



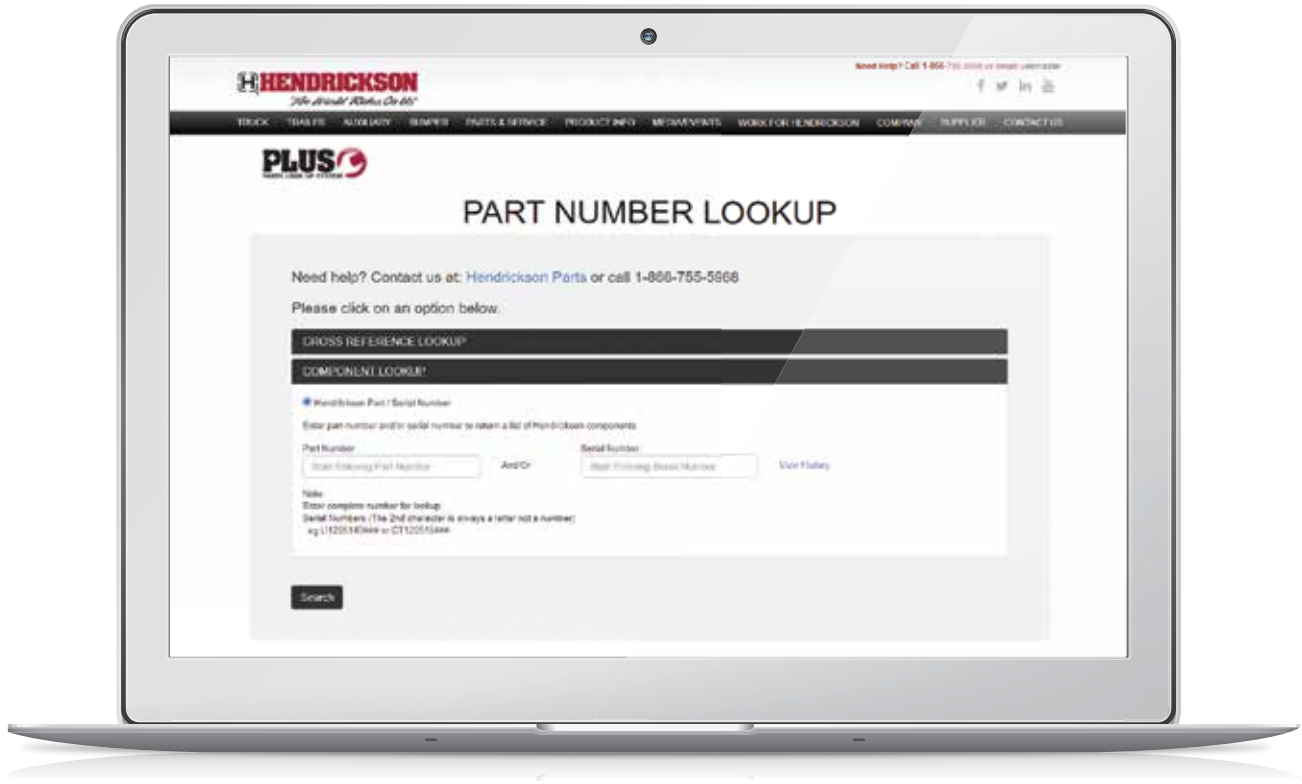
TRUCK

STEERABLE and NON-STEERABLE

Lift Axle Suspension Systems



 HENDRICKSON
Specialty Products - Auxiliary Axle Systems

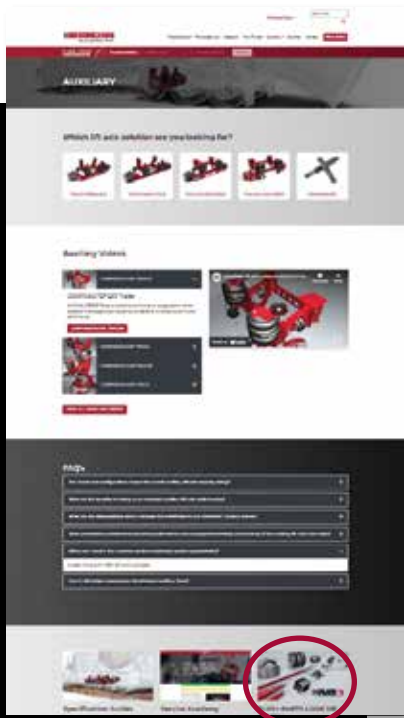


Visit us on the web and spec your Lift Axle in a few clicks!
www.hendrickson-intl.com/auxiliary

STEP 1

Configure Your Lift Axle Suspension System

Configure your Lift Axle Suspension System to your specifications with a few simple drop down menu picks.

