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**Integrated Trailer Air Suspension / Axle / Brake Systems** 



- Maximise value
- Maximise performance
- Proven reliability



## **INTRAAX® WIDE BUSH AAT250 & AAL250**

The on- or off-highway AAT250 and AAL250 is the ideal combination of proven durability and low tare weight. Satisfied operators continue to use the wide bush model in tanker, tipper, B double, road train and various other applications. The wide bush series specified for Australian conditions includes the LDA™ Large-Diameter Axle, severe-duty S-cam tube and robust shock absorber mountings to last the long distances of the Australian operations. These innovations continue to help reduce fleet operator's costs and their profitability.







# **INTRAAX® NARROW BUSH AANT230 & AANL230**

The on-highway, proven INTRAAX AANT230 and AANL230 provide the ultimate axle and suspension system for weight-conscious operators running general freight applications. These models combine tapered beams and Hendrickson Large-Diameter Axle technology to provide increased roll stability, reduced weight and improved durability. The narrow bush range is the lightweight version of the wide bush while still maintaining the smooth ride, superior performance and durability expected from INTRAAX.







# for Australia



## **A Stronger Shock Mount System**

Conditions in Australia test the best of equipment, INTRAAX® is up to the challenge with changes specifically designed for the harsh Australian conditions. Combining grade 8 top mounting bolt with torque specific lower mounting bolts with hardened washers and additional shock bolt support ensures additional strength to endure the pounding from the Australian roads.



#### **Heavy-Duty Sealed S-cam System**

The long haul dusty conditions in Australia challenge the S-cam bearing life, INTRAAX is up to the challenge with changes specifically designed for the dusty Australian conditions. The S-cam bush material and thicker outer tube are specific to Australia combined with an additional sealing rubber boot and single-lipped seal with bumper to help keep out dust. The addition of a hardened washer under the S-cam head reduces wear and helps locate the S-cam more securely.



# ZMD™ ZERO MAINTENANCE DAMPING™

#### Available as a premium option on select INTRAAX suspension models

- Eliminates conventional shock absorbers by integrating the damping function into the air springs
- As the axle moves up and down, pressurised air is exchanged between the bellows and the piston, meaning there are no moving parts or hydraulic fluid
- · Ideal for general freight applications
- Suitable for GML and CML applications

- Reduced Maintenance
- Increased Cargo Protection
  - Less Trailer Wear

To learn more visit: www.SHOCKLESS-ZMD.com.au





# Standard INTRAAX® features can deliver black to your bottom line

# Low Maintenance and Convenience — Save Time and Money

- Simple, functional design uses fewer parts — that means fewer parts to wear out
- QUIK-ALIGN® axle alignment system fast and easy axle realignment requires no welding or special tools
- TRI-FUNCTIONAL™ bushes proven technology for kilometre after kilometre of dependable service
- Single source for comprehensive technical support, training and warranty



Hendrickson stands as one of the world's largest trailer axle manufacturers



- Hendrickson LDA™ Large-Diameter Axle usage has expanded within the INTRAAX® models
  - Bending and torsional stiffness increased by as much as 14 percent for rugged durability
  - Greater roll stability
  - Reduced deflection under load
- Cambered for Australia conditions
- Spindle, axle wrap and spider mounting surfaces machined in one step after friction welding to ensure precise brake geometry and wheel positioning for enhanced brake life and efficiency
- Advanced axle wrap and window weld technology for optimal structural integrity



 Brake hardware attached to trailing arms rather than welded to axle, minimising axle stress

#### **Performance Plus**

- · Low spring rates deliver superb ride quality
- High-capacity air springs with low operating pressures allow rapid air-up
- Rigid trailing arm with solid axle connection offers stable and durable design
- TRI-FUNCTIONAL bushes optimise ride softness and control
- Shock absorbers designed with premium seals and bonded bushes for long life



# **Responsive and Consistent Stopping Power**

- Hendrickson's proprietary Cam Tube System<sup>™</sup> enhances
   S-cam alignment and helps extend brake component life
  - Seven times more grease than spherical style camshaft assemblies
- 10-inch S-cam eliminates windup and reduces bush wear
  - Up to a half-inch less stroke required
  - Provides more braking reserve without the cost of long-stroke chambers
  - Lower air consumption, critical for ABS performance
  - Faster application and release cycles
- Heat-treated components for greater durability

# **Low-Maintenance Integrated Systems from a Single Source**

- · Long-term warranty on axle / beam connection\*
- Leading structural warranty\*
- Backed by Hendrickson's outstanding technical support staff
- Quickly replace damaged axles without grinding or welding
- Wide availability of Hendrickson Genuine Parts
- \* Contact your local Hendrickson representative for complete warranty terms, conditions and limitations



## **INTRAAX®** Options: Boost Productivity and Build Trailer Value

#### **UBL™ UNDER BEAM LIFT™**

Adds operational flexibility, helps to extend tyre life, improve manoeuvrability and increase fuel economy

- Combine with INTRAAX® (low-ride or top-mount)
- Equalises with fixed INTRAAX systems
- No chains, cables or metal-on-metal parts to wear or bind



#### TIREMAAX™ PRO

#### Tyre pressure control system

from tyres when necessary.

