

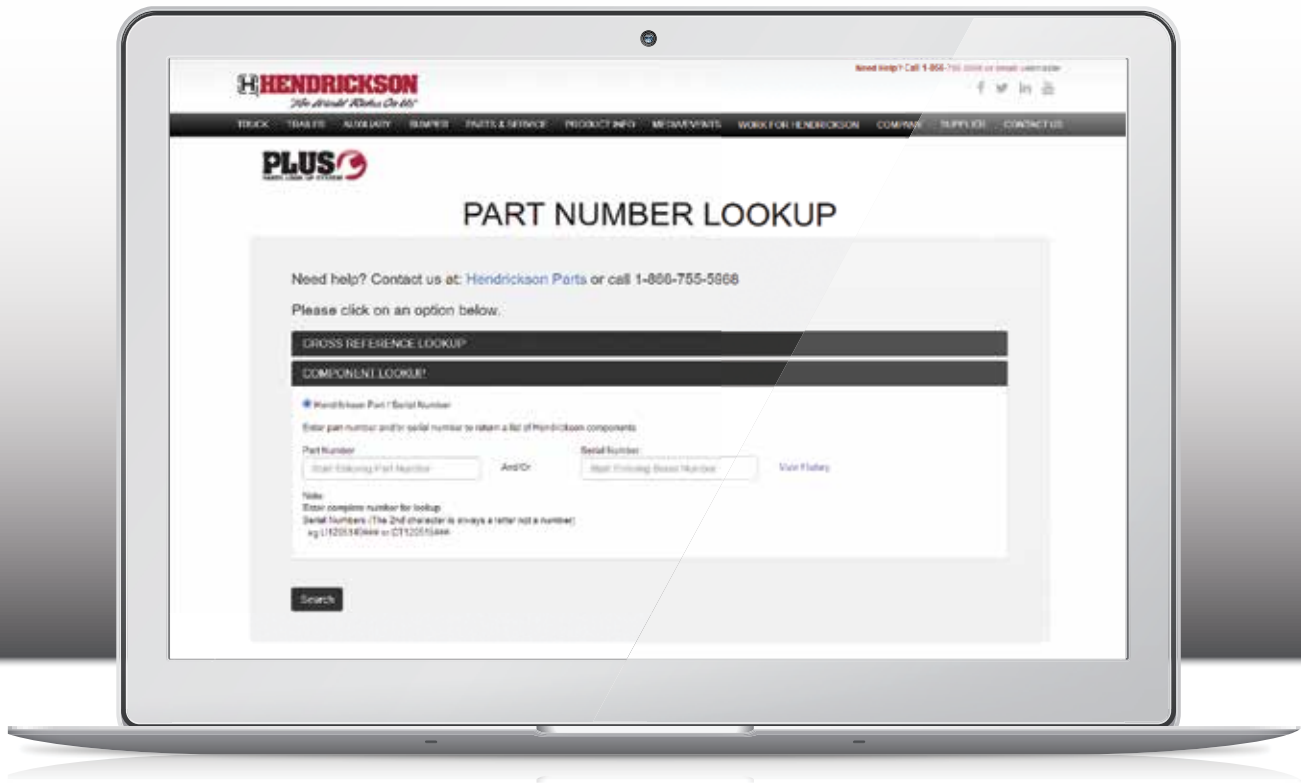


AUXILIARY **TRUCK**

STEERABLE and NON-STEERABLE
Lift Axle Suspension Systems



HENDRICKSON
Specialty Products - Auxiliary Axle Systems

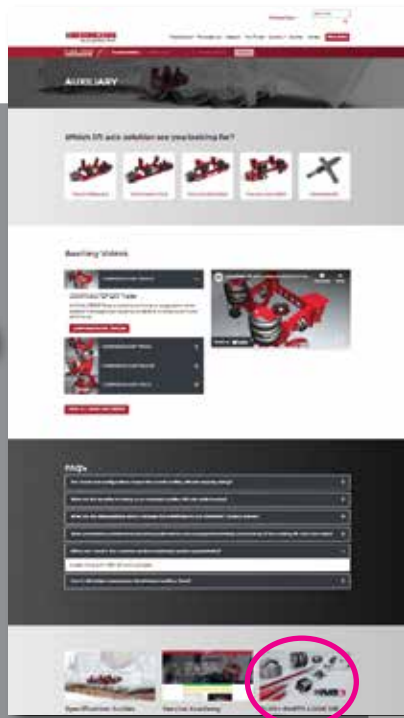


Visit us on the web and spec your Lift Axle in a few clicks!
www.hendrickson-intl.com/auxiliary

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.

