

HSDSTM Hendrickson Severe-Duty Air Suspension System

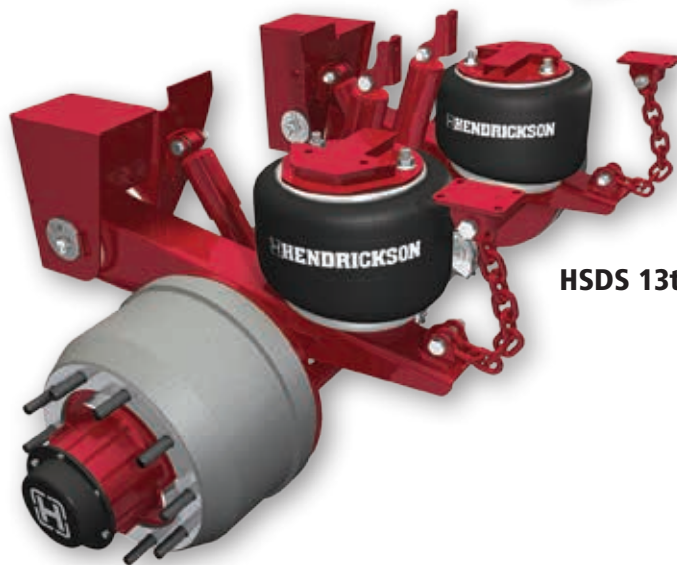
- Outstanding durability
- Increased payload
- Superior ride quality



HSDS 10t



HSDS 12t



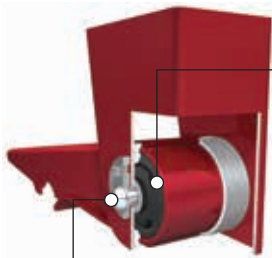
HSDS 13t

To learn more about HSDS
call 866.743.3247 or visit
www.hendrickson-intl.com

 **HENDRICKSON**
The World Rides On Us[®]

H HSDS™ 13t

Severe-Duty Air Suspension System



- TRI-FUNCTIONAL® bushing adsorbs road shock while maintaining lateral tracking and superior roll resistance
- Controls vertical, horizontal and roll forces of trailer
- Optimizes ride softness, control and stability

- Four heavy-duty shock absorbers to reduce rough road vibrations

- Large heavy-duty air springs mounted close to the axle result in superior ride performance
- Suspension will carry 28,700 lbs. at 96 PSI air pressure

- QUIK-ALIGN® pivot connection
- Fast and easy axle alignment
- Requires no welding or special tools



- Heavy-duty down stops prevent overextension of air springs and shocks

- Outboard mounted brake drum allows brake service without disturbing wheel-end

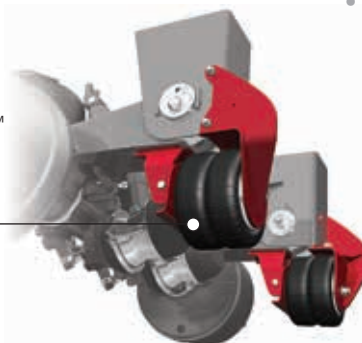


- Heavy-duty 30,000 lb. wheel hub

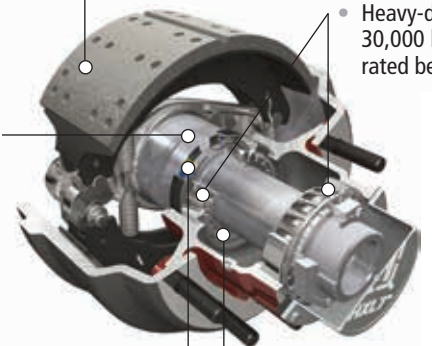
- High quality brake lining and 8.625 inch wide brake drum for long lining life

- Optional TIREMAAX® tire inflation system

- Optional UBL™ UNDER BEAM LIFT™ lift axle mechanism



- Internally vented wheel-end with patented filter system to prevent contamination from entering wheel-end



- Heavy-duty 30,000 lb. rated bearings

- Superior wheel seal with millions of miles of proven performance

- Large volume of grease for extended bearing life

Keeping You on the Road Longer

The HSDS™ system is designed to be lightweight without sacrificing durability. From component and suspension simulation modeling to rigorous real-world testing scenarios in Hendrickson's state-of-the-art facility to demanding test cycles and high-articulation events on challenging proving grounds courses, the HSDS system withstands extensive test environments. The HSDS is a low maintenance and durable system that helps contribute to **reduced life cycle costs** and **less down time** in the following ways:

