

# 9,000 - 15,000 LBS. CAPACITY



# Introduction



This information is intended as a guide for the proper specification and application of Dexter Axle running gear, associated components and accessories.

Dexter offers a full line of trailer axles that can be used in many different applications. When specifying any pre-engineered components such as axles, it is the responsibility of the trailer designer to insure compatibility with the vehicle and all of its sub-systems.

### Information

The information presented is meant to assist trailer manufacturers in the specification of their running gear components. Dexter Axle does not warrant that the information given constitutes an approved trailer design or application. Dynamic loading, travel requirements unique to the trailer design, unusual service conditions, trailer configurations, unequal load distribution, hitch or coupler arrangements and towing vehicle suspension characteristics can significantly affect the performance of any trailer axle and/or suspension systems. It remains the responsibility of the trailer manufacturer to evaluate, specify and test their trailer/running gear combination before production and to certify it as such. While the information presented at the time of this writing is current, it is subject to change as designs and components evolve over time.

### Disclaimer of Warranty and Limitation of Liability

All users of this product catalog acknowledge that the information presented is significantly affected by factors within the exclusive knowledge of the user including, among other things, service conditions, trailer configurations, load distributions, hitch and coupler arrangements and tow vehicle suspension characteristics, that the users have independently investigated these factors and have solely relied on those investigations when using this catalog, and that it is the responsibility of the user to adequately specify, evaluate and test its trailer/running gear combinations.

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### Load Ratings

The maximum load carrying capacity of any assembly is limited to the lowest load rating of any individual component selected. For instance, the load rating of a pair of wheels may be lower than other axle components selected. If this is the case, the load carrying capacity of the axle assembly is reduced accordingly. As a specific example, if a pair of wheels is rated at 1500 pounds each and is used with other components rated at 4000 pounds per axle, the maximum load capacity is limited to 3000 pounds. If two tires are rated at 1400 pounds each and are used on this assembly, the maximum load carrying capacity is limited to 2800 pounds.

### Axle Orientation

When working with trailer running gear, it is important to understand the various features and descriptions of the equipment. Most trailer axles are directional by nature, that is, it is imperative that they be installed onto the trailer in the proper manner to ensure brake functioning and correct wheel alignment. The front of the axle must be oriented toward the front of the trailer. The convention used to define right and left is based on viewing the trailer from the rear and facing in the direction of forward travel.

Features to help identify the front of the axle:

- Electric brake wires exit brake backing plates toward the rear of the axle.
- 121/4" hydraulic brakes have view ports through the dust shield on the back of the assembly. Where the brake lining is visible in the view port, that will indicate the rear or secondary shoe which is always oriented toward the rear of the axle.

# Introduction



- Slipper springs have the spring eye at the front of the axle.
- Leaf spring axles with inner wiring have the wires exit the tube toward the rear of the axle.
- Torflex® axles have the wheel center trailing behind the axle tube.
- Axles using ¾" spherical ball seat wheel nuts will have right and left handed threads. The right handed thread
  must be on the right end or curb side of the axle while the left handed thread will be on the left end or road side
  of the axle.

### Stub Axle Disclaimer

A stub axle is described as a trailer axle spindle, welded to a short length of tubing. Stub axles may be specified and purchased as plain spindle/tube weldments or they may be fully assembled wheel end units, with or without trailer brakes.

These incomplete axles are sold to manufacturers who wish to incorporate them into a variety of applications such as specialty vehicular axles, belt tensioning devices, machinery pivot points, etc. **Dexter Axle has no control of the design intent of these special applications and therefore cannot apply a rating or capacity to these components.** 

The spindle/tube connection has been designed for suitable stress levels when used in a trailer axle, mounted to an approved suspension system and loaded to no more than the stated capacity. The use of all or part of the product for applications other than its intended purpose may not be appropriate. It is the customers' responsibility to determine the efficacy and safety of their particular application.

Torflex® axles can also be purchased as stub axles. This type of axle incorporates a self-contained suspension system. They can be specified as stub assemblies that will be rated for capacity when fitted with approved mounting brackets. The stated capacity will be based on the lowest rated component in each assembly.

These stub assemblies are essentially half axles that are intended to be mounted to the trailer chassis independent of each other. The trailer manufacturer must assume responsibility for the integrity of the attachment as well as the final wheel alignment since independent mounting puts these critical aspects out of Dexter's control. If used in pairs of unequal capacity, the trailer manufacturer should assign a Gross Axle Weight Rating of not more than two times the capacity of the lower rated sub assembly.

# **Table of Contents**

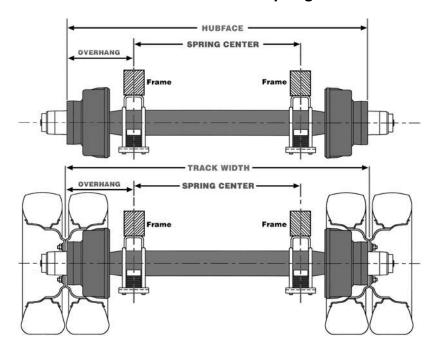


Required Axle Dimensions – Spring Suspensions	4
Required Axle Dimensions – Torflex® Suspensions	5
Heavy Duty Utility Axle Beam Features	6
Torflex® Axle Beam Features	6
Torflex® Application Information (#13)	7
9K, 10K, #13G GD Two-Piece Hub Group (after 4/13)	8
9K, 10K, #13G GD One-Piece Hub Group (after 7/09)	9
9K, 10K, #13G GD Two-Piece Hub Group (before 7/09)	10
10,000 Lb. Heavy Duty Wheel and Hub Assembly	11
12,000 and 15,000 Lb. Wheel and Hub Assembly	12
Torflex® Application Information (#14)	13
10K, 12K, 15K, #13D, and #14 Hub Groups	14
10,000 & 12,000 Lb. Hydraulic Disc Brake	15
Hydraulic Disc Brake Parts	15
Forward Self-Adjusting Electric Brake	16
Electric Brake Parts-Stamped Backing Plate	17
Electric Brake Parts - Cast Backing Plate	18
Forward Self-Adjusting Hydraulic Brake	19
Hydraulic Brake Parts	20
#13G and #13D Torflex® Hydraulic Disc Brake	21
Torflex® Hydraulic Disc Brake Parts	21
Electric Brake Wiring Diagram	22
Air Brake System Diagram	22
"S" Cam Air Brake	23
Small "S" Head Hi-Rise 28 Spline	23
Air Brake Parts "PQ" Style	24
Electric-Hydraulic Brake System Diagram	25
Wheels and Tires	26
Axle Overhang	26
Oil Lubrication Specification	27
Bearing Adjustment	27
Axle Suspension System	28
Cross Frame Hanger Reinforcement	28
Attaching Parts Suspension Kits	29
Airflex® for 10,000 Lb. Axles	32
Limited Warranty	33
Dexter Axle Video Gallery	34

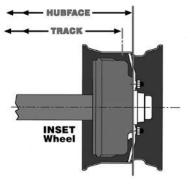
# Required Axle Dimensions Options for Spring Suspension Axles