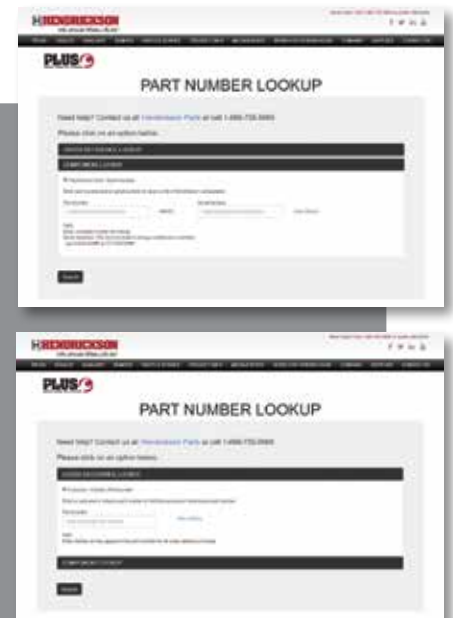


STEP 2

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. Both steer families offer a full range of capacities from 8,000 to 25,000 pounds.

The EXS 13K 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

EXS 13K

Inset Lower Beams

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

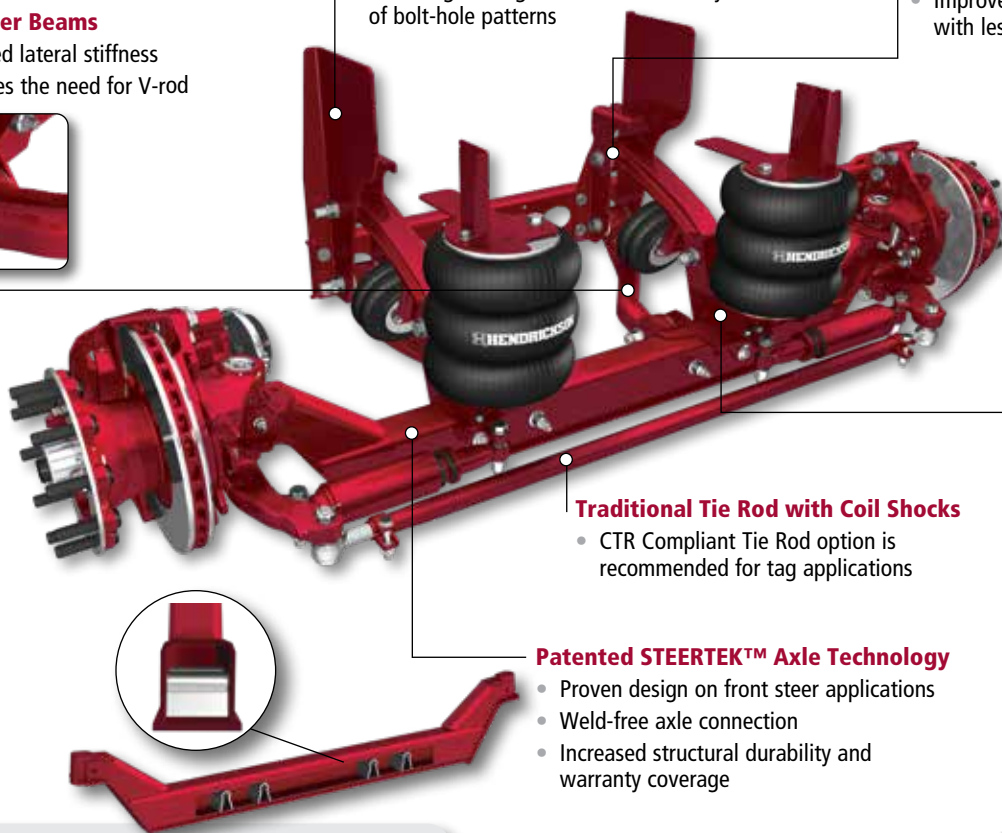


Weld-Free Hanger Design

- 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



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

Bolt-On Axle Seats

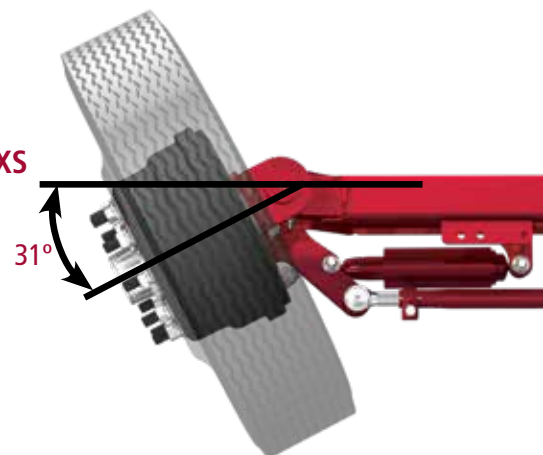
- Easier serviceability for ride height changes or altering tire sizes
- Less costly repairs — change seats, not axle
- Lower cost of ownership



EXS 13K Specifications

Capacity:	Up to 13,500 pounds
Weight:	922 pounds
Travel:	13 inches
Lift:	10 inches
Wheel Cut:	31 degrees
Packaging Space:	22.1 inches

COMPOSILITE EXS Wheel Cut



COMPOSILITE® Suspension Systems

EXS 08/10K



EXS 08K Specifications

Capacity:	Up to 8,000 pounds
Weight:	831 pounds
Travel:	13 inches
Lift:	10 inches
Wheel Cut:	31 degrees
Packaging Space:	22.1 inches

EXS 10K Specifications

Capacity:	Up to 10,000 pounds
Weight:	872 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 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:	1,470 pounds
Travel:	12 inches
Lift:	8 inches
Wheel Cut:	22 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® Suspension Systems

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, except for the 13K capacity, and allow for most variable truck frame widths and ride heights.



EXS 13K Roll-Off

EXS Roll-Off Specifications

Model:	EXS 08/10K	EXS 13K	EXS 20K
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	17 degrees
Packaging Space:	22.1 inches	22.1 inches	26.5 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