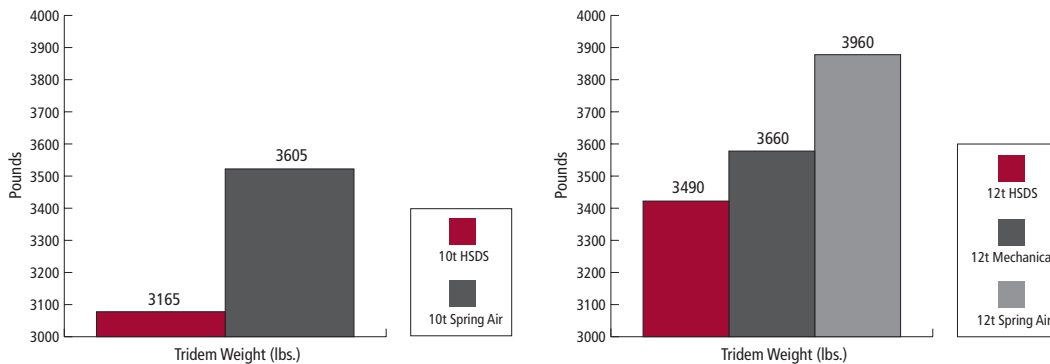
- High quality, heavy-duty, low-maintenance, easy to service wheel-end and brake system
- Progressive bushing rate and semi-active air springs provide long service life
- Easy alignment system
- Hendrickson parts and service readily available
- Comprehensive technical support and training available



Severe real world application

Less Weight = More Payload

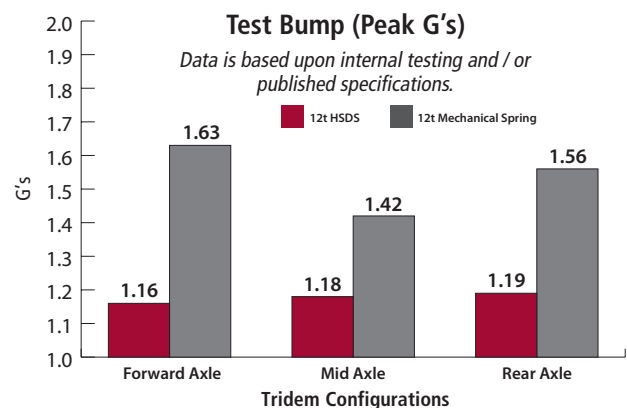
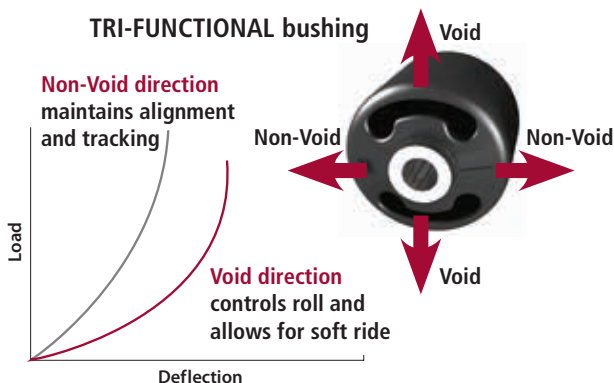
The unique features and components of the HSDS system help balance uncompromising durability with lightweight design. Hendrickson engineers use their experience to design rugged yet lightweight components that help save up to 470 lbs. per tridem installation compared to competitive mechanical or spring air suspensions. This allows trailer fleets to carry more payload in weight-critical hauling situations. In addition, numerous industry studies have linked lighter weight trailers with better fuel efficiency.



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

Superior Driver Comfort and Equipment Protection

The ingenuity behind the HSDS system is found in the unique combination of the TRI-FUNCTIONAL® bushing, air springs and shock absorbers. The trailer is supported by the TRI-FUNCTIONAL bushings and the air springs, which work together to absorb road irregularities. The air spring is a semi-active device which adjusts its spring rate to match the load it carries. It is located very close behind the axle and supports a majority of the load. The bushing also increases spring rate as it is loaded to match the load conditions while heavy duty shocks absorb additional vibrations. The result is HSDS's unique balance of empty and loaded ride quality and loaded stability which not only helps protect the driver, but also cushions the load and helps protect the chassis and cargo from excessive vibration due to potholes and other road inputs.