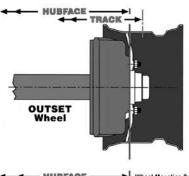


# **Hubface** — Track Width — Spring Center

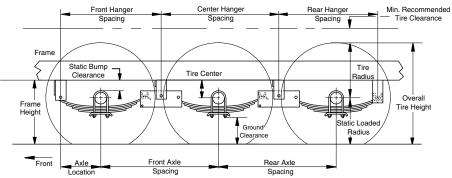


### **Wheel Offset**

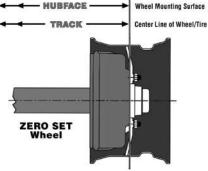




Rear Hanger Min. Reco

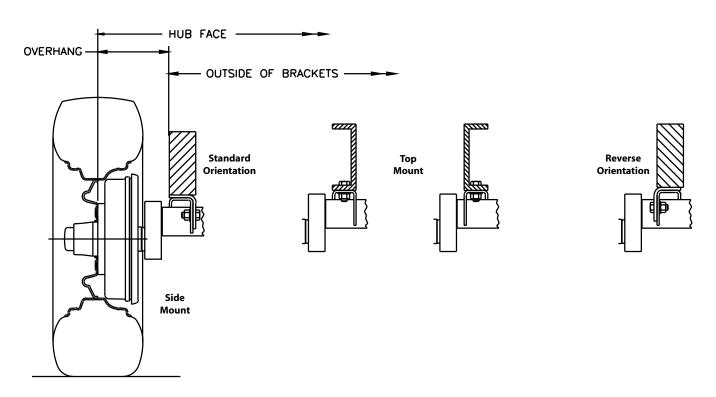


**Axle Spacing** 





# **Bracket Orientation**



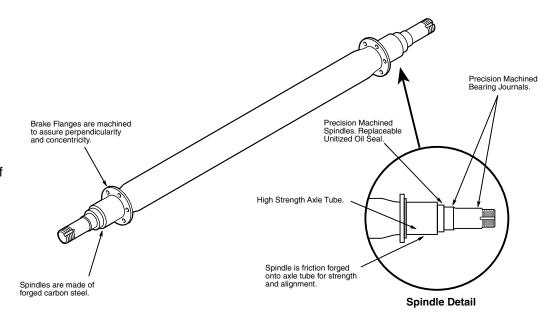
### **Bracket Profile**



# **Dexter Heavy Duty Utility Axle Beam Features**



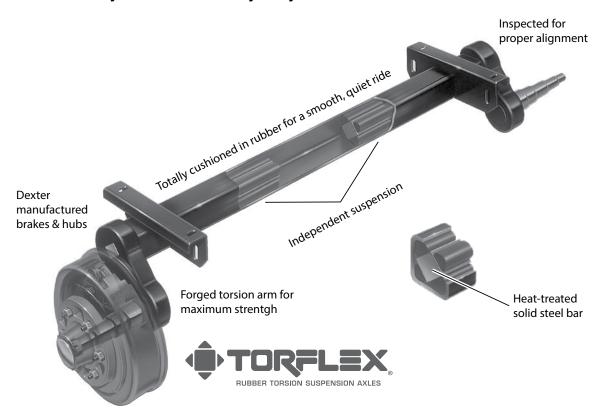
- Highest strength axle tube generally available for utility vehicle axles.
- Materials used allow a stiffer and stronger axle beam with no camber required.
- The backing plate of the Dexter electric or hydraulic brake mounts on piloted axle brake flange. This assures that brakes will perform effectively.



#14

# Torflex® Axle Beam Features

#13G - General Duty #13D - Heavy Duty



CAUTION: Triple axle assemblies are NOT recommended for #13 or #14 Torflex® axles.

# **Torflex® Application Information** 9,000-10,000 Lbs.





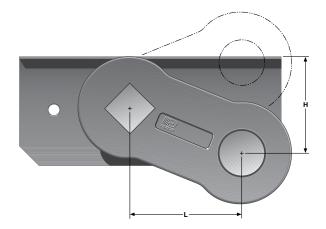
### **Articulation Dimensions**

Dimensions are for high profile, top mount only. Side mount is .31" higher. Allow 3" bump clearance from full load.

		No	Load	Full	Load	Shock	Load
Start Angle	Bracket Profile	Н	L	Н	L	Н	L
45° Down	High	7.18	4.24	5.24	5.54	4.24	5.83
32° Down	High	6.12	5.09	3.93	5.92	2.94	5.84
22.5° Down	High	5.24	5.54	2.94	6.00	1.90	5.91
10° Down	High	3.98	5.91	1.64	5.86	0.64	5.54
0°	High	2.94	6.00	0.64	5.54	-0.28	5.06
10° Up	High	1.90	5.91	-0.28	5.06	-0.11	4.42
22.5° Up	High	0.64	5.54	-1.30	4.24	-1.97	3.44

Over	hang	Per	Sic	de
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Spindle	Min.	Max.	Brake
#13D	12.25"	17.20"	121/4" x 4"
#13G one-piece	10.11"	17.20"	121/4" x 33/8"
#13G two-piece	11.35"	17.20"	121/4" x 33/8"



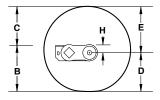
**Note:** Positive numbers in the H column indicate the spindle is BELOW the top of the bracket. Conversely, negative numbers are ABOVE the top of the bracket.

**Note:** Dual wheel not available for #13G one-piece. One-piece hub/drum is not interchangeable with the two-piece hub & drum.

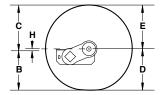


### **Full Load Dimensions**

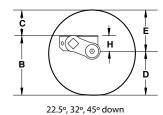
Dimensions are for high profile, top mount only. Side mount is .31" higher. Allow 3" bump clearance from full load.







10°, 22.5° up



Start Angle
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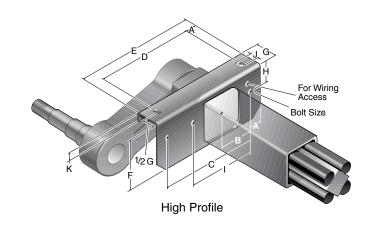
												<u> </u>											
	*	* *	4	5° Dov	vn	32	2° Dov	vn	22	.5° Do	wn	10	)° Dov	vn		0°			10° Up	)	2	2.5° U	Jp
Tire	D	Ε	Н	В	С	Н	В	С	Н	В	С	Н	В	С	Н	В	С	Н	В	С	Н	В	С
LT235/85R16	14.3	15.4	5.2	19.5	10.2	3.9	18.2	11.4	2.9	17.2	12.5	1.6	15.9	13.8	.6	14.9	14.8	-0.3	14.0	15.7	-1.3	13.0	16.7
215/75R17.5	14.0	15.3	5.2	19.2	10.1	3.9	17.9	11.3	2.9	16.9	12.4	1.6	15.6	13.7	.6	14.6	14.7	-0.3	13.7	15.6	-1.3	12.7	16.6
235/75R17.5	14.3	15.7	5.2	19.5	10.5	3.9	18.2	11.7	2.9	17.2	12.8	1.6	15.9	14.1	.6	14.9	15.1	-0.3	14.0	16.0	-1.3	13.0	17.0
9R17.5HC	15.4	17.1	5.2	20.6	11.9	3.9	19.3	13.1	2.9	18.3	14.2	1.6	17.0	15.5	.6	16.0	16.5	-0.3	15.1	17.4	-1.3	14.1	18.4
10R17.5HC	15.6	18.0	5.2	20.8	12.8	3.9	19.5	14.0	2.9	18.5	15.1	1.6	17.2	16.4	.6	16.2	17.4	-0.3	15.3	18.3	-1.3	14.3	19.3

Columns D and E are dimensional examples only:

- \* D Static Loaded Radius
- \*\* E Inflated Radius

#13D & #13G
<b>Bracket Dimensions</b>

Bracket Di	mensions
A	1.22
В	3.63
С	10.56
D	10.56
E	13.00
F	5.50
G	2.50
H	2.25
	7.26
J	1.00
K	1.00
Bolt Size	%" bolt
Tube Size	3.88

