**HSDS**<sup>®</sup> Trailer Severe-Duty Air Suspension Systems

- Outstanding reliability
- Low-maintenance, long-life components
- Lightweight for increased payload
- Wide range of applications
- Superior ride quality



Long-Life Wheel-Ends



To learn more about HSDS, call Hendrickson or visit our global websites for additional information.



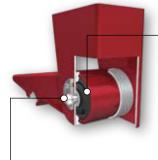
HENDRICK

Low Ride Drum 12t

**Top Mount Disc** 

12t

# **HSDS**<sup>®</sup> Features and Benefits



#### TRI-FUNCTIONAL® Bush

- Controls vertical, horizontal and roll forces of trailer
  - Optimises ride softness, control and stability
- Absorbs road shock while maintaining lateral tracking and superior roll resistance

#### **Heavy-Duty Shock Absorbers**

HHEN

 Higher damping helps reduce road vibrations

#### **QUIK-ALIGN®** Pivot Connection

- Fast and easy axle alignment
- Requires no welding or special tools

#### Wheel-Hub

Heavy-duty hub design

#### Large Heavy-Duty Air Springs

- Mounted close to the axle
- Superior ride quality

## • Allows brake service without disturbing wheel-end bearings and seals

nub design

#### High-Quality HXS<sup>™</sup> Brake Lining

HHENDR

- High-quality, thicker HXS brake lining helps improve lining life and extend service intervals
  - Parallel spindle with large diameter, high-quality, heavy-duty bearings

#### Internally Vented Wheel-End

- Filter system to dissipate heat and to help prevent contamination from entering wheel-end
  - Large volume of semi-fluid grease for extended bearing life



#### - PRECISION320® Nut System

- For ultra-precise bearing adjustment
- Extended bearing and wheel seal life



#### Cam Tube System<sup>™</sup>

- Grease retention and extended maintenance intervals
- Single, easy-access grease fitting
- Premium double-lip seals
- Helps protect against potential contamination

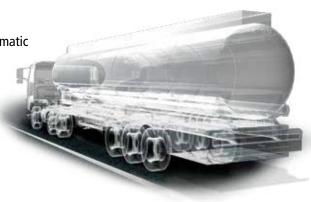
## Low Cost of Ownership

## Long-Life, Low-Maintenance

HSDS<sup>®</sup> is a low-maintenance and durable system that helps contribute to reduced lifecycle costs and less downtime in the following ways:

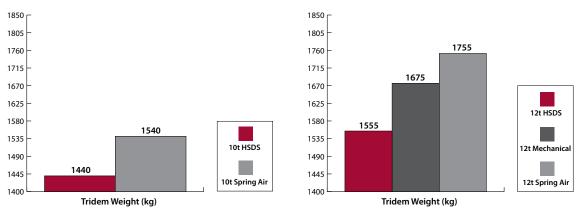
- Proven structural integrity based on decades of research and development
- High-quality, heavy-duty, low-maintenance wheel-end and brake systems
- Support for reducing tyre wear through the optional TIREMAAX<sup>®</sup> PRO automatic tire pressure control system
- Outboard mounted drum for easy and quick brake shoe changes
- Easy alignment system
- Progressive bush rate and semi-active air springs provide long service life
- Superior recommended maintenance intervals and warranty\*

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



## Lightweight for Higher Payloads and Fuel Savings

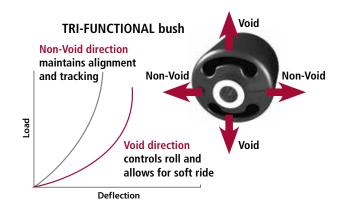
The HSDS system is designed to be lightweight without sacrificing reliability. Strong components with advanced engineering help save up to 293 kilograms per tridem installation compared to competitive mechanical or spring air suspensions. This helps support trailer fleets in their efforts to carry more payload and reach better fuel efficiency.

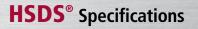


Above data is based upon internal testing and / or published specifications.

