



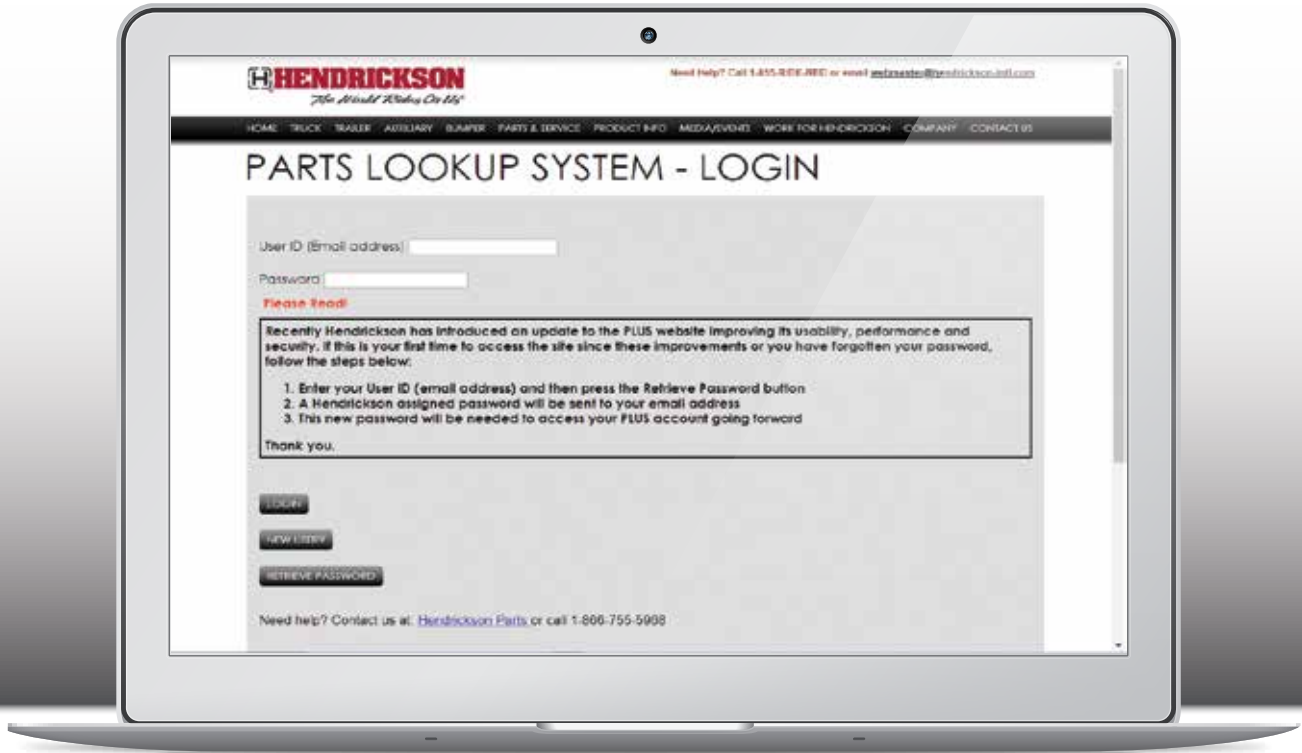
# AUXILIARY **TRUCK**

***STEERABLE*** and ***NON-STEERABLE***  
Lift Axle Suspension Systems



** HENDRICKSON**  
Specialty Products - Auxiliary Axle Systems

# LIFT AXLE PARTS PLUS LOOKUP TOOL



Visit us on the web and spec your Lift Axle in a few clicks!  
[www.hendrickson-intl.com/auxiliary](http://www.hendrickson-intl.com/auxiliary)

## STEP 1

Configure  
Your  
Lift Axle



Configure your Lift Axle 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



# Hendrickson Specialty Products - Auxiliary Axle Systems

## Platform of TRUCK Lift Axle Suspensions

Hendrickson is the leading tier one OEM supplier of heavy-duty truck lift axle suspensions for the North American commercial vehicle industry. Our commitment to quality and product innovation drives the industry leadership position, thus 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 around the globe - truck owners, dealers, fleets and OEMs. Our investment in new technologies will continue as we strive to deliver customers more value.