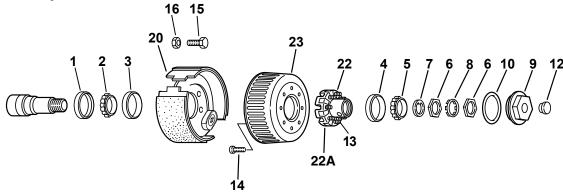


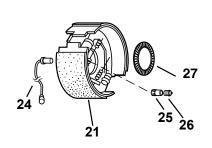


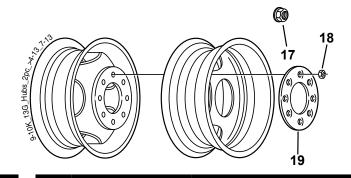
# 9K, 10K, and #13G General Duty Two-Piece Hub Group



# After April 2013







Stand	ard	Oil	Lube	<b>Parts</b>

Item	Part No.	Description
1	010-051-00	Oil Seal
2	031-019-02	387A Inner Bearing Cone
3	031-019-01	382A Inner Bearing Cup
4	031-030-01	25520 Outer Bearing Cup
5	031-030-02	25580 Outer Bearing Cone
6	006-096-00	Spindle Nut (2)
7	005-070-00	Spindle Washer
8	005-071-00	Tang Washer
9	021-088-00	Oil Cap
10	010-163-00	'O' Ring
12	046-032-00	Oil Cap Plug
13	007-115-00	%-18 Wheel Stud
14	007-292-00	Drum Mounting Screw
15	007-116-00	Brake Mounting Bolt
16	006-017-00	Brake Mounting Nut
ns	005-008-00	Lockwasher

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		Tidb & Bidiii
Item	Part No.	Description
ns	008-430-05	Oil Hub and Drum w/Cups and Studs
22	008-430-03	Oil Hub w/Cups and Studs
23	009-123-01	Drum - Machined
ns	008-430-07	Oil Hub and Drum w/Cups and Studs ABS
22	008-430-03	Oil Hub w/Cups and Studs
ns	009-123-03	Drum - for ABS

ns - not shown

### 121/4" x 33/8" Brakes

Item	Part No.	Description
20	K23-450-00/K23-451-00	LH/RH Electric, FSA
21	K23-410-00/K23-411-00	LH/RH Hydraulic, FSA, Duo-Servo
21	K23-210-00/K23-211-00	LH/RH Hydraulic, RSA, Du-Servo w/Park
ns	K23-412-00/K23-413-00	LH/RH Hydraulic, FSA, Single-Servo
ns	K23-234-00/K23-235-00	LH/RH Hydraulic, Manual Adjust Single-Servo w/Park

### **ABS Components**

Item	Part No.	Description
24	097-004-00	Sensor, Straight
25	024-204-00	Sensor Block
26	097-002-00	Sensor Clip
27	024-205-01	Tone Ring
ns	007-248-00	Tone Ring Screws

### **Studs and Wheel Nuts**

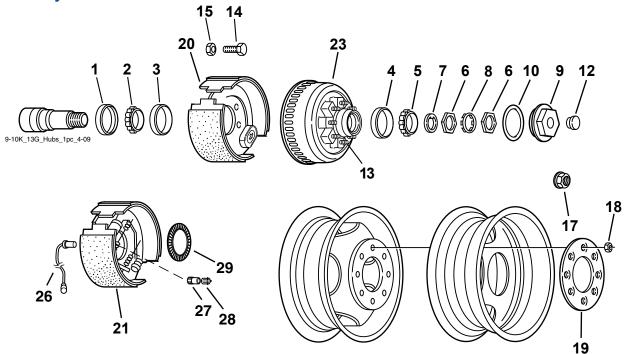
Item	Part No.	Description	Nut Torque
18*	006-109-00	%-18 90° Cone Nut	200 lbsft
19*	033-052-01	Clamp Ring	
17	006-058-00	%-18 Flange Nut	300 lbsft
13	007-115-00	5/s-18 Press-in Stud	

 $<sup>^{\</sup>star}$  Must use the 90° cone nut with the clamp ring. Alternate fastener is just the flange nut.

# 9K, 10K, and #13G General Duty One-Piece Hub Group



# After July 2009



Note: Dual wheel cannot be used with #13G

Standard Oil Lube Parts		
Item	Part No.	Description
1	010-051-00	Oil Seal
2	031-019-02	387A Inner Bearing Cone
3	031-019-01	382A Inner Bearing Cup
4	031-030-01	25520 Outer Bearing Cup
5	031-030-02	25580 Outer Bearing Cone
6	006-096-00	Spindle Nut (2)
7	005-070-00	Spindle Washer
8	005-071-00	Tang Washer
9	021-088-00	Oil Cap
10	010-163-00	'O' Ring
12	046-032-00	Oil Cap Plug
13	007-115-00	5%-18 Wheel Stud
14	007-116-00	Brake Mounting Bolt
15	006-017-00	Brake Mounting Nut
ns	005-008-00	Lockwasher

Hub & Drum		
Item	Part No.	Description
23	008-415-02	Hub & Drum Assembly
ns	008-415-04	Hub & Drum Assembly - ABS

ns - not shown

121/4" x 3%" Brakes			
Item	Part No.	Description	
20	K23-450-00/K23-451-00	LH/RH Electric, FSA	
21	K23-410-00/K23-411-00	LH/RH Hydraulic, FSA, Duo-Servo	
21	K23-210-00/K23-211-00	LH/RH Hydraulic, RSA, Du-Servo w/Park	
ns	K23-412-00/K23-413-00	LH/RH Hydraulic, FSA, Single-Servo	
ns	K23-234-00/K23-235-00	LH/RH Hydraulic, Manual Adjust Single-Servo w/Park	

ABS Components			
Item	Part No.	Description	
26	097-004-00	Sensor, Straight	
27	024-204-00	Sensor Block	
28	097-002-00	Sensor Clip	
29	024-205-01	Tone Ring	
ns	007-248-00	Tone Ring Screws	

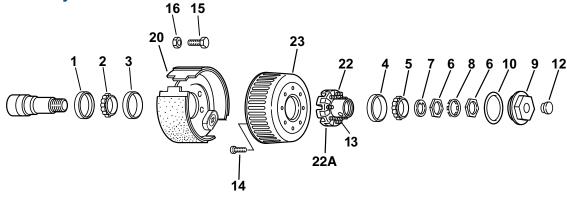
Studs and Wheel Nuts			
Item	Part No.	Description	Nut Torque
18*	006-109-00	5⁄8-18 90° Cone Nut	200 lbsft
19*	033-052-01	Clamp Ring	
17	006-058-00	5/8-18 Flange Nut	300 lbsft
13	007-115-00	%-18 Press-in Stud	

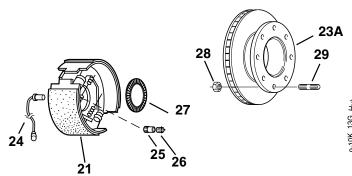
 $<sup>^{\</sup>star}$  Must use the 90° cone nut with the clamp ring. Alternate fastener is just the flange nut.