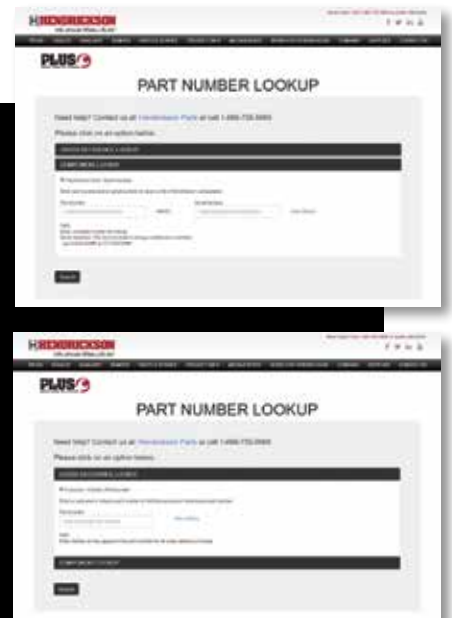


STEP 2

Get Results

- Part Number
- Part Details

Results will give you a part number and details about your Lift Axle Suspension System.



Hendrickson Specialty Products - Auxiliary Axle Systems

Platform of TRUCK Lift Axle Suspension Systems

Hendrickson is a leading tier-one OEM supplier of heavy-duty truck lift axle suspension systems for the North American commercial vehicle industry. Our commitment to quality and product innovation drives the industry leadership position, promoting the development of products that help enhance performance and durability.

Hendrickson has an extensive field sales, parts and service organization to support our customers. Our investment in new technologies will continue as we strive to deliver customers more value.

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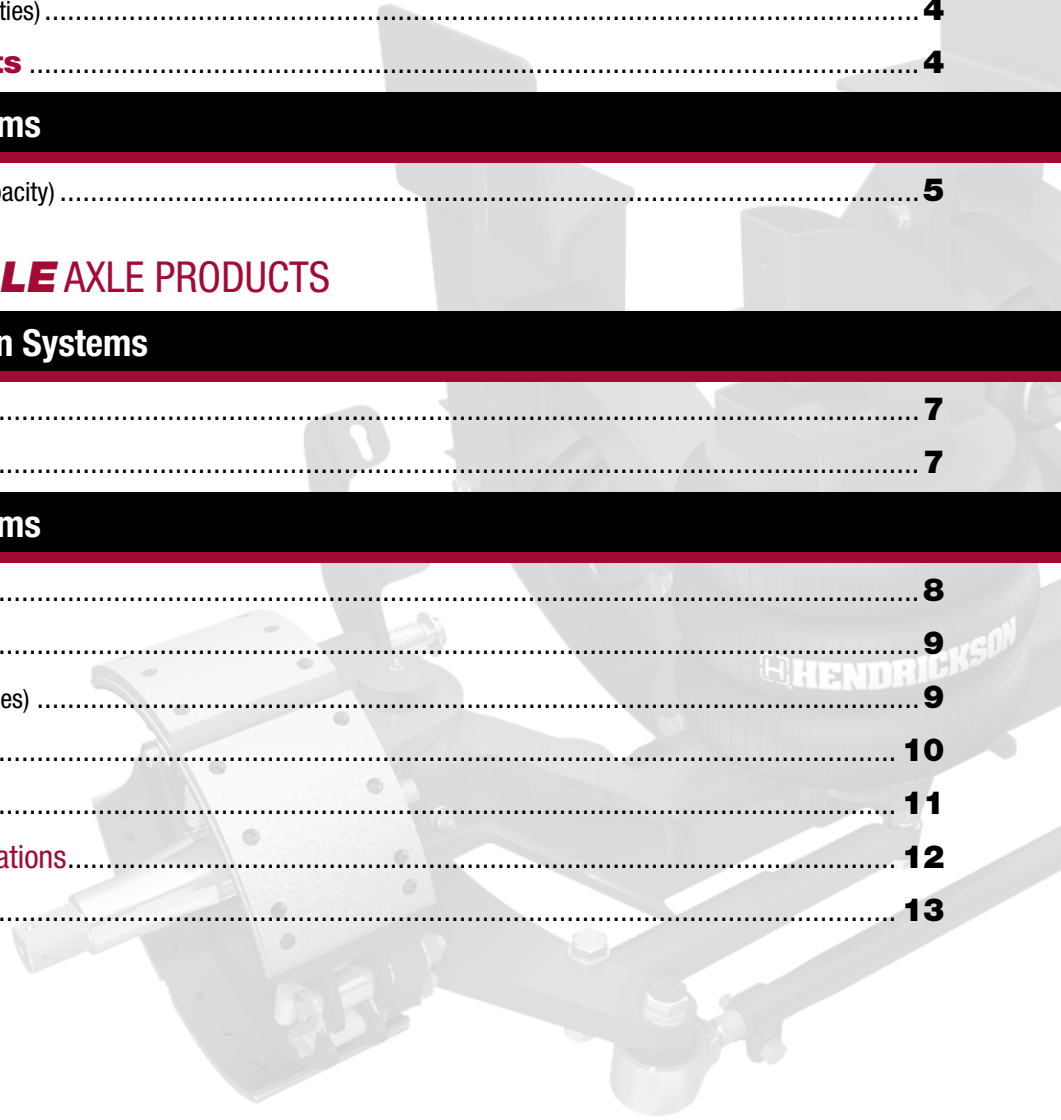
TRUCK **NON-STEERABLE** AXLE PRODUCTS