**INNOVATION...DRIVEN BY YOU.**

## TABLE OF CONTENTS

### TRUCK **STEERABLE** AXLE PRODUCTS

#### **COMPOSILITE® EXS** *(Replaces SC Series)*

<b>EXS</b> (08, 10, 13.5 and 20K capacities) .....	<b>2,3</b>
<b>EXSO Roll-Off</b> (13.5 and 20K capacities) (refuse market) .....	<b>4</b>
<b>SCH High-Lift</b> (13.5K capacity) (redi-mix market).....	<b>4</b>
<b>EXS Features and Benefits</b> .....	<b>6</b>

#### **TOUGHLIFT®**

<b>LKS</b> Dual Tire Steerable Axle (25K capacity) .....	<b>7</b>
--	----------

### TRUCK **NON-STEERABLE** AXLE PRODUCTS

#### **New COMPOSILITE® EXF** *(Replaces FX Series)*

<b>EXF</b> (13.5K capacity) .....	<b>8</b>
<b>EXFO Roll-Off</b> (13.5K capacity) .....	<b>8</b>

#### **TOUGHLIFT®**

<b>FRT</b> (13, 16 and 18K capacities) .....	<b>9</b>
<b>FMT</b> (20 and 25K capacities).....	<b>10</b>
<b>FMO Roll-Off</b> (20 and 25K capacities).....	<b>10</b>

<b>Steerable and Non-steerable Specifications</b> .....	<b>10</b>
---	-----------

<b>Value-Added Features / Options</b> .....	<b>11</b>
---	-----------

<b>Air Control Systems</b> .....	<b>11</b>
----------------------------------	-----------

<b>Air Disc Brakes</b> .....	<b>11</b>
------------------------------	-----------

# Steerable Lift Axles

Hendrickson offers COMPOSILITE® and TOUGHLIFT® families of lift axles for steerable applications. The new COMPOSILITE EX series of lift axles delivers the advantages haulers have come to expect with Hendrickson products with new and exciting features and benefits providing reliability, cost-effectiveness and innovation. The TOUGHLIFT LK offers a round tube axle design and the ability to accommodate various ride heights in a dual tire steerable series. Both steer families offer a full range of capacities from 8,000 to 25,000 pounds.

The EXS 13K, our new, most popular capacity offering, is rated at 13,500 pounds 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 - however, the popular CTR Compliant Tie Rod system is still available as an option, especially for lift axles in the tag or rear position on the chassis.