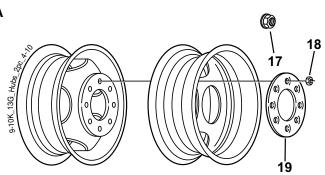
# 9K, 10K, #13G, #14T General Duty Two-Piece Hub Group



# Before July 2009







Stand	lard	Oil	Lube	<b>Parts</b>

Item	Part No.	Description
1	010-051-00	Oil Seal
2	031-019-02	387A Inner Bearing Cone
3	031-019-01	382A Inner Bearing Cup
4	031-030-01	25520 Outer Bearing Cup
5	031-030-02	25580 Outer Bearing Cone
6	006-096-00	Spindle Nut (2)
7	005-070-00	Spindle Washer
8	005-071-00	Tang Washer
9	021-036-00	Oil Cap
10	010-050-00	'O' Ring
12	046-032-00	Oil Cap Plug
13	007-115-00	%-18 Wheel Stud
14	007-245-00	Drum Mounting Screw
15	007-116-00	Brake Mounting Bolt
16	006-017-00	Brake Mounting Nut
ns	005-008-00	Lockwasher

### **Hub & Drum**

Item	Part No.	Description
22	008-288-03	Oil Hub w/Cups and Studs
23	009-044-01	Drum - Machined
ns	009-044-03	Drum - for ABS
ns	008-288-05	Oil Hub and Drum w/Cups and Studs

### Hub & Rotor Available on #13G – Not Offered on D90, D100G, #14T

Item	Part No.	Description
22A	008-288-07	Oil Hub w/Cups and Studs
23A	070-006-01	Brake Rotor
28	006-046-00	Rotor Mounting Nut
29	025-014-00	Rotor Mounting Stud

### 121/4" x 33/8" Brakes

Item	Part No.	Description
20	K23-450-00/K23-451-00	LH/RH Electric, FSA
21	K23-410-00/K23-411-00	LH/RH Hydraulic, FSA, Duo-Servo
21	K23-210-00/K23-211-00	LH/RH Hydraulic, RSA, Du-Servo w/Park
ns	K23-412-00/K23-413-00	LH/RH Hydraulic, FSA, Single-Servo
ns	K23-234-00/K23-235-00	LH/RH Hydraulic, Manual Adjust Single-Servo w/Park

### **ABS Components**

Item	Part No.	Description
24	097-004-00	Sensor, Straight
25	024-204-00	Sensor Block
26	097-002-00	Sensor Clip
27	024-203-00	Tone Ring

### **Studs and Wheel Nuts**

Item	Part No.	Description	Nut Torque					
18*	006-109-00	%-18 90° Cone Nut	200 lbsft					
19*	033-052-01	Clamp Ring						
17	006-058-00	%-18 Flange Nut	300 lbsft					
13	007-115-00	%-18 Press-in Stud						
ne not shown								

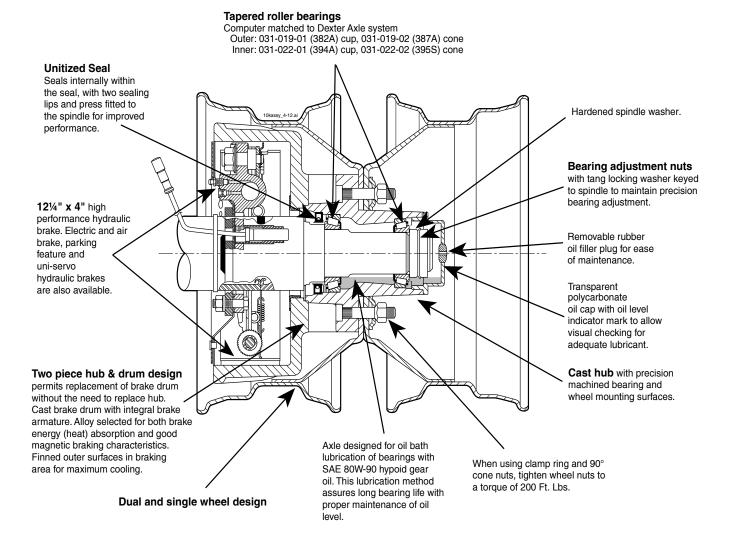
ns - not show

One-piece hub/drum is not interchangeable with the two-piece hub & drum.

<sup>\*</sup> Must use the 90° cone nut with the clamp ring. Alternate fastener is just the flange nut.

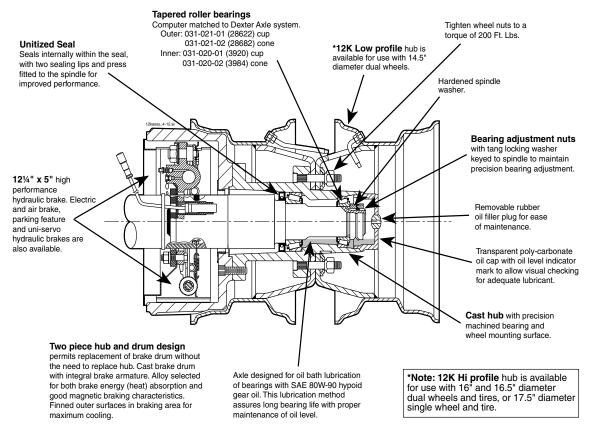
# 10,000 Lb. Heavy Duty Wheel & Hub Assembly



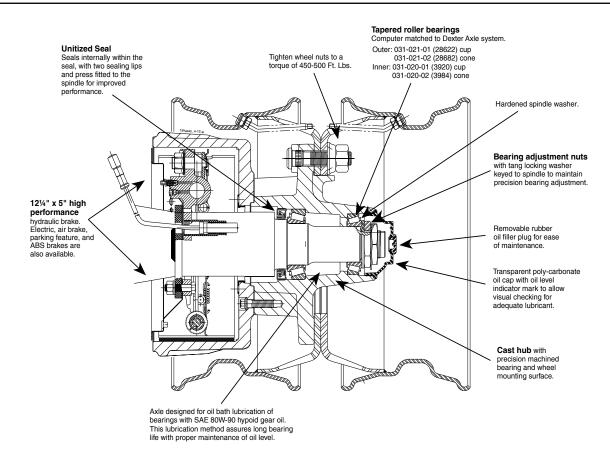


# 12,000 Lb. Wheel & Hub Assembly





# 15,000 Lb. Wheel & Hub Assembly



# Torflex® Application Information 12,000 Lbs.





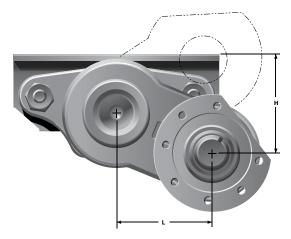
### **Articulation Dimensions**

Dimensions are for #14 bracket. Allow 3" bump clearance from full load.

		No	Load	Full	Load	Shock	Load
Start Angle	Bracket Profile	Н	L	Н	L	Н	L
45° Down	High	7.68	4.24	5.74	5.54	4.74	5.83
32° Down	High	6.62	5.09	4.43	5.92	3.44	5.84
22.5° Down	High	5.74	5.54	3.44	6.00	2.40	5.91
10° Down	High	4.48	5.91	2.14	5.86	1.14	5.54
0°	High	3.44	6.00	1.14	5.54	0.22	5.06
10° Up	High	2.40	5.91	0.22	5.06	0.39	4.42
22.5° Up	High	1.14	5.54	-0.80	4.24	-1.47	3.44

Overhang	Per Si	de
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Spindle	Min.	Brake		
#14	12.75"	121/4" x 5"		
#14T	9.89"	121/4" x 33/8"		
#14	9.19"	Disc		

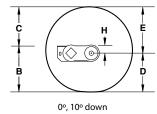


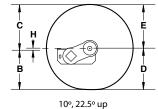
**Note:** Positive numbers in the H column indicate the spindle is BELOW the top of the bracket. Conversely, negative numbers are ABOVE the top of the bracket.

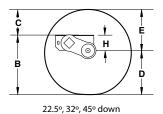
**Note:** One-piece hub/drum is not interchangeable with the two-piece hub & drum.