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Steerable Lift Axle Suspension Systems

Hendrickson offers the COMPOSILITE® and TOUGHLIFT® series of lift axle suspension systems designed for steerable applications. The COMPOSILITE EX series delivers the advantages haulers have come to expect with Hendrickson products, with features and benefits providing reliability, cost-effectiveness and innovation. The TOUGHLIFT LK offers a round-tube axle design and can accommodate various ride heights in a dual-tire steerable series. The EXS family offers capacities ranging from 8,000 to 20,000 pounds. The TOUGHLIFT LK offers capacities up to 25,000 pounds.

The EXS13 is rated at 13,500 pounds, with a minimized package space of 22.1 inches. Hendrickson has implemented an inset lower beam design to provide built-in lateral stiffness. A traditional tie rod comes standard. The popular Compliant Tie Rod System (CTR) is an option, specifically for lift axles in the tag or rear position on the chassis.

COMPOSILITE® Suspension Systems

EXS13

Inset Lower Beams

- Optimized lateral stiffness
- Eliminates the need for V-rod

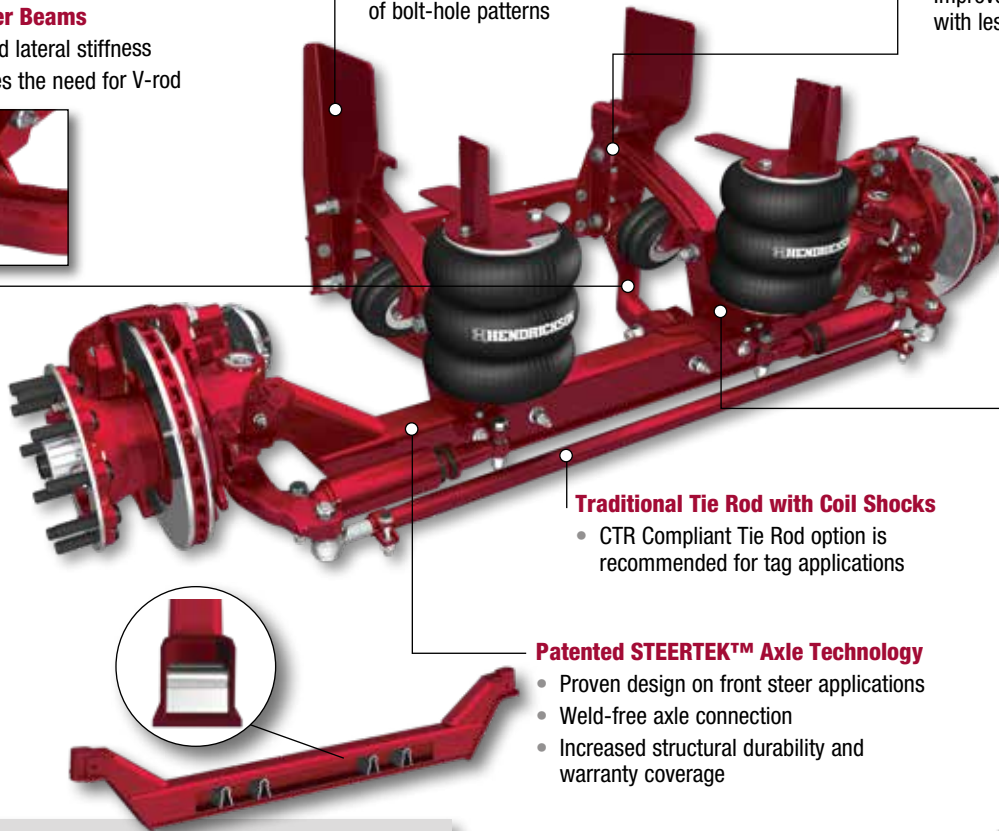


Weld-Free Hanger Design

- No welding on front side rail hangers minimizes stress risers
- Flat hanger design allows for flexibility of bolt-hole patterns

Zero-Torsion Rubber Bushings

- Provide increased durability and bushing life
- Improve overall cost of ownership with less downtime



Bolt-On Axle Seats

- Easier serviceability for ride height changes or altering tire sizes
- Less costly repairs — Change seats, not axle
- Improve overall cost of ownership with less costly repairs