HSDS 10t

Duty Cycle:	On Highway
System Capacity¹:	22,000 lbs. @ 102 psi
Ride Heights²:	14" to 23"
Nominal Axle Travel³:	3.7" Bumper Contact 3.5" Rebound
Ground Clearance⁴:	13.8"
Axle Diameter:	5"
Nominal Axle Tracks⁵:	71.5" to 83.5"
Axle Spacing:	49" to 72"
Axle Configuration:	1, 2, 3 or 4 axles
Hub Piloted Hubs⁶:	10 × 11.25" and 10 × 335 mm
Brakes⁷:	16.5" × 7" HXS® Fast change brake shoes Outboard mounted drums
Frame Types:	Steel or Aluminum
Suspension Weights⁸:	1060 to 1150 lbs.



HSDS 12t

Duty Cycle:	On Highway
System Capacity¹:	26,500 lbs. @ 88 psi
Ride Heights²:	15" to 23"
Nominal Axle Travel³:	3.5" Bumper Contact 3.5" Rebound
Ground Clearance⁴:	13.8"
Axle Diameter:	5"
Nominal Axle Tracks⁵:	71.5" to 83.5"
Axle Spacing:	49" to 72"
Axle Configuration:	1, 2, 3 or 4 axles
Hub Piloted Hubs⁶:	10 × 11.25" and 10 × 335 mm
Brakes⁷:	16.5" × 7" HXS® Fast change brake shoes Outboard mounted drums
Frame Types:	Steel or Aluminum
Suspension Weights⁸:	1160 to 1250 lbs.



HSDS 13t

Duty Cycle:	Vocational
System Capacity¹:	28,700 lbs. @ 96 psi
Ride Heights²:	15" to 23"
Nominal Axle Travel³:	3.5" Bumper Contact 3.5" Rebound
Ground Clearance⁴:	13.8"
Axle Diameter:	5"
Nominal Axle Tracks⁵:	71.5" to 83.5"
Axle Spacing:	49" to 72"
Axle Configuration:	1, 2, 3 or 4 axles
Hub Piloted Hubs⁶:	10 × 11.25" and 10 × 335 mm
Brakes⁷:	16.5" × 8.625" HXS® Fast change brake shoes Outboard mounted drums
Frame Types:	Steel
Suspension Weights⁸:	1250 to 1350 lbs.

1. Maximum rated static suspension and axle load. Brake capacity will vary depending on specific application.
2. Overall ride height range. Nominal ride heights (ride height range) in inches: 15 (14-15.25), 15.75 (15-16), 17 (16-17.25), 18 (17.25-18.5), 19.25 (18.5-19.75), 21 (20-21.25), 22.5 (21.75-23). Lifiable ride heights (4.0 inch lift) in inches: 16, 17.25, 18.5, 19.75, 21.25, 23.
3. Axle travel at nominal ride heights. Axle travel will vary depending on actual ride height selected. Lifiable ride heights include 4 inch axle lift and 3.1 inch rebound.
4. Ground clearance with 19.7 inch SLR tire, cams rear and 5.5 inch slack adjuster. 12.6 inch ground clearance with 6.0 inch slack adjuster. 15.7 inch clearance possible with cams forward on 77.5 inch axle track and wider.
5. Standard axle track range. Contact Hendrickson for other available axle tracks.
6. With M22 × 1.5 wheel studs. 8 × 225mm hub piloted hubs with M22 × 1.5 wheel studs available for limited applications. Contact Hendrickson for availability.
7. Standard brake package, 7 inch or 8.625 inch wide brake packages optional on each suspension. Other drum brake and disc brake packages available. Contact Hendrickson for availability.
8. Weights for standard suspension specifications in the range of ride heights. Weight includes suspension, axle, brakes, wheel-ends, slack adjusters and brake chambers.

All Hendrickson HSDS suspension applications must comply with applicable Hendrickson specifications. Contact Hendrickson with any questions regarding specific applications.

For additional details regarding specifications, applications, capacities, operating, service and maintenance instructions, refer to applicable Hendrickson technical literature available at www.hendrickson.com or contact Hendrickson.

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

THIS PRODUCT IS COVERED BY ONE OR MORE PATENTS AND / OR PENDING PATENT APPLICATIONS IN THE U.S. AND / OR OTHER COUNTRIES. FOR MORE INFORMATION, PLEASE VISIT [HTTP://WWW.HENDRICKSON-INTL.COM/PATENTS](http://WWW.HENDRICKSON-INTL.COM/PATENTS).

Call your trailer dealer or Hendrickson at **330.489.0045** or **866.RIDEAIR (743.3247)** for additional information.



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