# **Full Load Dimensions**







Start Angle
-------------

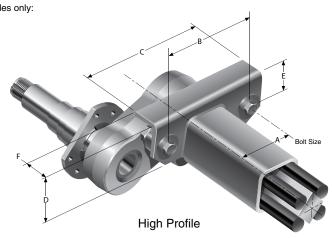
	Start Arigie																						
* ** 45° Down 32° Down 22.5° Down 10° Down 0°											10° Up 22.5° l			2.5° U	Up								
Tire	D	Ε	Н	В	С	Н	В	С	Н	В	С	Н	В	С	Н	В	С	Н	В	С	Н	В	C
LT235/85R16	14.3	15.4	5.7	20.0	9.70	4.4	18.7	11.0	3.4	17.7	12.0	2.1	16.4	13.3	1.1	15.4	14.3	.2	14.5	15.2	-0.8	13.5	16.2
215/75R17.5	14.0	15.3	5.7	19.7	9.60	4.4	18.4	10.9	3.4	17.4	11.9	2.1	16.1	13.2	1.1	15.1	14.2	.2	14.2	15.1	-0.8	13.2	16.1
235/75R17.5	14.3	15.7	5.7	20.0	10.0	4.4	18.7	11.3	3.4	17.7	12.3	2.1	16.4	13.6	1.1	15.4	14.6	.2	14.5	15.5	-0.8	13.5	16.5
9R17.5HC	15.4	17.1	5.7	21.1	11.4	4.4	19.8	12.7	3.4	18.8	13.7	2.1	17.5	15.0	1.1	16.5	16.0	.2	15.6	16.9	-0.8	14.6	17.9
10R17.5HC	15.6	18.0	5.7	21.3	12.3	4.4	20.0	13.6	3.4	19.0	14.6	2.1	17.7	15.9	1.1	16.7	16.9	.2	15.8	17.8	-0.8	14.8	18.8

Columns D and E are dimensional examples only:

- \* D Static Loaded Radius
- \*\* E Inflated Radius

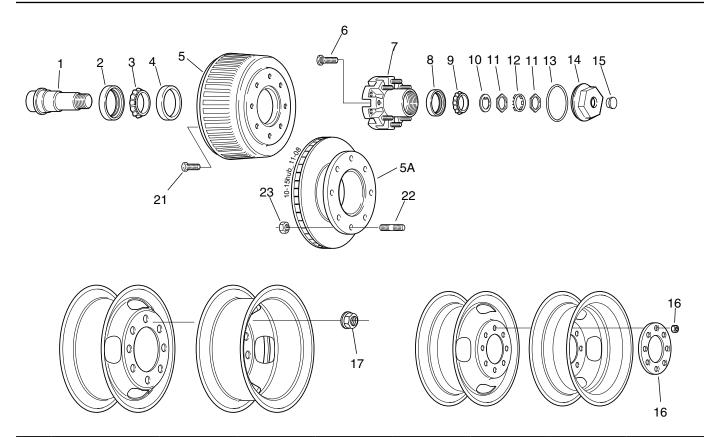
Tube Size

#14									
<b>Bracket Dimensions</b>									
Α	4.50								
В	9.00								
С	12.00								
D	4.50								
E	2.44								
F	2.50								
Bolt Size	3/4" bolt								



# 10K, 12K, 15K, #13D, and #14 Hub Groups

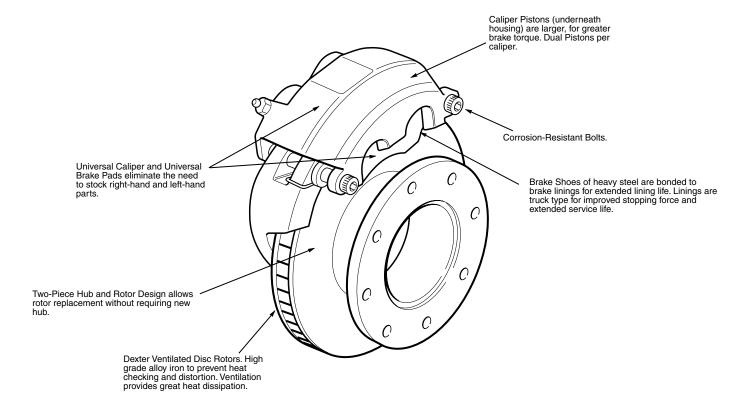




Item	Description	10K, #13D 8 on 6.50	10K, #13D Disc 8 on 6.50	12K Low-Profile 8 on 6.50	12K Hi-Profile 8 on 6.50	#14 Hi-Profile 8 on 6.50	12K Disc 8 on 6.50	15K 8 on 275 mm
2	Unitized Oil Seal	010-056-00	010-056-00	010-056-00	010-056-00	010-056-00	010-056-00	010-056-00
3	Inner Bearing Cone	031-022-02 (395S)	031-022-02 (395S)	031-020-02 (3984)	031-020-02 (3984)	031-020-02 (3984)	031-020-02 (3984)	031-020-02 (3984)
4	Inner Bearing Cup	031-022-01 (394A)	031-022-01 (394A)	031-020-01 (3920)	031-020-01 (3920)	031-020-01 (3920)	031-020-01 (3920)	031-020-01 (3920)
5	Brake Drum	009-027-01	_	009-028-01	009-028-01	009-028-01	_	009-028-01
5	Brake Drum-ABS	009-027-03	_	009-028-05	009-028-05	009-028-05	_	009-028-05
5A	Brake Rotor	_	070-006-01	_	_	_	070-006-01	_
5A	Brake Rotor-ABS	_	070-006-02	_	_	_	070-006-02	_
6	Wheel Mounting Stud	007-115-00 -	007-115-00 -	007-115-00	007-115-00 -	007-115-00 -	007-115-00 -	007-194-00 (std) 007-195-00 (long)
7	Hubs w/Cups & Studs	008-214-05 -	008-214-06 -	008-216-08 -	008-214-08 -	008-422-03 -	008-214-10 -	008-401-05 (std stud) 008-401-06 (long stud)
8	Outer Bearing Cup	031-019-01 (382A)	031-019-01 (382A)	031-021-01 (28622)	031-021-01 (28622)	031-021-01 (28622)	031-021-01 (28622)	031-021-01 (28622)
9	Outer Bearing Cone	031-019-02 (387A)	031-019-02 (387A)	031-021-02 (28682)	031-021-02 (28682)	031-021-02 (28682)	031-021-02 (28682)	031-021-02 (28682)
10	Spindle Washer	005-060-00	005-060-00	005-060-00	005-060-00	005-060-00	005-060-00	005-060-00
11	Spindle Nut	006-084-00	006-084-00	006-084-00	006-084-00	006-084-00	006-084-00	006-084-00
12	Tang Washer	005-059-00	005-059-00	005-059-00	005-059-00	005-059-00	005-059-00	005-059-00
13	Oil Cap "O" Ring	010-050-00	010-050-00	010-050-00	010-050-00	010-050-00	010-050-00	010-050-00
14	Oil Cap	021-036-00	021-036-00	021-036-00	021-036-00	021-036-00	021-036-00	021-036-00
15	Oil Cap Plug	046-032-00	046-032-00	046-032-00	046-032-00	046-032-00	046-032-00	046-032-00
16	Wheel Clamp Ring Wheel Nut	033-052-01 006-109-00	033-052-01 006-109-00	033-052-01 006-109-00	033-052-01 006-109-00	033-052-01 006-109-00	033-052-01 006-109-00	=
17	Flange Nut (swivel)	_	_	_	_	_	_	006-118-00
21	Drum Mounting Screw	007-244-00	_	007-244-00	007-244-00	007-245-00	_	007-244-00
22	Rotor Mounting Stud	_	025-014-00	_	_	_	025-014-00	_

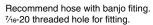
# 10,000 and 12,000 Lb. Hydraulic Disc Brake