Traditional Tie Rod with Coil Shocks

- CTR Compliant Tie Rod option is recommended for tag applications

Patented STEERTEK™ Axle Technology

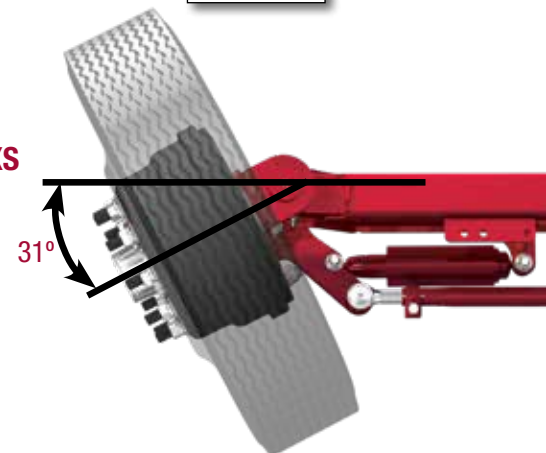
- Proven design on front steer applications
- Weld-free axle connection
- Increased structural durability and warranty coverage



EXS13 Specifications

Capacity:	Up to 13,500 pounds
Weight:	930 pounds
Travel:	13.5 inches
Lift:	8.5 +/- 1 inch
Wheel Cut:	Up to 31 degrees
Packaging Space:	29 inches

COMPOSILITE EXS Wheel Cut



EXS08/10



EXS08 Specifications

Capacity:	Up to 8,000 pounds
Weight:	831 pounds
Travel:	13.5 inches
Lift:	8 +/- 1 inch
Wheel Cut:	Up to 30 degrees
Packaging Space:	29 inches

EXS10 Specifications

Capacity:	Up to 10,000 pounds
Weight:	872 pounds
Travel:	13.5 inches
Lift:	8 +/- 1 inch
Wheel Cut:	Up to 30 degrees
Packaging Space:	29 inches

EXS08/10 Features

- Optimized package design
- 325 × 100-mm brake for:
 - **08K:** 6-hole H&D's for 17.5-inch wheel
 - **10K:** 8-hole H&D's for 19.5-inch wheel

EXS20

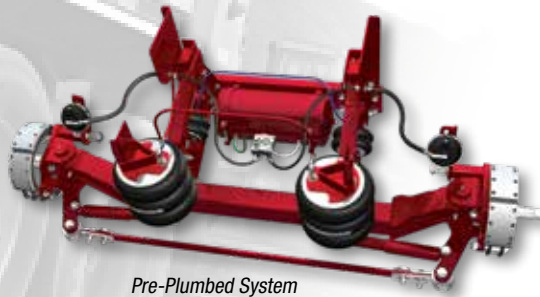


EXS20 Specifications

Capacity:	Up to 20,000 pounds
Weight:	1,470 pounds
Travel:	12 inches
Lift:	8 +/- 1 inch
Wheel Cut:	Up to 22 degrees
Packaging Space:	25 inches

EXS20 Features

- Optimized package design
- Integrated knuckle and brake system
- 16.5 × 6-inch brake for super-single or flotation tires — for use on approved rims



Pre-Plumbed System

EXS Roll-Off

The COMPOSILITE® EXS Roll-Off (RO) is available in 13,500- to 20,000-pound capacities. The EXS Roll-Off Series fits flat to the frame giving maximum clearance from cylinder beams, attachments and sliding components. Scalloped hangers aid in the clearance around roll-off cylinders.

The ride springs and parallelogram components are positioned inside the frame rails. Beams are spaced inboard one inch for additional clearance. Unique air spring plates mount to the inside of the frame rail.

EXS Roll-Off models are adjustable and allow for most variable truck frame widths and ride heights.



EXS13 Roll-Off

EXS Roll-Off Specifications

Model:	EXS08/10	EXS13	EXS20
Capacity:	Up to 10,000 lbs.	Up to 13,500 lbs.	Up to 20,000 lbs.
Weight:	841 pounds	1,070 pounds	1,393 pounds
Travel:	13.5 inches	13.5 inches	12 inches
Lift:	8 +/- 1 inch	8 +/- 1 inch	8 +/- 1 inch
Wheel Cut:	Up to 30 degrees	Up to 31 degrees	Up to 22 degrees
Packaging Space:	29.3 inches	28 inches	34 inches

EXS Roll-Off Features

- Scalloped frame hangers improve clearance around the cylinder
- Inboard-mounted ride springs provide additional clearance from the cylinder
- Air spring plate mounts inside the frame rail
- Adjustable frame width and ride height feature
- Integrated knuckle

