OPTIMAAX® Liftable Forward Tandem Axle and Suspension System

FREIGHTLINER®

OPTIMIZE fuel economy, weight savings and operational efficiency on the Cascadia® by Freightliner®

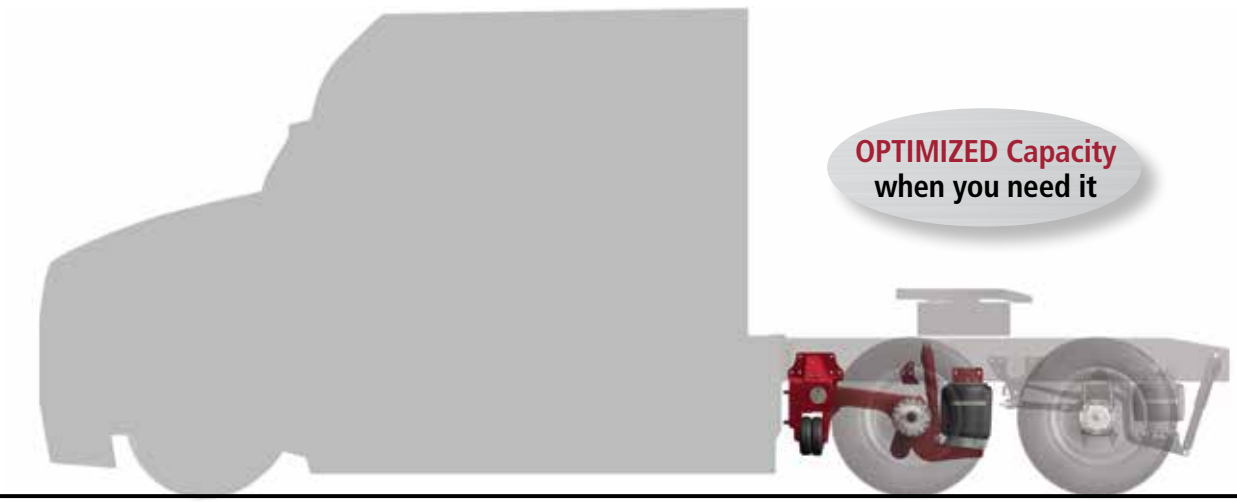
Hendrickson's OPTIMAAX® is an innovative suspension system solution that converts tractors between 6×2 and 4×2 configurations to help fleets save on fuel costs, tolls, tire wear and weight with comparable handling to 6×4 tandem axle configurations. Operating as a liftable axle in the forward tandem position, this system provides versatility for fleets with variable loads. The OPTIMAAX system is ideal for fleets in need of additional flexibility for on-highway tractor applications.

To learn more about OPTIMAAX, call 855.743.3733 or visit www.optimaax.com

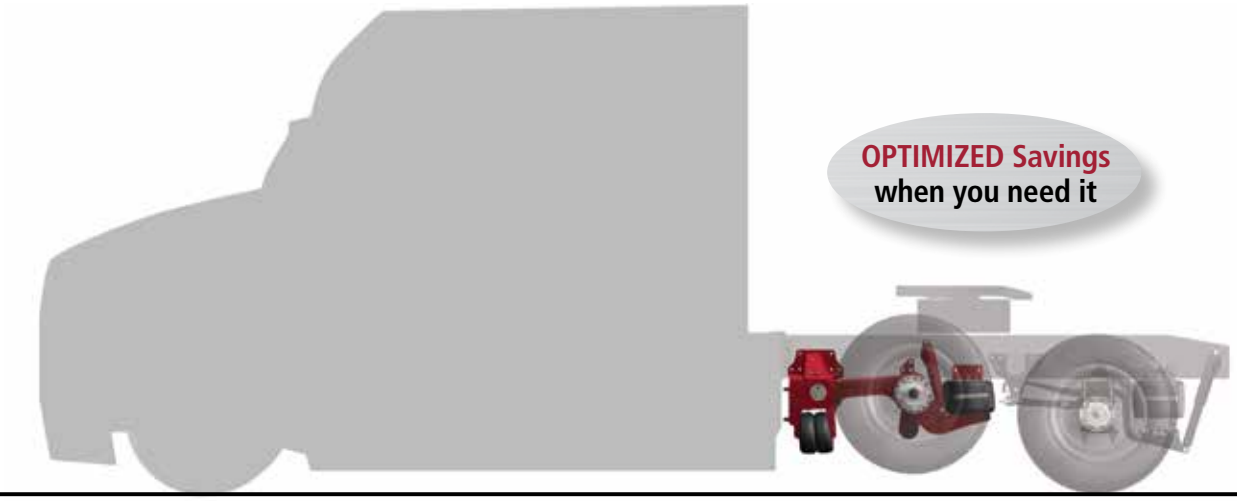
HENDRICKSON®
The World Rides On Us®

OPTIMAAX® System Features and Benefits

- **OPTIMIZE Savings**
  Axle configuration saves weight and can help improve fuel economy
  - Save up to 400 pounds versus traditional 6×4
  - Promotes fuel economy improvement through eliminating one drive axle (6×2 configuration)
  - Helps provides fuel economy improvement through lifting the non-drive axle (4×2 configuration)
  - Lifted axle saves on tire wear to help reduce tire maintenance costs
  - Potential savings on toll charges
- **OPTIMIZE Automated Controls**
  Proprietary program logic controls lift axle movement, load transfer
  - Fully automated controls eliminate driver intervention
  - Automates axle lowering and lifting by sensing load capacities
- **OPTIMIZE Traction and Handling**
  Lifted axle provides increased traction by increasing drive axle load
  - Improved traction when backing under trailers in soft soil or wet conditions versus traditional 6×2
  - Maintains vehicle handling characteristics by keeping the drive axle behind the fifth wheel