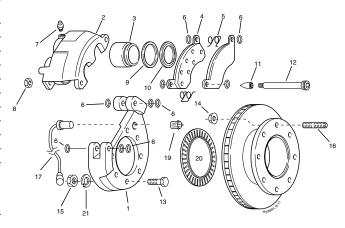




# **Hydraulic Disc Brake Parts**

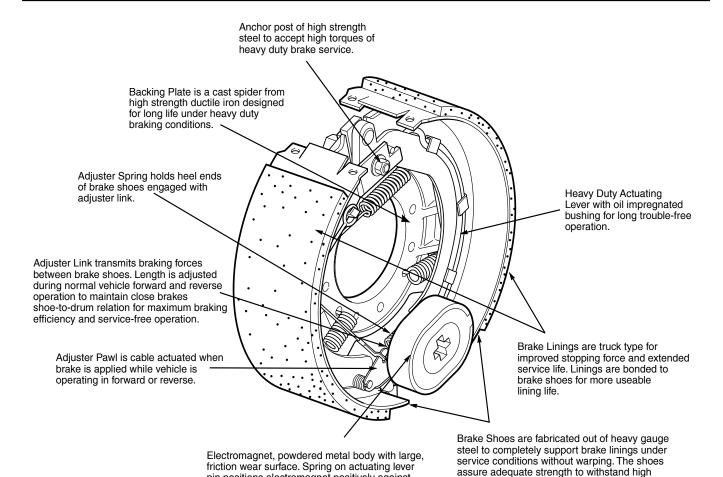
Item	Description	Qty/Brake	10K, 12K	#14
1	Anchor Yoke Assembly (includes 6 of item #6)	1	090-002-02	090-011-02
2	Caliper Assembly (includes items #6, 3, 9, 10)	1	089-002-02	089-002-02
3	Caliper Piston	2	054-066-00	054-066-00
12	Shoulder Screw 5/8 x 5	2	007-186-00	007-186-00
13	Hex Screw 7/16-20 x 1.75	7	007-116-00	007-116-00
14	Flange Nut	8	006-046-00	_
15	Hex Nut 7/16-20	7	006-017-00	006-017-00
16	Rotor Mounting Stud	8	025-014-00	_
17	ABS Sensor (straight)	1	097-004-00	_
19	ABS Sensor Retaining Clip	1	097-002-00	_
20	ABS Tone Ring	1	024-203-00	_
21	Lock Washer	7	005-008-00	-
Calipe	er Repair Kit Contains:	1	K71-181-00	K71-181-00
6	"O" Ring	4	010-062-00	010-062-00
7	Bleeder Screw	1	054-069-00	054-069-00
9	Caliper Seal	2	054-067-00	054-067-00
10	Dust Boot	2	054-068-00	054-068-00
Disc E	Brake Replacement Pad Kit Contains:	1	K71-180-00	K71-180-00
4	Brake Pad	4	091-003-00	091-003-00
5	Anti-Rattle Spring	4	046-105-00	046-105-00
6	"O" Ring	20	010-062-00	010-062-00
8	Hex Locknut	4	006-125-00	006-125-00
11	Installation Tool	1	071-182-00	071-182-00





# Forward Self-Adjusting Electric Brake





forces needed for more efficient braking.

pin positions electromagnet positively against

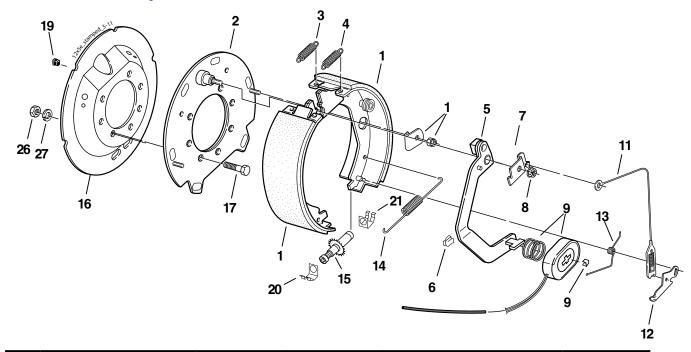
drum armature surface.

Electric Brakes									
Size	Capacity	Part No. LH	Part No. RH						
121/4" x 33/8"	9K, 10K GD, #13G	K23-450-00	K23-451-00						
121/4" x 4"	10K, #13D	K23-438-00	K23-439-00						
12¼" x 5"	12K	K23-442-00	K23-443-00						
121/4" x 5"	15K	K23-446-00	K23-447-00						

# Electric Brake Parts—Stamped Backing Plate Prior to April 2000



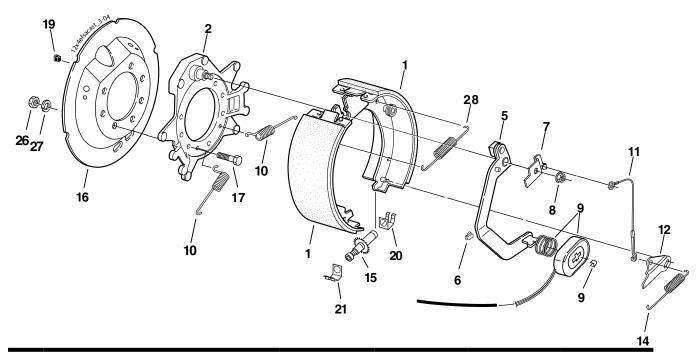
# **Service Parts Only**



			12¼" x 3%" 9K, 10K GD, #13G	121/4" x 4" 10K, #13D	12¼" x 5" 12K	12¼" x 5" 15K
Item	Description	Qty Per Brake	Part No.	Part No.	Part No.	Part No.
1	LH Shoe & Lining Kit Contains: LH Primary LH Secondary Shoe Hold Down Washer Lock Nut	1 1 1 2 2	K71-049-00 040-110-01 040-111-02 005-107-00 006-127-00	K71-051-00 040-108-01 040-109-02 005-107-00 006-127-00	K71-053-00 040-102-01 040-103-02 005-107-00 006-127-00	K71-053-00 040-102-01 040-103-02 005-107-00 006-127-00
1	RH Shoe & Lining Kit Contains: RH Primary RH Secondary Shoe Hold Down Washer Lock Nut	1 1 1 2 2	K71-050-00 040-111-01 040-110-02 005-107-00 006-127-00	K71-052-00 040-109-01 040-108-02 005-107-00 006-127-00	K71-054-00 040-103-01 040-102-02 005-107-00 006-127-00	K71-054-00 040-103-01 040-102-02 005-107-00 006-127-00
_ 2	Backing Plate Assembly (obsolete)	1	036-072-05	036-072-05	036-072-06	036-072-06
3	Shoe Return Spring (rear-black)	1	046-071-00	046-071-00	046-071-00	046-071-00
4	Shoe Return Spring (front-green)	1	046-083-00	046-083-00	046-083-00	046-083-00
5	LH Actuator Arm Assembly RH Actuator Arm Assembly	1 1	047-123-38 047-123-37	047-123-38 047-123-37	047-123-36 047-123-35	047-123-36 047-123-35
6	Wire Clip	3	027-039-00	027-039-00	027-039-00	027-039-00
7	LH Arm/Shoe Retainer RH Arm/Shoe Retainer	1 1	071-455-01 071-455-02	071-455-01 071-455-02	071-455-01 071-455-02	071-455-01 071-455-02
8	Flange Nut	1	006-092-01	006-092-01	006-092-01	006-092-01
9	Magnet Kit Contains:  Magnet Retainer Clip  Magnet Assembly  Magnet Mounting Spring	1 1 1 1	K71-376-00 027-050-00 042-129-00 046-117-00	K71-376-00 027-050-00 042-129-00 046-117-00	K71-377-00 027-050-00 042-130-00 046-117-00	K71-378-00 027-050-00 042-131-00 046-117-00
11	Adjuster Cable	1	071-020-00	071-020-00	071-020-00	071-020-00
12	LH Adjuster Lever RH Adjuster Lever	1 1	071-019-01 071-019-02	071-019-01 071-019-02	071-019-01 071-019-02	071-019-01 071-019-02
13	LH Adjuster Lever Spring RH Adjuster Lever Spring	1 1	046-073-00 046-074-00	046-073-00 046-074-00	046-073-00 046-074-00	046-073-00 046-074-00
14	Adjuster Spring	1	046-072-00	046-072-00	046-072-00	046-072-00
15	LH Adjuster Assembly RH Adjuster Assembly	1 1	048-009-00 048-010-00	048-009-00 048-010-00	048-009-00 048-010-00	048-009-00 048-010-00
16	Dust Shield	1	036-115-21	036-115-22	036-115-23	036-115-23
17	Brake Mounting Screw	7	007-116-00	007-116-00	007-116-00	007-116-00
19	Wire Grommet	1	046-016-00	046-016-00	046-016-00	046-016-00
20	Adjuster Clip (thread end)	1	046-132-00	046-132-00	046-132-00	046-132-00
21	Adjuster Clip (barrel end)	1	046-133-00	046-133-00	046-133-00	046-133-00
26	Brake Mounting Nut	7	006-017-00	006-017-00	006-017-00	006-017-00
27	Brake Mounting Lockwasher	7	005-008-00	005-008-00	005-008-00	005-008-00