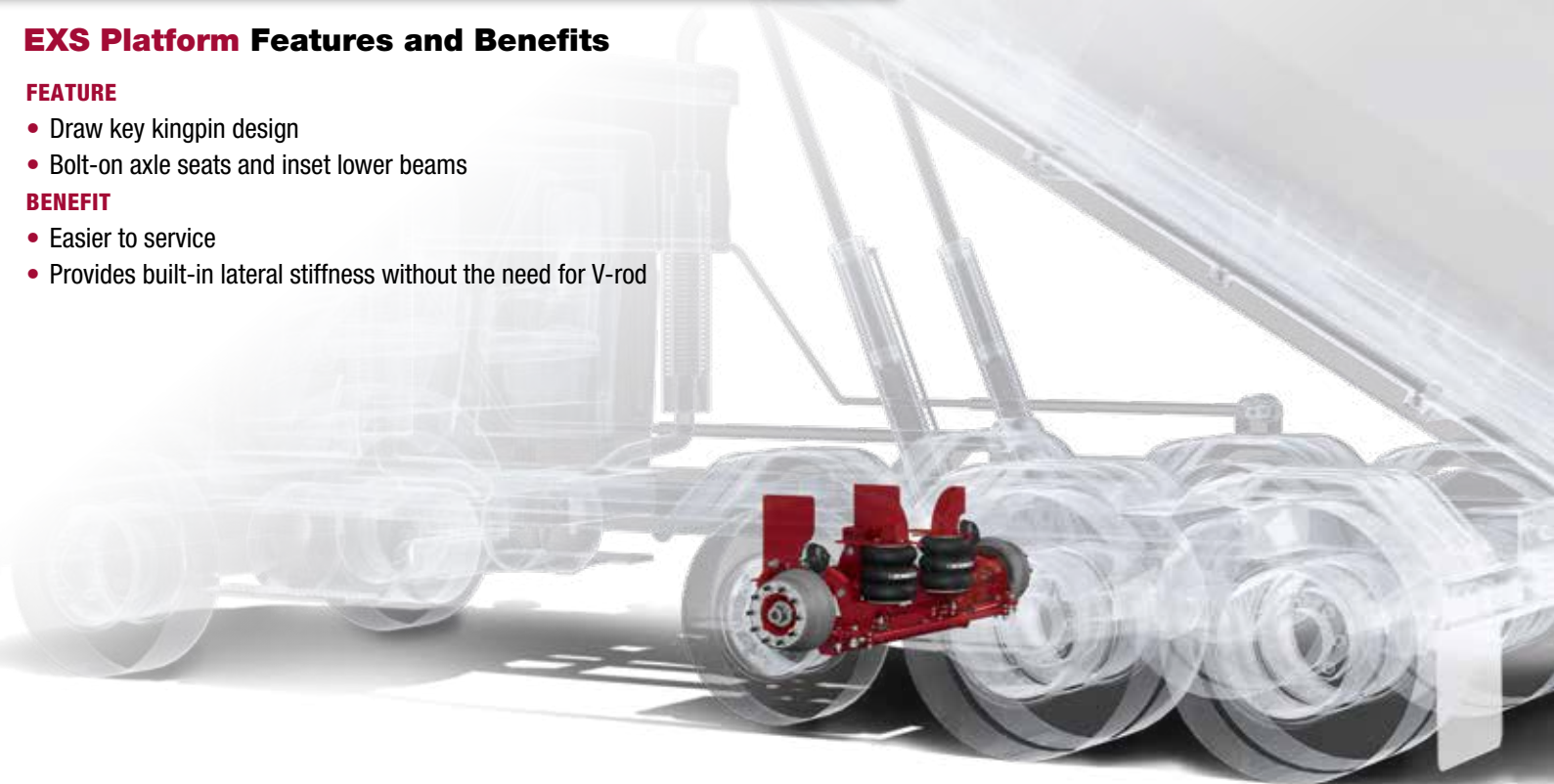
EXS Platform Features and Benefits

FEATURE

- Draw key kingpin design
- Bolt-on axle seats and inset lower beams

BENEFIT

- Easier to service
- Provides built-in lateral stiffness without the need for V-rod



LKT

Hendrickson designed the Leading Kingpin feature to provide dual-tire capability, accommodate various ride heights and facilitate installations.

The LKT suspension and axle were designed around the proven HLM rigid axle concept for rigorous environments and incorporate Hendrickson's popular QUIK-ALIGN® feature and TRI-FUNCTIONAL® bushings. The fabricated knuckle design minimizes kingpin offset for a more efficient package while incorporating a fully integrated system.