TIREMAAX™ PRO is a revolutionary product for automatic inflation and precise maintenance of trailer tyre pressures. In addition to automatic inflation, the system responds to changes in outside temperature by relieving air



- Automatically inflates tyres using the trailer air supply
- Prevents overinflation by relieving air from the tyres back through the controller
- Patented controller designed to recognise normal pressure increase due to operation

#### TIREMAAX PRO equalises the pressure at every tyre

- By keeping pressures balanced, potential scrubbing between dual tyres can be reduced and tyre life improved
- TIREMAAX PRO constantly pressurises and equalises tyres

# TIREMAAX™ PRO / PRO-LB

Tyre pressure control system

- Automatically inflates tires using the trailer air supply
- Prevents overinflation by relieving air from the tires back through the controller
- Patented controller is designed to recognise normal pressure increase due to operation
- Constantly equalises tire pressure across all wheel positions
- TIREMAAX PRO-LB automatically adjusts tire pressures based on axle load





#### Hendrickson MAXX22T™

Optimised trailer air disc brake system

- Hendrickson proprietary MAXX22T™ brake calliper
- Lightweight rotor and torque plate deliver enhanced weight savings over standard ductile iron designs
- Bolt-on dust shield for easier installation and maintenance



# **Specialised Suspensions**

# **High Control Suspensions**

 Extends the advantages of an integrated system to single-axle and multi-articulated applications, requiring even greater road stability

### **Hendrickson Wheel-End Options**

Fully integrated solutions direct from the factory, help improve performance, reduce maintenance and reduce operating costs

#### HXL7® Hendrickson Extended-Life 5-year System™ Alloy Hub System

 Features a five-year 1.2 million km warranty\* on HP spindles



HXL7® System

## **Brake Options**

#### Extend intervals between brake service

- Foundation brake geometry designed for less S-cam windup and greater brake efficiency
- 16.5 and 15 in. sizes fit 22.5 and 19.5 in. wheel equipment
- HXS<sup>®</sup> Hendrickson Extended Service<sup>™</sup> thicker linings are standard on Australian specifications
- Optional Wide WXS (16.5 in. × 8.625 in.) brakes can help increase the distance between brake service
- Hendrickson disc brakes are also available. When used in conjunction with AAT230 the tare weight is below 400 kg

#### **Axle Rebound Limiters**

- Available in chain or strap type
- Can be mounted off the shock bracket or chassis

# **INTRAAX®** Sharpens Your Competitive Edge

Worldwide, OEMs, fleets and owner-operators put their trust in INTRAAX® for advanced trailer air suspension technology.

The first integrated trailer air suspension / axle / brake system, INTRAAX tames demanding applications with a straightforward, functional design derived from sophisticated engineering. The INTRAAX family brings a breadth of models to meet your hauling challenges — top-mount, low-ride, extreme-duty and liftable models in capacities from 10.4 to 11.3 t.

INTRAAX helps to increase payload, protect cargo, ensure driver comfort and keep equipment operating at peak efficiency. For more information on INTRAAX, contact your local trailer dealer or Hendrickson.



# **INTRAAX®** Specifications

Model	Suspension Capacity (t)	Ride Height (inches)	Ride Height (mm)	Axle Track (inches)	Axle Track (mm)	Spindle	Brakes
AAT250	11.3	12 - 19	305 - 480	73	1850	HP (Parallel)	Drum & Disc
AAL250	11.3	6.5 - 12	165 - 305	73	1850	HP (Parallel)	Drum & Disc
AANT230	10.4	12 - 19	305 - 480	73	1850	HP (Parallel)	Drum & Disc
AANL230	10.4	6.5 - 12	165 - 305	73	1850	HP (Parallel)	Drum & Disc

Other axle tracks available on request.

For details, contact your Hendrickson representative.

Not all specifications are available in every market, contact Hendrickson sales department for details.

These products are 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, operation, service and maintenance instructions.

Call Hendrickson or visit our web site for additional information.



www.hendrickson.com.au

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