# Electric Brake Parts - Cast Backing Plate After April 2000

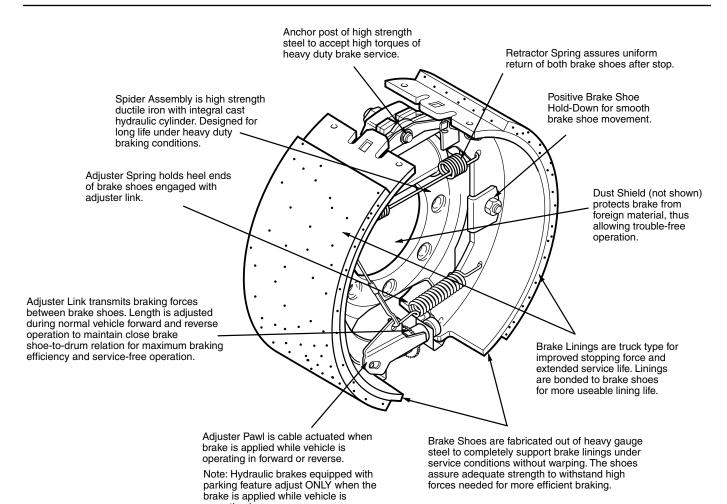




Item	Description	Qty Per Brake	121/4" x 33%" 9K, 10K GD, #13G Part No.	12¼" x 4" 10K, #13D Part No.	12¼" x 5" 12K Part No.	12¼" x 5" 15K Part No.
1	LH Shoe & Lining Kit Contains: LH Primary LH Secondary	1 1 1	K71-499-00 040-350-01 040-351-02	K71-501-00 040-352-01 040-353-02	K71-503-00 040-354-01 040-355-02	K71-503-00 040-354-01 040-355-02
1	RH Shoe & Lining Kit Contains: RH Primary RH Secondary	1 1 1	K71-498-00 040-351-01 040-350-02	K71-500-00 040-353-01 040-352-02	K71-502-00 040-355-01 040-354-02	K71-502-00 040-355-01 040-354-02
2	Backing Plate Assembly	1	036-120-02	036-120-02	036-120-02	036-120-02
5	LH Actuator Arm Assembly RH Actuator Arm Assembly	1 1	047-123-38 047-123-37	047-123-38 047-123-37	047-123-36 047-123-35	047-123-36 047-123-35
6	Wire Clip	3	027-039-00	027-039-00	027-039-00	027-039-00
7	LH Arm/Shoe Retainer RH Arm/Shoe Retainer	1 1	071-455-01 071-455-02	071-455-01 071-455-02	071-455-01 071-455-02	071-455-01 071-455-02
8	Flange Nut	1	006-092-01	006-092-01	006-092-01	006-092-01
9	Magnet Kit Contains: Magnet Retainer Clip Magnet Assembly Magnet Mounting Spring	1 1 1 1	K71-376-00 027-050-00 042-129-00 046-117-00	K71-376-00 027-050-00 042-129-00 046-117-00	K71-377-00 027-050-00 042-130-00 046-117-00	K71-378-00 027-050-00 042-131-00 046-117-00
10	Centering Spring	2	046-136-00	046-136-00	046-136-00	046-136-00
11	Adjuster Cable	1	071-462-00	071-462-00	071-462-00	071-462-00
12	LH Adjuster Lever RH Adjuster Lever	1	071-464-00 071-463-00	071-464-00 071-463-00	071-464-00 071-463-00	071-464-00 071-463-00
14	Adjuster Spring	1	046-137-00	046-137-00	046-137-00	046-137-00
15	LH Adjuster Assembly RH Adjuster Assembly	1 1	048-019-00 048-020-00	048-019-00 048-020-00	048-019-00 048-020-00	048-019-00 048-020-00
16	Dust Shield	1	036-115-21	036-115-22	036-115-23	036-115-23
17	Brake Mounting Screw	7	007-116-00	007-116-00	007-116-00	007-116-00
19	Wire Grommet	1	046-016-00	046-016-00	046-016-00	046-016-00
20	Adjuster Clip (thread end)	1	046-132-00	046-132-00	046-132-00	046-132-00
21	Adjuster Clip (barrel end)	1	046-133-00	046-133-00	046-133-00	046-133-00
26	Brake Mounting Nut	7	006-017-00	006-017-00	006-017-00	006-017-00
27	Brake Mounting Lockwasher	7	005-008-00	005-008-00	005-008-00	005-008-00
28	Return Spring	1	046-119-00	046-119-00	046-119-00	046-119-00

# Forward Self-Adjusting Hydraulic Brake





Hydraulic Brakes								
Size	Capacity	Part No. LH	Part No. RH					
121/4" x 33/8"	9K, 10K GD, #13G	K23-410-00	K23-411-00	Duo-Servo				
121/4" x 33/8"	9K, 10K GD, #13G	K23-412-00	K23-413-00	Uni-Servo				
121/4" x 33/8"	9K, 10K GD, #13G	K23-210-00	K23-211-00	Duo-Servo w/Park*				
121/4" x 4"	10K, #13D	K23-404-00	K23-405-00	Duo-Servo				
121/4" x 4"	10K, #13D	K23-414-00	K23-415-00	Uni-Servo				
121/4" x 4"	10K, #13D	K23-168-00	K23-169-00	Duo-Servo w/Park*				
121/4" x 4"	10K, #13D	K23-222-00	K23-223-00	Uni-Servo w/Park**				
121/4" x 5"	12K	K23-408-00	K23-409-00	Duo-Servo				
121/4" x 5"	12K	K23-416-00	K23-417-00	Uni-Servo				
121/4" x 5"	12K	K23-165-00	K23-166-00	Duo-Servo w/Park*				
121/4" x 5"	15K	K23-406-00	K23-407-00	Duo-Servo				
121/4" x 5"	15K	K23-162-00	K23-163-00	Duo-Servo w/Park*				

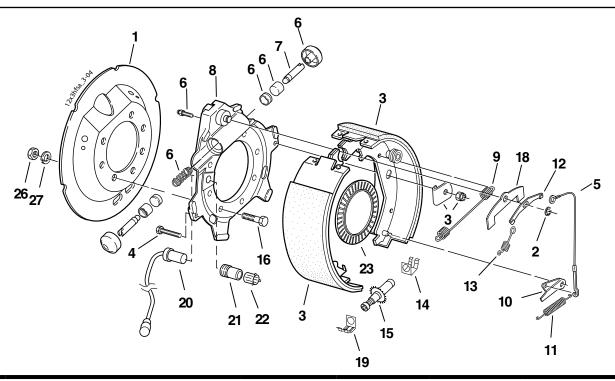
operating in reverse.

