# PRIMAAX® EX

**Severe-Duty Vocational Rear Air Suspension System** 

- MAAXimise durability
- MAAXimise driver comfort
- MAAXimise performance
- MAAXimise safety



With its rugged, weight efficient design, PRIMAAX® EX is a severe-duty vocational rear air suspension that delivers advanced suspension technology for the rigorous demands of vocational, severe-service, and heavy-haul applications. The system features a robust structural design with optimised suspension geometry for exceptional stability, handling and ride.

Suspension-induced driveline vibration is significantly reduced with PRIMAAX EX compared to competitive trailing-arm air suspensions, resulting in higher driver comfort and less premature wear on expensive truck and body equipment.







## **PRIMAAX®** EX Severe-Duty Vocational Rear Air Suspension System

# Three-rod configuration reduces axle stress, welding and complexity

- Optimised configuration helps improve handling and roll stiffness for extended range of applications
- Premium retained rubber bushes for increased service life and resistance to walkout
- Designed for optimum wheel-end clearance and articulation
- · Alternative rods available for disc brake use

# QUIK-ALIGN® Axle Alignment System

- Allows for easy axle alignment without shims
- Reduces maintenance time and helps extend tyre life



- D-pin axle connection decreases torsional axle stress for reduced maintenance and increased joint integrity
- Integrated axle stop contact pads reduce axle stress
- Newly designed torque rod bar-pin connection for increased reliability and reduced maintenance time

#### **Air Springs**

- Large volume, low-frequency design for improved ride
- Advanced design air springs lift and support the load with less air pressure
- Road-friendly

#### **Cast Structural Beams**

- Premium materials used to improve durability
- Maintenance-free connection with the cross beam for increased uptime
- Robust rubber bushes improve service life and eliminate lubrication requirements



 Maintains required suspension ride height

 Dual height control valves available for improved leveling (if required)

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

- Positioned and tuned for optimum damping characteristics
- · Protect air springs from over-extension
- Road friendly

#### **Cross Beams**

- Seamless fabrication technology forms a robust torsion system with cast structural beams, improving stability
- Integrated air spring mounts
- Increased ground clearance versus similar air suspensions

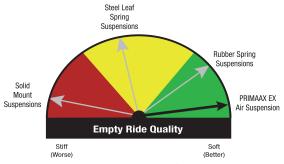
## **MAAX**imise Off-Highway Mobility

PRIMAAX EX produces up to 315 mm of diagonal wheel articulation and 170 mm of vertical axle travel for improved traction. 270 mm of ground clearance provides the ability to traverse uneven terrain on more demanding job sites.<sup>1,2</sup>



- Axle travel may be limited by vehicle manufacturer; axle stop settings may restrict suspension's articulation.
- $2. \quad \hbox{Ground clearance was measured using properly inflated 11R 22.5 tyres.}$

### **MAAX**imise Driver and Vehicle Protection



Above data is based upon internal testing and/or published specifications. Actual product specifications and performance may vary depending upon suspension and vehicle configuration, operation, service and other factors.

Drivers, cargo and vehicles are major investments that require protection. PRIMAAX® EX adjusts to variations in load and road conditions for optimal ride and performance. The high-flow height control valve maintains constant ride height in empty and loaded conditions.







## **MAAX**imise Stability and Handling

Cast structural beams form a solid connection with the square cross brace to form a rigid torsion and stabiliser system **without the need for re-torque**. This low-maintenance design delivers greater stability for improved control on and off the job site. Exhausting the air springs provides a further increase in stability during job site operation.



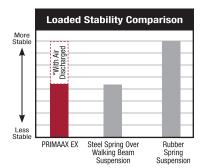
Stabiliser System

PRIMAAX EX has better handling characteristics to improve road feel. The unique torque rod configuration can contribute to more than twice the roll stability versus competitive air suspensions, along with improved handling. Roll steer is reduced to provide greater control during lane changes, highway ramp operation and tight or twisting road manoeuvers.

#### **MAAXimise Stability**

- PBS applications

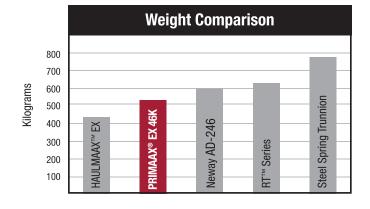




 Air exhausted from suspension system to provide additional stability when dumping or in stationary events where there is a high centre of gravity or uneven terrain.

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# **MAAX**imise Weight Savings



Lower suspension weight allows for increased cargocarrying capacity.