## **Excellent Ride Quality for Protection of Goods and Equipment**

The HSDS system helps protect the trailer structure and the goods carried through a unique combination of the TRI-FUNCTIONAL<sup>™</sup> bushes, as well as air springs and shock absorbers. The air springs are located close to the axle to support more of the load compared to competitive air suspensions. The bushings increase spring rate to match the operating conditions and heavy-duty shocks dampen additional vibrations. The result is HSDS's unique balance of empty and loaded ride quality and loaded stability, which not only helps improve driver comfort but also helps protect the cargo and chassis from damage.







## Flexible options to suit various applications and trailer designs

|   | MODELS   |  |  |  |   |
|---|--|--|--|--|---|
|   | HSDS 10t   | HSDS U 10t                               | HSDS 12t                                 | HSDS U 12t                               | HSDS 13.6t                                  |
| BEAM TYPE   | Top-Mount  | Underslung                               | Top-Mount                                | Underslung                               | Top-Mount                                   |
| SUSPENSION CAPACITY <sup>1</sup><br>tonnes (lbs.) | 10t (22,000 lbs.)<br>at 6.9 Bar (100 psi)  | 10t (22,000 lbs.)<br>at 5.0 Bar (72 psi) | 12t (26,500 lbs.)<br>at 6.0 Bar (87 psi) | 12t (26,500 lbs.)<br>at 6.1 Bar (88 psi) | 13.6t (30,000 lbs.) at<br>6.9 Bar (100 psi) |
| AXLE DIAMETER mm (in.)                            | 127 (5)  |  |  |  |   |
| RIDE HEIGHTS mm (in.)                             | 355 - 580 (14 - 23)  | 140 - 390 (5.5- 15.5)                    | 370 - 580 (14.5 - 23)                    | 140 - 390 (5.5- 15.5)                    | 370 - 580 (14.5 - 23)                       |
| AXLE TRACKS <sup>2</sup> mm (in.)                 | 1,727 - 2,229 (68.0 - 87.75)   |  |  |  |   |
| AXLE SPACING mm (in.)                             | 1,245 - 1,829 (49 - 72)  |  |  |  |   |
| AXLE CONFIGURATION                                | 1, 2, 3 or 4 axles   |  |  |  |   |
| HUB PILOTED HUBS                                  | 10 studs × 11.25 in. (286 mm) 10 studs × 335 mm (13.2 in.) 8 studs × 275 mm (10.5 in.)   |  |  |  |   |
| BRAKES mm (in.)                                   | $380 \times 220 (15 \times 8.625) \text{ HXS}^{\circ}$ $420 \times 180 (16.5 \times 7) \text{ HXS}$ $420 \times 220 (16.5 \times 8.625) \text{ HXS}$ |  |  | 8.625) HXS                               |   |
| FRAME TYPES                                       | Steel or Aluminum  |  |  | Steel                                    |   |
| SUSPENSION WEIGHT<br>RANGE <sup>3</sup> kg (lbs.) | 465 (1,025) -<br>535 (1,179)   | 500 (1,124) -<br>569 (1,254)             | 504 (1,112) -<br>575 (1,267)             | 510 (1,124) -<br>580 (1,279)             | 542 (1,195) -<br>597 (1,317)                |

1. Suspension and axle rating only. Brakes rated separately.

2. Contact Hendrickson to discuss you design requirements.

3. Weight includes suspension, axle, brakes, wheel-ends and slack adjusters.

## Value-Added Options

**UBL<sup>™</sup> UNDER BEAM LIFT<sup>™</sup>** is a lightweight lift axle system that offers cost savings and operational flexibility.

**TIREMAAX™ PRO** Automatic tyre pressure control system helps enhance fuel efficiency and tyre life. Balances pressure in all tyres, inflating or deflating as required to maintain optimum tyre pressure.

**OFF-HIGHWAY ARL KIT** Heavy-duty down stop chains recommended for high articulation and off-highway applications.

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.

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, and operation, service and maintenance instructions.

Call Hendrickson or visit our global websites for additional information.

Hendrickson

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