Axle lowered for 6×2 configuration — The OPTIMAAX system senses higher load conditions and lowers the non-drive axle



Axle lifted for 4×2 configuration — The OPTIMAAX system senses lighter load conditions and lifts the non-drive axle

OPTIMAAX® Features and Benefits for Cascadia®

OPTIMAAX®

- Ideal for diminishing load carriers such as bulk haulers, grocery, livestock, beverage or applications experiencing empty backhauls
- Includes integrated lift axle, suspension and automated controls

Axle

- Liftable forward tandem 20,000-pound capacity
- 9-inch drop maximizes ground clearance

Shock Absorber

- Premium Sachs shocks enhance ride quality

Reduced Weight

- Proven trailing arm design utilizing high-strength materials and advanced manufacturing methods
- Saves weight over traditional 6x4 systems

Brake Compatibility

- Compatible with both drum and disc brakes
- Offer flexibility in brake specifications

DATA CODE	DESCRIPTION
622-293	OPTIMAAX Liftable Forward Tandem

OPTIMAAX® Application and Configuration Information

APPROVED APPLICATIONS*
General freight (van or flatbed)
Grocery / Refrigerated
Livestock
Bulk
Beverage

APPROVED APPLICATION COUNTRIES/REGIONS
USA
Mexico
South America

***APPLICATION NOTES**

- Properly secure all applicable trailer cargo, especially to help minimize possible movement of any high center of gravity loads.
- Periodically check the OPTIMAAX system when the corresponding trailer is unloaded or unhitched, to verify the system properly lifts the tractor's forward tandem axle at the intended unloaded threshold setting.

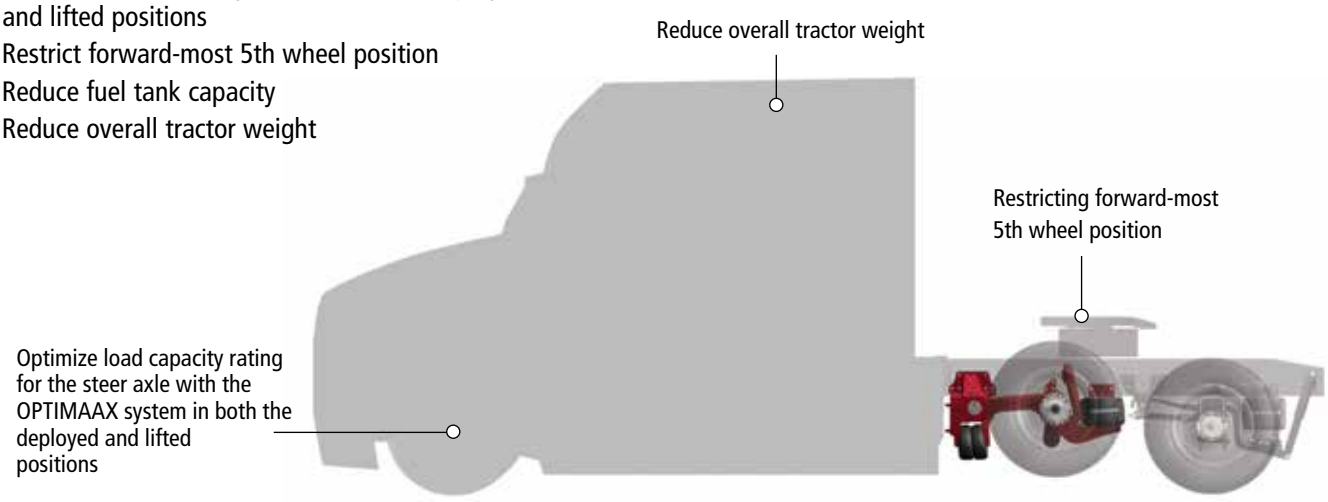
The Hendrickson OPTIMAAX® electronic control unit (ECU) is programmed to deploy / lower the liftable forward tandem axle when a fixed, pre-set drive axle load threshold is reached. The controller is pre-set at the vehicle OEM's factory for a tractor's specific configuration. The deployment is designed to prevent the steer axle from becoming overloaded.

OPTIMAAX ECUs are available with deployment thresholds ranging from 13,000 to 20,000 pounds. The deployment threshold is dependent on the tractor's specific configuration.

To maximize the benefits of the OPTIMAAX system, the tractor should be configured to allow for the highest deployment threshold of the OPTIMAAX axle.

Trucking fleets should work with their applicable vehicle dealer and OEM to consider, at minimum, the following items when configuring and ordering a new tractor to allow for the highest appropriate OPTIMAAX system deployment threshold to be set by the vehicle OEM:

- Optimize load capacity rating for the steer axle with the OPTIMAAX system in both the deployed and lifted positions
- Restrict forward-most 5th wheel position
- Reduce fuel tank capacity
- Reduce overall tractor weight



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 at **630.910.2800** or **855.RIDERED (743.3733)** for additional information.*

HENDRICKSON®
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