**

# LDA<sup>™</sup> Large-Diameter Axle

Superior axle design



- LDA<sup>™</sup> Large-Diameter Axles featured on most INTRAAX<sup>®</sup> and VANTRAAX<sup>®</sup> suspension systems
  - Up to 31 lbs. lighter than comparable 5 in. axle, allowing more cargo per load
  - Bending and torsional stiffness increased by as much as 22 percent for reduced deflection
  - Axle wrap, spindle and spider mounting surfaces are machined in one step to ensure precise brake geometry and wheel positioning
  - Brake hardware attached to trailing arms rather than welded to axle, minimizing axle stress

# Low Maintenance and Convenience

Time and money saving features

- Simple, functional design uses fewer parts that means fewer parts to wear out
- QUIK-ALIGN<sup>®</sup> fast and easy axle realignment system requires no welding or special tools
- TRI-FUNCTIONAL<sup>®</sup> Bushings proven technology for miles of dependable service
- Single source for comprehensive technical support, training and warranty

# Lift Kits

- CL, HTCL, VCL and HTBL lifts available for use on select HT Series models with capacities of 23,000 to 30,000 lbs.
- SBL<sup>®</sup> SIDE BEAM LIFT<sup>®</sup> and CL center lift kits available for HT250US models

# **UBL<sup>™</sup> UNDER BEAM LIFT<sup>™</sup>**

Adds operational flexibility and helps extend tire life, improve maneuverability and increase fuel economy

- Combine with INTRAAX<sup>®</sup>, VANTRAAX<sup>®</sup> and some HT<sup>™</sup> Series suspension models
- No chains, cables or metal-on-metal parts to wear or bind
- Bolt-on UBL feature is compatible with galvanizing and improves installation efficiency



# **Corrosion Protection / Coatings**

Hendrickson coatings help protect your investment

- Hot Dip Wax: Exclusive to ULTRAA-K<sup>®</sup>, a self-healing, pliable coating that re-seals itself in areas with minimal damage. Entire slider box is coated for exceptional cover age and comes with a 10-year structural corrosion warranty.\*
- **Black or Grey Soft-Coat:** A self-healing, pliable, water resistant coating that re-seals itself in areas with minimal damage
- Hot-Dipped Galvanized: Zinc coating for improved chip and corrosion resistance. Available on INTRAAX<sup>®</sup> bolt-on frame brackets and limited VANTRAAX<sup>®</sup> and ULTRAA-K<sup>®</sup> slider boxes
- Black Primer: Uses a multi-stage cleaning and preparation process for high adhesion
- AAXTREME COAT<sup>®</sup>: Premium brake shoe coating provides superior corrosion protection in tough environments
- **E-coat:** All Hendrickson brake shoes are standard with high quality E-coat for improved resistance to rust-jacking
- \* Contact your local Hendrickson representative for complete warranty terms, conditions and limitations.





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# **TIREMAAX® PRO**

Advanced tire pressure control system

- Automatically inflates tires using the trailer air supply
- Prevents over-inflation by relieving air from the tires back through the controller
- Patented controller<sup>A</sup> is designed to recognize normal pressure increase due to operation
- Constantly equalizes tire pressure across all wheel positions
  - This product is covered by at least one or more U.S. and/or foreign patents and/or pending U.S. and/or foreign patent applications. See Hendrickson for details.



# ZMD<sup>®</sup> ZERO MAINTENANCE DAMPING<sup>®</sup>

Shockless ride technology

- Reduces suspension maintenance by eliminating shocks
- Air spring performs damping function by exchanging pressurized air through channels
- Uniform damping levels
- Robust chain down stop provides maximum durability
- Reduces risk of CSA violations from leaking or worn shocks
- Superior driver comfort, ride quality and cargo protection
- Standard on ULTRAA-K<sup>®</sup> and available as an option on select VANTRAAX<sup>®</sup> and INTRAAX<sup>®</sup> models



# OUR COMMITMENT

**ENGINEERED FOR EFFICIENCY**<sup>™</sup> builds upon our legacy as innovators and manufacturers of suspension systems and components for the global medium- and heavy-duty vehicle industry.

Serve the transportation industry with innovative products that deliver improved productivity, profitability and value.

Supply the commercial vehicle industry around the world with durable and cost-effective, advanced ride solution technologies.

Champion dedicated leadership and employees who uphold our proud heritage through creativity, integrity and superior service.

Develop superior, differentiated products that promote leading-edge manufacturing and distribution processes.

Forge strategic relationships that allow us to engineer and manufacture systems, modules and components that meet commercial vehicle owners' needs for durability, weight savings and minimized maintenance.

Advance the design of suspension and component technology by working cooperatively to exceed the demands of our fleet and OEM customers.



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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.

# **HENDRICKSON**

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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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