## COMPOSILITE®

### EXS 13.5K

#### Inset Lower Beams

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

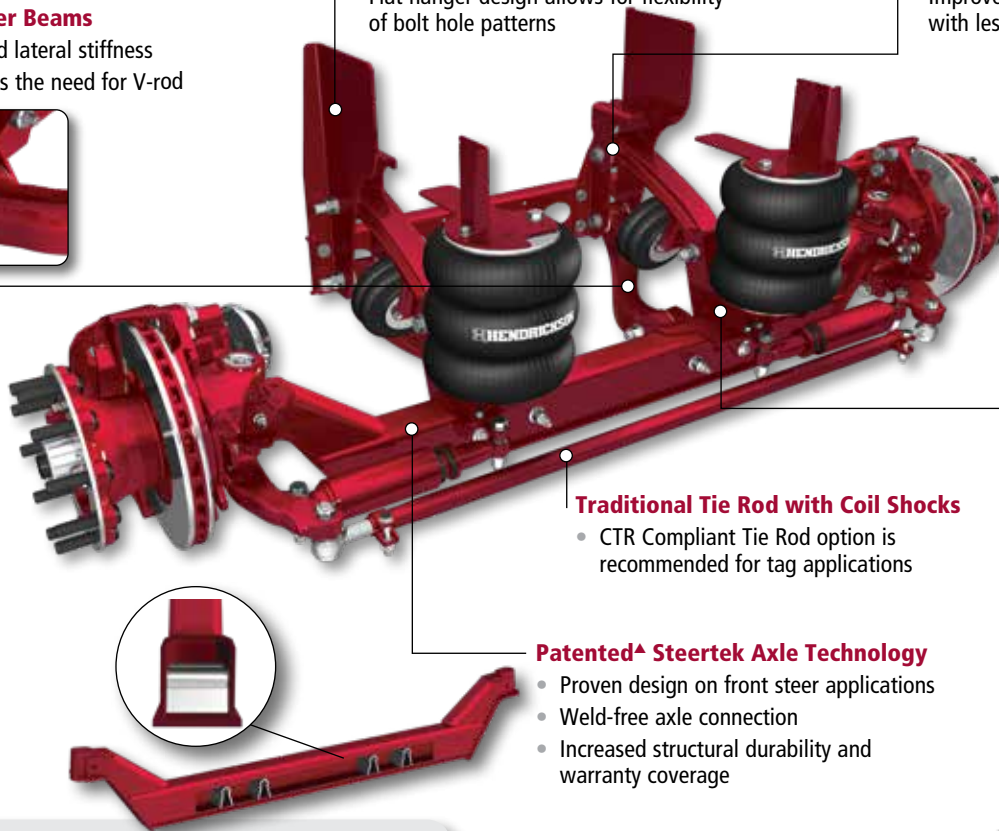


#### Weld-Free Hanger Design

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

#### Zero-Torsion Rubber Bushings

- Provides increased durability and bushing life
- Improves overall cost of ownership with less downtime



#### Traditional Tie Rod with Coil Shocks

- CTR Compliant Tie Rod option is recommended for tag applications

#### Bolt-On Axle Seats

- Easier serviceability for ride height changes or altering tire sizes
- Less costly repairs — change seats, not axle
- Lower cost of ownership

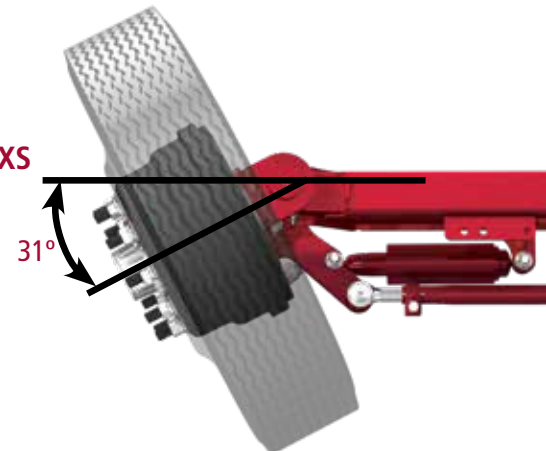
#### Patented<sup>▲</sup> Steertek Axle Technology

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

### EXS 13.5K Specifications

Capacity:	Up to 13,500 pounds
Weight:	913 pounds
Travel:	13 inches
Lift:	10 inches
Wheel Cut:	31 degrees
Packaging Space:	22.1 inches

### COMPOSILITE EXS Steerable Turning Angle



<sup>▲</sup> This product is 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.

# COMPOSILITE®

## EXS 08/10K



### EXS 08/10K Specifications

Capacity:	Up to 10,000 pounds
Weight:	805 pounds
Travel:	13 inches
Lift:	10 inches
Wheel Cut:	31 degrees
Packaging Space:	22.1 inches

### EXS 08/10K Features

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

## EXS 20K



### EXS 20K Specifications

Capacity:	Up to 20,000 pounds
Weight:	1,357 pounds
Travel:	12 inches
Lift:	9 inches
Wheel Cut:	25 degrees
Packaging Space:	26.5 inches

### EXS 20K 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



# COMPOSILITE®

## EXSO — Roll-Off

Hendrickson introduces the COMPOSILITE® EXSO for roll-off applications. The roll-off COMPOSILITE family has grown and is available in 13,500 to 20,000 pound capacities. The EXSO Series fits flat to the frame to give 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 of 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.

All EXSO models are adjustable (with the exception of the 13K capacity) and allow for most variable truck frame widths and ride heights.



**EXSO13K**

### EXSO Roll-Off Specifications

Model:	EXSO08/10	EXSO13K	EXSO20K
Capacity:	Up to 10,000 lbs.	Up to 13,500 lbs.	Up to 20,000 lbs.
Weight:	841 pounds	949 pounds	1,393 pounds
Travel:	13 inches	13 inches	12 inches
Lift:	10 inches	10 inches	9 inches
Wheel Cut:	31 degrees	31 degrees	25 degrees
Packaging Space:	22.1 inches	22.1 inches	26.5 inches