Self-Centering Steering Dampers

- Coil spring shock absorbers help ensure dual-tires return to original centering position

Lock Straight Mechanism

- Automatically locks suspension straight when vehicle is placed in reverse and axle is in the raised position

Inboard-Mounted Upper-Air Spring Plate

- Offers optimal clearance for greater wheel cut

Protected Lift Air Springs

- Lift air springs packaged within the hanger design offer protection from road debris, reducing maintenance costs

Hendrickson Integrated Brakes

- Simplifies brake installation and service while optimizing weight savings



Fabricated Knuckle Design

- Minimizes the kingpin offset for a more efficient package design

Adjustable Tie Rod

- Heavy-duty and threaded-end round-tube adjustable tie rod offers increased durability of the self-steering axle, allowing for effective and efficient toe adjustment and centering

QUIK-ALIGN®

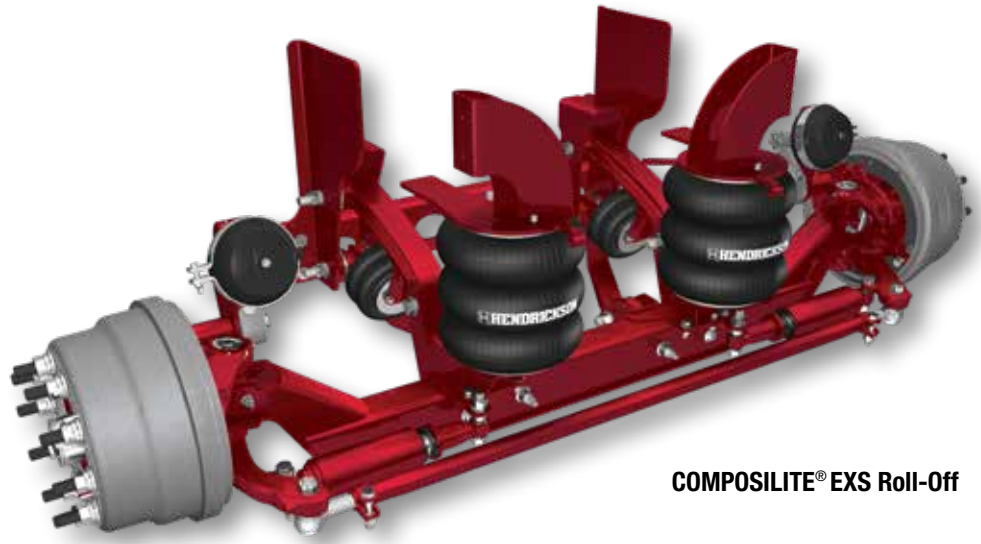
Simplifies the alignment process for quick and reliable adjustment



LKT Specifications

Capacity:	Up to 25,000 pounds
Weight:	1,495 pounds
Travel:	9.5 inches
Lift:	6.5 inches
Packaging Space:	43 inches
Wheel Cut:	20 degrees





COMPOSILITE® EXS Roll-Off



COMPOSILITE® EXF Roll-Off



TOUGHLIFT® FMO Roll-Off

Non-Steerable Lift Axle Suspension Systems

The non-steerable lift axles offer the same reliability and durability as Hendrickson's steerable product lines. Hendrickson's TOUGHLIFT® platform of lift axle suspension systems delivers a rugged round-tube axle design to accommodate both on- and off-highway applications. Both product families complement the full line of non-steerable capacities ranging from 10,000 to 25,000 pounds.

The TOUGHLIFT FMT is rated from 20,000 to 25,000 pounds and has proven its rugged effectiveness for the Class 8 market. The series is engineered to accommodate a wide range of ride heights with features like Hendrickson's TRI-FUNCTIONAL® bushing and QUIK-ALIGN®.

COMPOSILITE® Suspension Systems

EXF13

The COMPOSILITE® EXF non-steerable suspension is designed with the features and benefits of the steerable suspension system up to a 13,500-pound capacity. The lightweight fabricated axle is equipped with the EXS model's common components, such as Hendrickson integrated 15 × 4-inch brakes, zero-torsion bushings and identical air springs. A compact design improves installation for tight frame space availability, while in-line air springs minimize package space and help reduce the risk of possible driveline interference. A single-piece frame hanger was developed with a no-weld attachment to provide ultimate strength in a rigid, non-steerable axle.

EXF13 Specifications

Capacity:	Up to 13,500 pounds
Weight (with drum brakes):	918 pounds
Brakes:	15 × 4 inch
Travel:	13.5 inches
Lift:	8 +/- 1 inch
Packaging Space:	26 inches



EXF13 Roll-Off

The EXF Roll-Off (RO) fits flat to the frame, giving maximum allowance from cylinder beams, attachments and sliding components. The COMPOSILITE EXF Roll-Off is now available in capacities up to 13,500 pounds. Scalloped hangers aid in the clearance around roll-off cylinders. The ride springs and parallelogram components are positioned inside the frame rails. Beams are spaced inboard one inch for additional clearance and unique air spring plates mount to the inside of the frame rail.