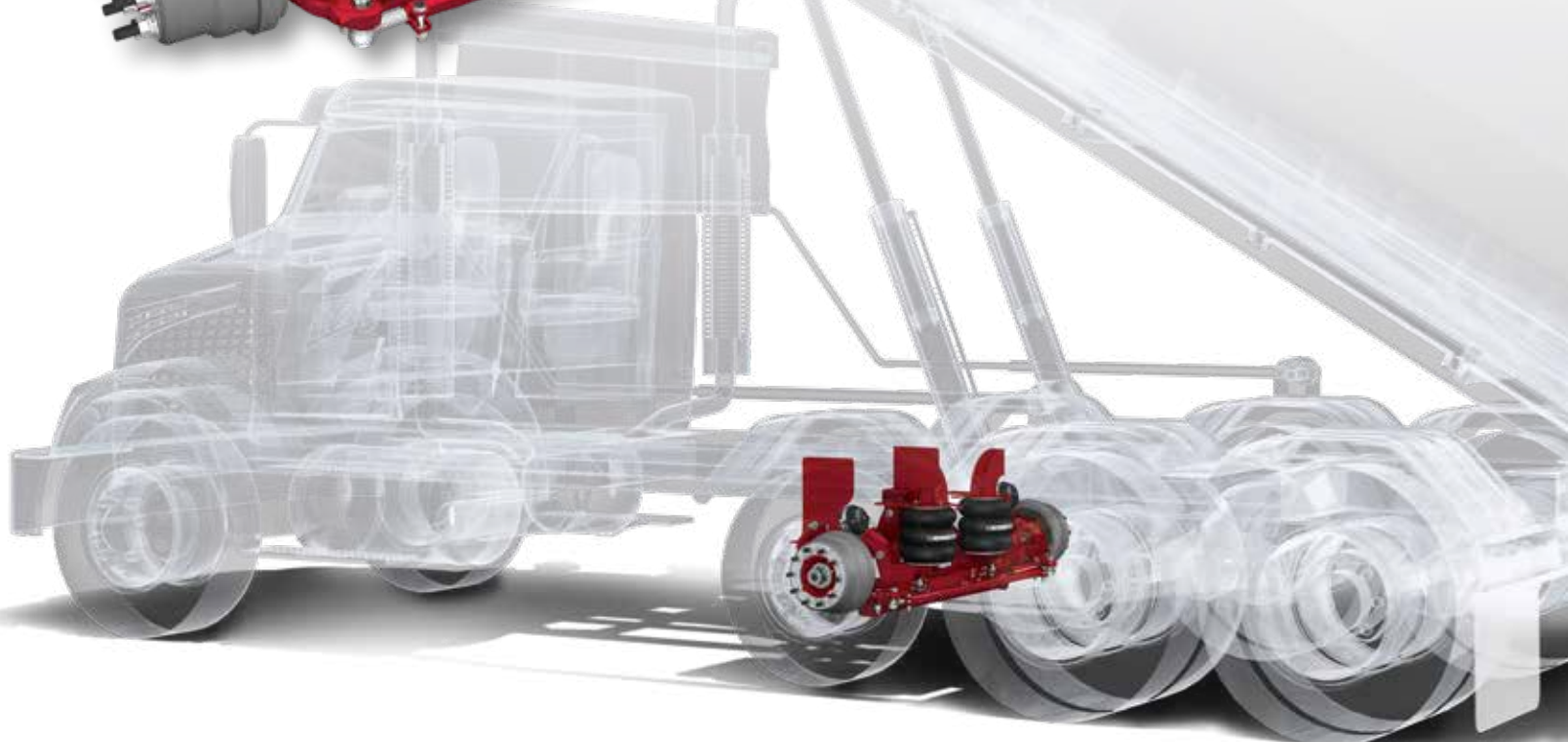
TOUGHLIFT® FMO



TOUGHLIFT® FRT



COMPOSILITE® EXS Roll-Off



TOUGHLIFT® Suspension Systems

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

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

- 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:	26 inches
Wheel Cut:	20 degrees



Wheel Cut



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

EXF 13K

The COMPOSILITE® EXF non-steerable suspension was 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.

EXF 13K Specifications

Capacity:	Up to 13,500 pounds
Weight (with drum brakes):	918 pounds
Brakes:	15 × 4 inch
Travel:	13 inches
Lift:	10 inches
Packaging Space:	22.1 inches



EXF 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.

EXF Roll-Off Specifications

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



TOUGHLIFT® Suspension Systems

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.