### EXSO 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

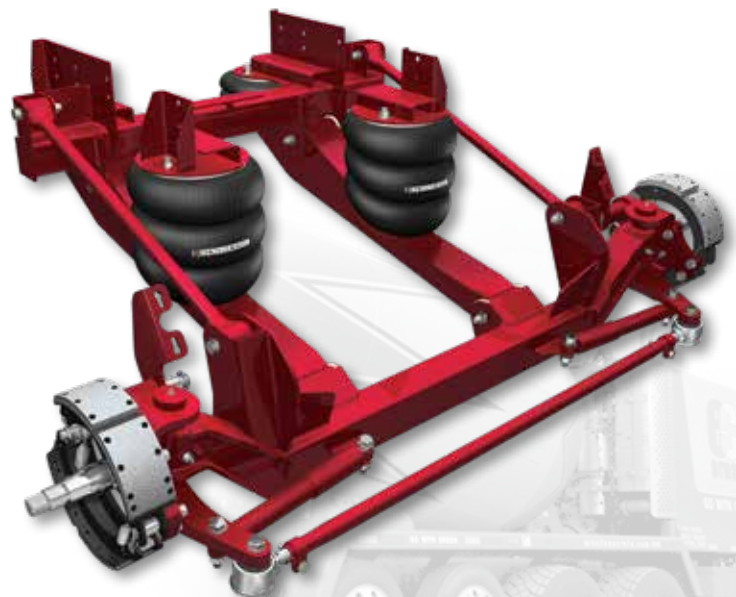
## SCH — High-Lift

The COMPOSILITE® SCH High-Lift is designed for off-highway applications requiring increased ground clearance in the mixer market. The SCH was designed for maximum lift of up to 20 inches, almost double that of the standard Hendrickson lift axle, when positioned as a tag axle off the back of the frame.

### SCH Specifications

Capacity:	Up to 13,500 pounds
Weight:	1,133 pounds
Travel/Lift:	18.5 / 24 inches*
Travel/Lift:	14.5 / 20 inches*
Wheel Cut:	27 degrees
Packaging Space:	28.4 inches

\* Travel and Lift capabilities for the High-lift model can be frame restricted.



# COMPOSITITE® EX Features and Benefits

## FEATURE

- **Adjustable Frame Width**
  - Zero spacers = 33.5-inch frame width
  - One spacer per side = 34.0-inch frame width
  - Two spacers per side = 34.5-inch frame width
  - Design allows for adjustment with no disassembly
- **Adjustable Ride Height**
  - Suspension travel combined with adjustable spacers allows for a ride height range of four inches
  - Spacer tubing slotted to fit properly into place

## BENEFIT

- Allows stocking of one part number for multiple applications and easier installation

## FEATURE

- EXS 08, 10, 13 and EXSO13 offer a 31-degree wheel cut
- EXS 20 and EXSO20 offers a 25-degree wheel cut

## BENEFIT

- Helps prevent tire scrub

## FEATURE

- EXS 08, 10, 13 and EXSO13 truck mounts provide a 22.1-inch package space from spindle center line to front face of hanger
- Hanger design—Suspensions fit flat to the frame to allow for maximum clearance

## BENEFIT

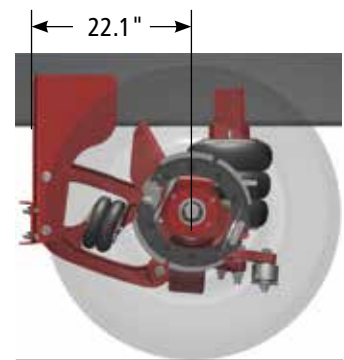
- Allows for easier installation

## FEATURE

- Draw key kingpin design
- The new EX incorporates “bolt-on” axle seats and inset lower beams

## BENEFIT

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



Adjustable frame width and ride height

Adjustable ride height spacers

Package space

**Shipping OnDemand**  
Quick-Ship Lift Axles

Now Including **EXS** Lift Axles

**7** Lift Axle Choices | **72** Hour Shipping | **1** Reliable Brand

**HENDRICKSON**  
Specialty Products - Auxiliary Axle Systems

Weight (lb)	Frame Width (in)	Application
10,000	33.5	Commercial
10,000	34.0	Commercial
10,000	34.5	Commercial
10,000	34.5	Commercial
10,000	34.5	Commercial
10,000	34.5	Commercial
10,000	34.5	Commercial
10,000	34.5	Commercial
10,000	34.5	Commercial
10,000	34.5	Commercial



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

The new LKS suspension and axle were designed around the proven HLM rigid axle concept for rigorous environments and incorporates 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 designed by Hendrickson.