Weight includes the suspension system and related components. Data is based on internal testing and / or published specifications. Actual product specifications and performance may vary depending upon suspension and vehicle configuration, operation, service and other factors.

### **MAAX**imise Driver Comfort and Confidence

 Unique suspension geometry - Optimised configuration significantly controls suspension windup and corresponding frame rise while increasing roll stiffness and reducing roll steer.



QUIK-ALIGN® — Rotating the eccentric collar allows up to 25.4 mm of axle alignment per side

 Easy axle alignment - Hendrickson's proven QUIK-ALIGN® axle alignment system helps save time and money — offers a fast method to ensure proper alignment for improved tyre life.



Optimised geometry design

- D-pin axle connection and clamp group Reduces stress input to the axle housing by transferring the torsional loads to the integrated stabiliser system, which helps extend axle and joint service life.
- Large volume air springs Reduce noise, vibration and harshness to cab, chassis and body
  equipment for reduced total vehicle maintenance; new integrated pistons and spacers provide
  a more robust beam connection while lifting and supporting the load with less air pressure.
- Alternative torque rods Now available to broaden packaging compatibility with disc brakes.
- Frame hanger New, more robust design to meet a variety of gruelling vocational and severe-duty applications.



Air disc brake configuration



- Structural beam end joint Maintenance-free connection with cross tube reduces downtime for improved productivity.
- Cast structural beam Redesigned beams utilise premium materials to improve durability more than 350 percent.\*

\*Based on lab testing

## **MAAX**imise Versatility

## PRIMAAX® EX is approved for a wide array of applications

- Engineered specifically for severe-duty operation
- Rugged design for 100 percent off-highway use
- Higher gross combination weight rating
- Single, tandem and tridem axle configurations available
- Higher creep ratings
- Improved ground clearance
- PBS configurations



MAAXimise the performance of vocational and heavy-haul vehicles with a suspension engineered specifically for demanding on- and off-highway conditions. With over 100 years of robust suspension design, Hendrickson delivers another premium suspension with PRIMAAX® EX. Rugged, dependable and extensively tested in challenging applications, PRIMAAX EX paves a new road for suspension technology.



## PRIMAAX® EX Specifications

	PRIMAAX EX 232	PRIMAAX EX 262	PRIMAAX EX 462	PRIMAAX EX 522	PRIMAAX EX 692	PRIMAAX EX 782
Capacity (kg.)	10,500	11,500	21,000	23,500	31,000	35,000
Axle Configuration	Single	Single	Tandem	Tandem	Tridem	Tridem
GCM Approval <sup>1</sup>	Rear Drive Axle Manufacturer Recommendation	Rear Drive Axle Manufacturer Recommendation	Rear Drive Axle Manufacturer Recommendation	Rear Drive Axle Manufacturer Recommendation	Rear Drive Axle Manufacturer Recommendation	Rear Drive Axle Manufacturer Recommendation
Axle Travel <sup>2</sup>	170	170	170	170	170	170
Ground Clearance (mm)	270	270	270	270	270	270
Ride Heights <sup>3</sup> (mm)	200-273	200-273	200-273	200-273	200-273	200-273
Engine Torque	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit
Applications	Rigid Single Trailer B-Double Road Train Doubles & Triples High CoG & live load applications	Rigid Single Trailer B-Double Road Train Doubles & Triples High CoG & live load applications	Rigid Single Trailer B-Double Road Train Doubles & Triples High CoG & live load applications	Rigid Single Trailer B-Double Road Train Doubles & Triples High CoG & live load applications	Rigid Single Trailer B-Double Road Train Doubles & Triples High CoG & live load applications	Rigid Single Trailer B-Double Road Train Doubles & Triples High CoG & live load applications

Note: Suspension ratings in the above table to be used in conjunction with the respective axle manufacturer's recommendations.

PRIMAAX® EX is approved for vocational and heavy-haul vehicle applications including, but not limited to: truck, tractor, waste, front and rear discharge tipper, logging, crane mounted, platform, fire / rescue, specialty and vehicles equipped with outriggers. Contact Hendrickson and the respective vehicle manufacturer for approval of additional applications.

- 1. GCM approval will match Drive Axle Manufacturer rating. Application Approval Form may be required Contact Hendrickson.
- 2. Axle travel may be limited by vehicle manufacturer; axle stop settings and shock stroke may restrict suspension's articulation. Varying ride heights and configurations may restrict travel.
- 3. Contact Hendrickson for other ride height options.



**Hendrickson Genuine Parts** are 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.

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.

Visit www.hendrickson.com.au for additional information.



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