FRT 13K

FRT 13K 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



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

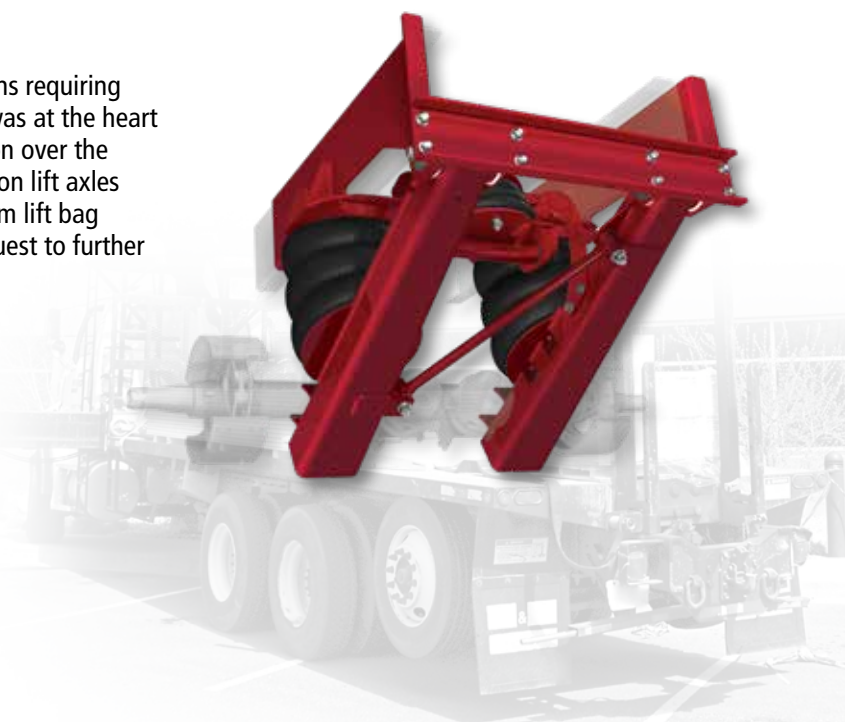


FRT 18K

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

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® Suspension Systems

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

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:	26 inches



FMO 20/25K

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:	6.5 inches
Axle Type:	5 inch round
Packaging Space:	26 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.



Lockstraight

- 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 are always available

Air Control Systems

		AVAILABLE MODELS		
		INSIDE-MOUNTED	OUTSIDE-MOUNTED (COMPOSITE)	OUTSIDE-MOUNTED (STAINLESS)
LIFT AXLE APPLICATION	Non-Steerable	LC-NSI_R2	LC-UCO_R2	LC-USO_R2
	Steerable	LC-SSI_R2		
	Reverse Lift and Lock	LC-LSI_R2	LC-LCO_R2	LC-LSO_R2
	Reverse Down and Lock	LC-RSI_R2	LC-RCO_R2	LC-RSO_R2
	Reverse Caster	LC-ASI_R2	LC-ACO_R2	LC-ASO_R2



Air Disc Brakes

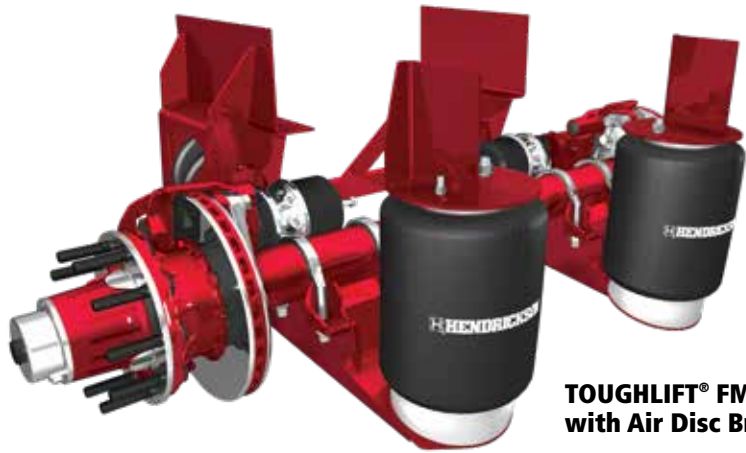
Versatile Braking Application

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**

Specifications

COMPOSILITE® and TOUGHLIFT®

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 (inches)
COMPOSILITE EX	EXS 08	8,000	831	8.5 - 20.5
	EXS 10	10,000	872	8.5 - 20.5
	EXS 13	13,500	922	8.5 - 20.5
	EXS 20	20,000	1,470	8.5 - 20.5
	EXS 13 (RO)	13,500	926	8.5 - 20.5
	EXS 20 (RO)	20,000	1,393	8.5 - 20.5
TOUGHLIFT	LKT 25	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 (inches)
COMPOSILITE EX	EXF 13	13,500	918	8.5 - 20.5
	EXF 13 (RO)	13,500	907	8.5 - 20.5
TOUGHLIFT	FRT 13	13,000	1,005	9.5 - 13.5
	FRT 16	16,000	1,064	9.5 - 13.5
	FRT 18	18,000	1,350	9.5 - 13.5
	FMT 20	20,000 - 25,000	1,216	10.0 - 13.0
	FMO 20	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®



COMPOSILITE® EXS

AUXILIARY TRUCK



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 on 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

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