#### Self-Centering Steering Dampers

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

#### Lockstraight Mechanism

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

#### Inboard Mounted Upper Air Spring Plate

- Inboard mounted upper air spring plates offer 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

- Hendrickson integrated brakes simplify brake installation and service while optimizing weight savings



#### Fabricated Knuckle Design

- Hendrickson's fabricated knuckle technology with integrated brakes 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



### LKS Specifications

Capacity:	Up to 25,000 pounds
Weight:	1,580 pounds
Travel:	9.5 inches
Lift:	6.5 inches
Packaging Space:	26 inches
Wheel Cut:	20 degrees



#### Steerable Turning Angle





# Non-Steerable Lift Axles

The non-steerable lift axles by Hendrickson offer the same rugged reliability and durability of Hendrickson steerable product lines. The new COMPOSILITE® EX series was built around a compact design with common components to the EX steerable line of lift axles for consistent features and use on the same vehicle. Hendrickson's TOUGHLIFT® platform of lift axles delivers a rugged round tube axle design to accommodate both on- and off-highway applications. Both product families compliment the full line of non-steerable capacities ranging from 10,000 to 25,000 pounds.

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

## COMPOSILITE®

### EXF 13K

Hendrickson designed the COMPOSILITE® EXF fixed suspension with features and benefits of the steerable EXS suspension system up to 13,500-pound capacity. The lightweight fabricated axle is equipped with common components of the EXS model 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. The single piece frame hanger was designed with a no weld attachment to provide ultimate strength in a rigid fixed axle.

#### EXF Specifications

Model:	<b>EXF 13K</b>
Capacity:	Up to 13,500 pounds
Weight (with drum brakes):	894 pounds
Brakes:	15 × 4-inch
Travel:	13 inches
Lift:	10 inches
Packaging Space:	22.1 inches



### EXFO - Roll-Off

Hendrickson introduces the COMPOSILITE® EXFO for roll-off applications. The popular COMPOSILITE roll-off family has grown and is now available up to a 13,500 pound capacity. The EXFO fits flat to the frame to give 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 of 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.

#### EXFO Specifications

Capacity:	Up to 13,500 pounds
Weight:	907 pounds
Travel:	13 inches
Lift:	10 inches
Packaging Space:	23.5 inches



# TOUGHLIFT®

Hendrickson designed the TOUGHLIFT® FRT around the popular HLR model that accommodates various ride heights built to facilitate an easier installation. The axle is positioned at the rear of the suspension, allowing greater clearance of the vehicle undercarriage. Available in short- and medium-beam versions to accommodate a variety of frame packaging dimensions with capacities up to 18,000 pounds.

## FRT 13K

### FRT 13K Specifications

Capacity:	Up to 13,500 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



## FRT 16K

### FRT 16K 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



## FRT 18K

Hendrickson's TOUGHLIFT FRT is engineered for tag applications that require high ground clearance and high load capacity. Ease of installation was at the heart of the design of this 18,000 pound capacity axle; just slip the suspension over the rails, secure and align. Custom side rail drilling patterns available upon request to further aid installation. The FRT18 is set apart from other Hendrickson lift axles by a single central lift bag that has a pivoting base to maintain optimum lift bag operation.

### FRT 18K Specifications

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





# TOUGHLIFT®

## FMT 20/25K (previously HLM model)

Hendrickson's TOUGHLIFT® FMT non-steerable lift axle is engineered for rugged on- and off-highway applications accommodating the TRI-FUNCTIONAL® Bushing that helps 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:	1,125 pounds
Travel:	9.5 inches
Lift:	6.5 inches
Axle Type:	5-inch round
Packaging Space:	26 inches



## FMO 20/25K

Hendrickson introduces the new TOUGHLIFT® FMO for roll-off applications. This roll-off model is available at 25,000 pound capacity. Fitting as flat to the frame as possible — it provides maximum clearance from cylinder beams and other sliding components. 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:	6.5 inches
Axle Type:	5-inch round
Packaging Space:	26 inches



### TRI-FUNCTIONAL® Bushing

Proven technology for miles of dependable service.