EXF13 Roll-Off Specifications

Capacity:	Up to 13,500 pounds
Weight:	907 pounds
Travel:	13 inches
Lift:	8 +/- 1 inch
Packaging Space:	31 inches



Hendrickson designed the TOUGHLIFT® FRT to provide various ride heights to facilitate an easier installation. The axle is positioned at the suspension's rear, allowing greater clearance of the vehicle undercarriage. It is available in short- and medium-beam versions to accommodate a variety of frame packaging dimensions with capacities up to 18,000 pounds.

FRT13

FRT13 Specifications

Capacity:	Up to 13,000 pounds
Suspension Type:	Air up / air down high-lifting axle
Axle Type:	5-inch round connections set up for single tire
Total Axle Travel:	13 inches
Weight:	1,005 pounds with steel hubs and drums
Brakes:	16.5 × 5-inch S-cam with Type 20 Chamber
Applications:	Pusher or tag position for truck configurations
Air Controls:	Various air control options available to meet your needs



FRT16

FRT16 Specifications

Capacity:	Up to 16,000 pounds
Suspension Type:	Air up / air down high lifting axle
Axle Type:	5-inch round connection set up for single tire use
Total Axle Travel:	13 inches
Weight:	1,064 pounds with steel hubs and drums
Brakes:	16.5 × 5-inch S-cam with Type 20 Chamber
Applications:	Tag position for truck configurations
Air Controls:	Various air control options available to meet your needs



FRT18

The TOUGHLIFT FRT18 model is specifically designed for tag applications demanding superior ground clearance and load capacity. This 18,000-pound capacity axle was engineered with ease of installation in mind: slip the suspension over the rails, secure and align. Innovation sets the FRT18 apart with a single central lift bag with a pivoting base, ensuring optimal performance and operation. For added convenience, custom side rail drilling patterns are available upon request.

FRT18 Specifications

Capacity:	Up to 18,000 pounds
Weight:	1,350 pounds
Travel:	14.5 inches
Lift:	10.5 inches
Packaging Space:	43.1 inches



FMT20/25

Hendrickson's TOUGHLIFT® FMT non-steerable lift axle suspension system was developed for on- and off-highway applications, accommodating the TRI-FUNCTIONAL® bushing to help absorb brake and acceleration forces while providing superior roll control. The QUIK-ALIGN® feature simplifies the alignment process, eliminating welding of the alignment collar. TOUGHLIFT FMT applications are available in 5/8- or 3/4-inch axle wall thicknesses. Capacities up to 25,000 pounds in both pusher (6- or 9-inch drop) and tag axle configurations.

FMT Specifications

Capacity:	Up to 25,000 pounds
Weight:	1,216 pounds
Travel:	9.5 inches
Lift:	6.5 inches
Axle Type:	5-inch round
Packaging Space:	45 inches



FMO20/25

TOUGHLIFT FMO suspension system for roll-off applications is available at 25,000-pound capacity. Fitting as flat to the frame as possible provides maximum allowance from cylinder beams and a sliding component. Scalloped hangers also aid in the clearance around roll-off cylinders.

FMO Specifications

Capacity:	Up to 25,000 pounds
Weight:	1,220 pounds
Travel:	9.5 inches
Lift:	5.5 inches
Axle Type:	5 inch round
Packaging Space:	45 inches



TRI-FUNCTIONAL Bushing

Proven technology for miles of dependable service.

Hendrickson offers a variety of value-added options to help increase productivity for the end user operating a lift axle.

COMPOSILITE® EX Suspension Systems Offer:

Zero-Torsion Rubber Bushings

- Provide increased durability and bushing life
- Longer bushing life promotes less downtime

Weld-Free Hanger Design

- No welding on side rail hangers minimizes stress risers to prolong product life
- Flat hanger design allows for flexibility of bolt-hole patterns

Inset Lower Beams

- Optimized lateral stiffness
- Eliminates the need for V-rods

EX Steerable Suspension Systems Offer Additional Features:

Bolt-On Axle Seats

- Easier serviceability for ride height changes or altering tire sizes
- Less costly repairs – change seats, not axle

Traditional Tie Rod with Coil Shocks

- Compliant Tie Rod (CTR™) option also available

Patented STEERTEK™ Axle Technology

- Proven design on steerable applications
- Weld-free axle connection
- Increased structural durability

Lock Straight Ready

- Lock Straight can be provided at the time of order or can be installed at a later time without any welding required
- This feature supports a lightweight design



COMPOSILITE EXS is available in 08K, 10K, 13.5K, and 20K capacities

EX Non-Steerable Suspension Systems Offer Additional Features:

Window Weld Axle Seat Wraps

- Minimize direct axle tube welding
- Provide extreme axle connection durability

Round Axle Tube – Straight and Dropped Options

- All axles are mechanically straightened to ensure proper tire wear
- Multiple spindles offered: FF, N, P
- Track length options made easier



COMPOSILITE EXF is available in capacities up to 13.5K

Air Disc Brakes

Versatile Braking Application

Designed for applications with extremely demanding brake usage, air disc brakes provide consistent performance during extended braking application cycles such as long descending grades. Combined with the market-leading lightweight advantages of COMPOSILITE® and TOUGHLIFT® axles, Hendrickson air disc packages deliver leading technology and a competitive edge.