# Specifications

## STEERABLE Lift Axle Specifications

BRAND	MODEL	MAXIMUM CAPACITY (lbs.)	APPLICATION WEIGHT (lbs.)	RIDE HEIGHTS (inches)
COMPOSILITE® EX	EXS08	8,000	805	12.5 - 20.5
	EXS10	10,000	805	12.5 - 20.5
	EXS13.5	13,500	913	8.5 - 18.5
	EXS20	20,000	1,357	9.5 - 13.5
	EXS013	13,500	926	8.5 - 18.5
	EXS020	20,000	1,393	9.5 - 13.5
	SCH10	10,000	1,133	10.5 - 20.5
TOUGHLIFT®	LKS25	25,000	1,580	10.0 - 13.0

## NON-STEERABLE Lift Axle Specifications

BRAND	MODEL	MAXIMUM CAPACITY (lbs.)	APPLICATION WEIGHT (lbs.)	RIDE HEIGHTS (inches)
COMPOSILITE EX	EXF 13.5	13,500	894	8.5 - 18.5
	EXFO 13.5	13,500	907	8.5 - 18.5
TOUGHLIFT	FRT13	13,500	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	1,125	10.0 - 13.0
	FMO20	20,000 - 25,000	1,220	10.0 - 13.0

## Value-Added Features / Options

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



### Lock Straight

- Locks suspension straight when vehicle is placed in reverse or raised
- Bolt-on kit can be added in the field at any time



### Traditional Tie Rod with Coil Shocks

- CTR Compliant Tie Rod option is recommended for tag applications



### Air Disc Brakes

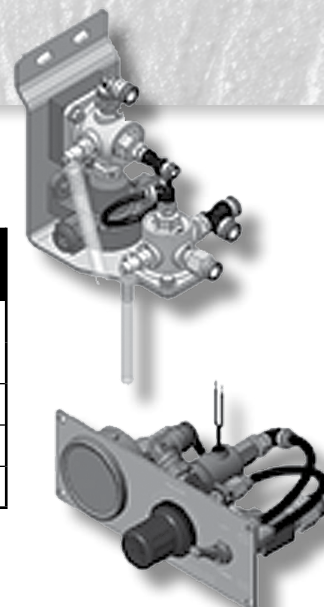
- For applications with extremely demanding brake usage - provides consistent performance during extended braking application cycles such as long descending grades
- Standard drum brakes for any 8, 10, 13.5 or 20k lift axle models is always available



## Air Control Systems — Lift Axles

**AVAILABLE MODELS**

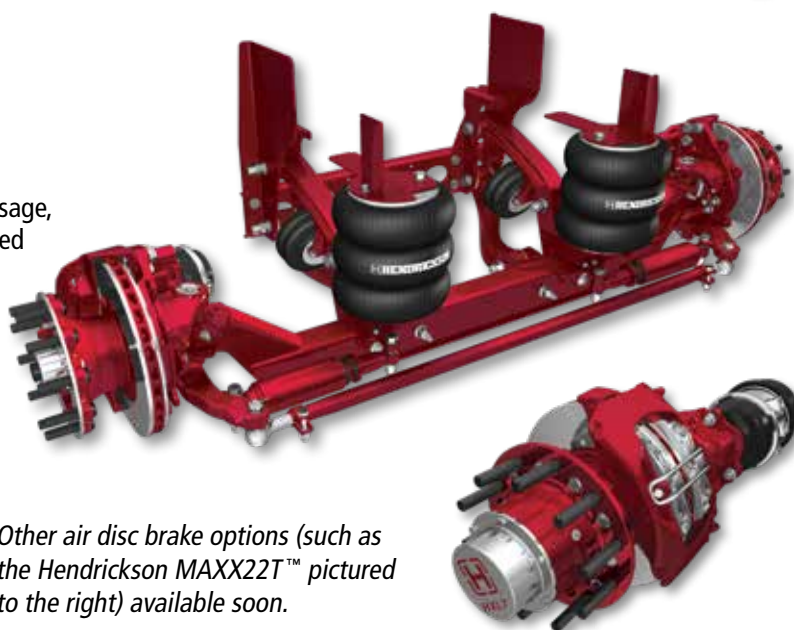
LIFT AXLE APPLICATION	AVAILABLE MODELS		
	INSIDE-MOUNTED	OUTSIDE-MOUNTED (COMPOSITE)	OUTSIDE-MOUNTED (STAINLESS)
Non-Steerable	LC-NSI	LC-UCO	LC-USO
Steerable	LC-SSI		
Reverse Lift and Lock	LC-LSI	LC-LCO	LC-LSO
Reverse Down and Lock	LC-RSI	LC-RCO	LC-RSO
Reverse Caster	LC-ASI	LC-ACO	LC-ASO



## 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 the competitive edge fleets expect from Hendrickson.



*To learn more about Air Disc Brakes, call (800) 660-2829 for the Lift Axle Models Available with Air Disc Brakes*

*Other air disc brake options (such as the Hendrickson MAXX22T™ pictured to the right) available soon.*

## COMPOSILITE® and TOUGHLIFT®

### Strengthen your competitive edge

Worldwide, OEMs, Fleets and Owner Operators put their trust in Hendrickson for innovative truck air lift suspension technology. For many years, the Hendrickson lift axle suspensions' increasing popularity has proven the ability to handle the rigors of severe truck applications. COMPOSILITE and TOUGHLIFT lift axle platforms bring a wide breadth of features to meet your hauling challenges. You have the choice of various ride height ranges for light- or extreme-duty applications, as well as single or dual tire accommodation for maximum capacity range and turning radius or wheel cut.

In demanding truck lift axle applications, Hendrickson helps to increase your payload, protect your cargo and keep your equipment operating at peak efficiency.

**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.**





# Hendrickson Lift Axles — We'll put it all together for you



Customer Service  
**1.800.660.2829**

Puzzled? 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!

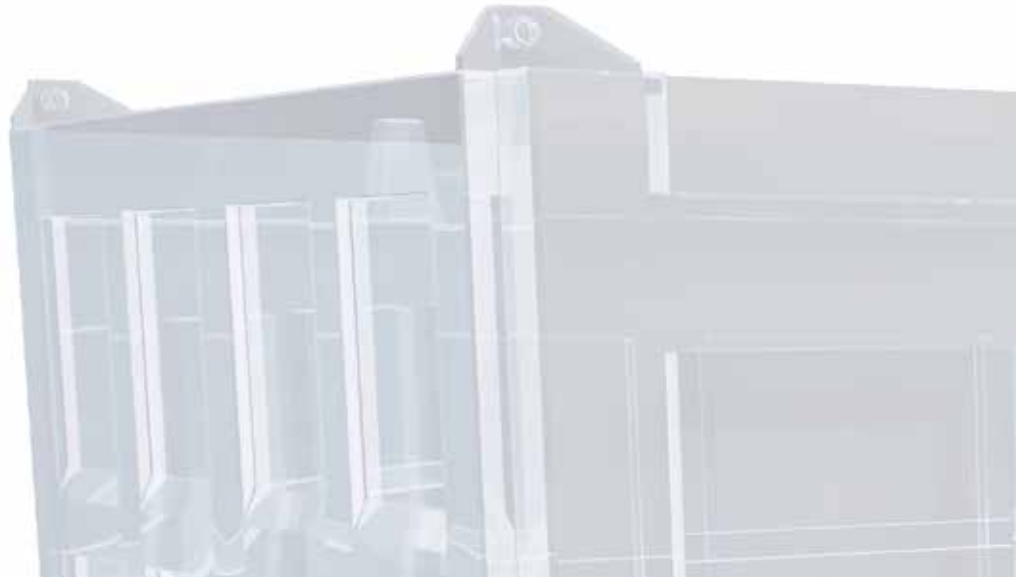
Hendrickson offers a wide variety of lift axles, meeting  
the requirements of demanding applications. Our technical  
support team is dedicated to helping you find the right lift  
axle to fit your needs.



**H HENDRICKSON**  
*The World Rides On Us®*



# AUXILIARY TRUCK



Auxiliary Axle Systems  
is TS-16949 Registered

*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 **800.660.2829** or **800.668.5360** in Canada for additional information.



[www.hendrickson-intl.com](http://www.hendrickson-intl.com)

H769 Rev F 02-20

© 2015 - 2020 Hendrickson USA, L.L.C. All Rights Reserved. All trademarks shown are owned by Hendrickson USA, L.L.C., or one of its affiliates, in one or more countries, except for MAXX22T, which is owned by WABCO. Information contained in this literature was accurate at the time of publication. Product changes may have been made after the copyright date that are not reflected.

**SPECIALTY PRODUCTS -  
AUXILIARY AXLE SYSTEMS**  
277 North High Street  
Hebron, OH 43025 USA  
800.660.2829  
740.929.5600 • Fax 740.929.5601

**Hendrickson Canada**  
250 Chrysler Drive, Unit #3  
Brampton, ON Canada L6S 6B6  
800.668.5360  
905.789.1030 • Fax 905.789.1033