**COMPOSILITE® EXS
with Air Disc Brakes**

***For information on the lift
axle models available with air
disc brakes call 800-660-2829.***



**TOUGHLIFT® FMT
with Air Disc Brakes**

Strengthen Your Competitive Edge

Worldwide, OEMs, fleets and owner-operators put their trust in Hendrickson for innovative truck airlift suspension technology. For decades, the Hendrickson lift axle suspension systems have proven their ability to handle the rigors of severe truck applications. COMPOSILITE® and TOUGHLIFT® lift axle platforms bring numerous features to meet hauling challenges. Drivers can choose various ride height ranges for light- and extreme-duty applications. Single- or dual-tire accommodations are also available to optimize maximum capacity range and turning radius / wheel cut.

For more information on the COMPOSILITE or TOUGHLIFT Truck lift axle products, contact your local truck dealer or Hendrickson Auxiliary Axle Division (Specialty Products Group) at 1-800-660-2829.

STEERABLE Lift Axle Suspension System Specifications

BRAND	MODEL	MAXIMUM CAPACITY (lbs.)	APPLICATION WEIGHT (lbs.)	RIDE HEIGHTS (in.)
COMPOSILITE EX	EXS08	8,000	831	8.5 - 20.5
	EXS10	10,000	872	8.5 - 20.5
	EXS13	13,500	922	8.5 - 20.5
	EXS20	20,000	1,470	8.5 - 20.5
	EXS13 (RO)	13,500	949	8.5 - 20.5
	EXS20 (RO)	20,000	1,393	8.5 - 20.5
TOUGHLIFT	LKT25	25,000	1,495	10.0 - 13.0

NON-STEERABLE Lift Axle Suspension System Specifications

BRAND	MODEL	MAXIMUM CAPACITY (lbs.)	APPLICATION WEIGHT (lbs.)	RIDE HEIGHTS (in.)
COMPOSILITE EX	EXF13	13,500	918	8.5 - 20.5
	EXF13 (RO)	13,500	907	8.5 - 20.5
TOUGHLIFT	FRT13	13,000	1,005	9.5 - 13.5
	FRT16	16,000	1,064	9.5 - 13.5
	FRT18	18,000	1,350	9.5 - 13.5
	FMT20	20,000 - 25,000	1,216	10.0 - 13.0
	FMO20	20,000 - 25,000	1,220	10.0 - 13.0

Customer Service

Hendrickson Lift Axle Suspension Systems —

We'll put it all together for you

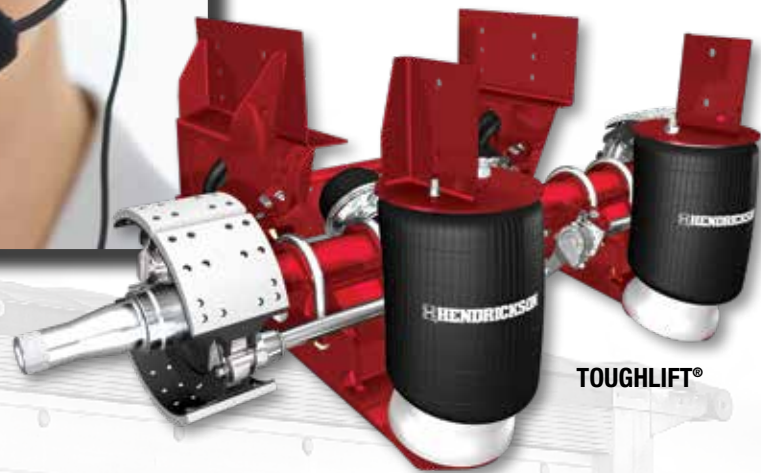


Not sure of your application requirements? Hendrickson's customer support team will help guide you through the process, getting you the right auxiliary lift axle for the job!

Hendrickson offers a wide variety of lift axles for today's market, meeting the requirements of many applications. Our technical support team is dedicated to helping you find the lift axle suspension system that best fits your needs.

Customer Service

1.800.660.2829



TOUGHLIFT®

HENDRICKSON
The World Rides On Us®



COMPOSITELITE® EXS

TRUCK

STEERABLE and NON-STEERABLE

Lift Axle Suspension Systems



Auxiliary Axle Systems
is TS-16949 Registered

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 at 800.660.2829 or 800.668.5360 in Canada for additional information.



www.hendrickson-intl.com     

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