<sup>\*</sup> Duo-Servo brake with park is equipped with a rear self-adjusting feature.

<sup>\*\*</sup> Uni-Servo brake with park is equipped with a manual adjusting feature.

# **Hydraulic Brake Parts**

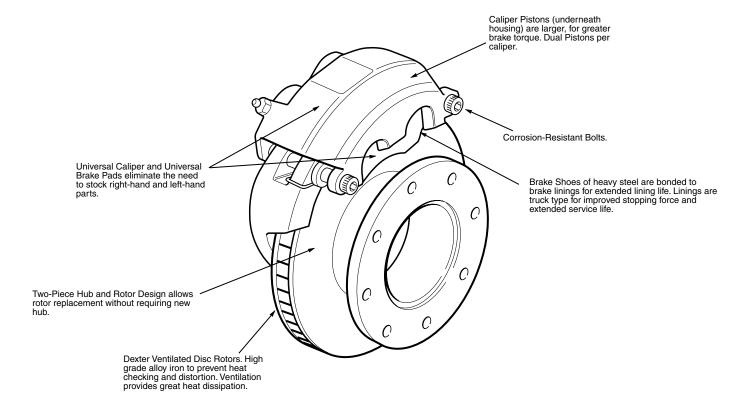




			12¼" x 3%" 9K, 10K GD, #13G		12¼" x 5" 12K	12¼" x 5" 15K
Item	Description	Qty Per Brake	Part No.	Part No.	Part No.	Part No.
1	Dust Cover	1	036-115-21	036-115-22	036-115-23	036-115-23
2	Retainer	1	069-053-00	069-053-00	069-053-00	069-053-00
3	LH Shoe & Lining Kit Contains: LH Primary	1	K71-165-00 040-199-01	K71-167-00 040-197-01	K71-169-00 040-195-01	K71-169-00 040-195-01
	LH Secondary	1	040-199-02	040-197-02	040-195-02	040-195-02
	Hold Down Washer Hold Down Locknut	2 2	005-107-00 006-086-00	005-107-00 006-086-00	005-107-00 006-086-00	005-107-00 006-086-00
3	RH Shoe & Lining Kit Contains:	1	K71-166-00	K71-168-00	K71-170-00	K71-170-00
O	RH Primary	1	040-200-01	040-198-01	040-196-01	040-196-01
	RH Secondary	1	040-200-02	040-198-02	040-196-02	040-196-02
	Hold Down Washer Hold Down Locknut	2 2	005-107-00 006-086-00	005-107-00 006-086-00	005-107-00 006-086-00	005-107-00 006-086-00
4	Show Hold Down Screw	2	007-113-00	007-113-00	007-113-00	007-113-00
5	Adjuster Cable	1	071-462-00	071-462-00	071-462-00	071-462-00
6	Wheel Cylinder Kit Contains:	1	K71-081-00	K71-081-00	K71-081-00	K71-082-00
U	Cylinder Spring	1	046-128-00	046-128-00	046-128-00	046-129-00
	Cylinder Boot	2	054-032-00	054-032-00	054-032-00	054-032-00
	Cylinder Piston	2	054-038-00	054-038-00	054-038-00	054-030-00
	Cylinder Cup Bleeder Screw	2 1	054-086-00 054-035-00	054-086-00 054-035-00	054-086-00 054-035-00	054-087-00 054-035-00
7	Cylinder Push Rod	2	054-033-00	054-033-00	054-033-00	054-033-00
8	Spider Assembly	1	036-063-06	036-063-06	036-063-06	036-063-04
9	Retractor Spring	1	046-087-00	046-087-00	046-087-00	046-087-00
10	LH Adjuster Lever	1	071-464-00	071-464-00	071-464-00	071-464-00
	RH Adjuster Lever	1	071-463-00	071-463-00	071-463-00	071-463-00
11	LH Adjuster Lever Spring (blue)	1	046-135-00	046-135-00	046-135-00	046-135-00
12	RH Adjuster Lever Spring (black)  Cable Attachment Bracket FSA	<u>1</u>	046-134-00 071-456-00	046-134-00	046-134-00 071-456-00	046-134-00
13	Extension Spring	1	046-131-01	071-456-00 046-131-01	071-456-00	071-456-00 046-131-01
14	Adjuster Clip (barrel end)	1	046-131-01	046-131-01	046-131-01	046-131-01
15	LH Adjuster Assembly	1	048-019-00	048-019-00	048-019-00	048-019-00
15	RH Adjuster Assembly	i	048-020-00	048-020-00	048-020-00	048-020-00
16	Brake Mounting Bolt	7	007-116-00	007-116-00	007-116-00	007-116-00
18	Piston Stop	1	034-062-00	034-062-00	034-062-00	034-062-00
19	Adjuster Clip (thread end)	1	046-132-00	046-132-00	046-132-00	046-132-00
26	Brake Mounting Nut	7	006-017-00	006-017-00	006-017-00	006-017-00
27	Lockwasher	7	005-008-00	005-008-00	005-008-00	005-008-00
Optiona	ABS Parts:					
20	ABS Sensor (straight)	1	097-004-00	097-004-00	097-004-00	097-004-00
21	ABS Sensor Mounting Block	1	024-204-00	024-204-00	024-204-00	024-204-00
22	ABS Sensor Retaining Clip	1	097-002-00	097-002-00	097-002-00	097-002-00
23	ABS Tone Ring in Drum	1	024-203-00	024-203-00	024-203-00	024-203-00

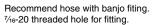
# #13G and #13D Torflex® Hydraulic Disc Brake



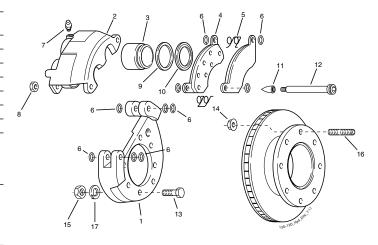


# **Torflex® Hydraulic Disc Brake Parts**

Item	Description	Qty/Brake	#13G, #13D
1	Anchor Yoke Assembly (includes 6 of item #6)	1	090-002-02
2	Caliper Assembly (includes items #6, 3, 9, 10)	1	089-002-02
3	Caliper Piston	2	054-066-00
12	Shoulder Screw % x 5	2	007-186-00
13	Hex Screw 7/16-20 x 1.75	7	007-116-00
14	Flange Nut	8	006-046-00
15	Hex Nut 7/16-20	7	006-017-00
16	Rotor Mounting Stud	8	025-014-00
17	Lock Washer	7	005-008-00
Calipe	r Repair Kit Contains:	1	K71-181-00
6	"O" Ring	4	010-062-00
7	Bleeder Screw	1	054-069-00
9	Caliper Seal	2	054-067-00
10	Dust Boot	2	054-068-00
Disc E	Brake Replacement Pad Kit Contains:	1	K71-180-00
4	Brake Pad	4	091-003-00
5	Anti-Rattle Spring	4	046-105-00
6	"O" Ring	20	010-062-00
8	Hex Locknut	4	006-125-00
11	Installation Tool	1	071-182-00

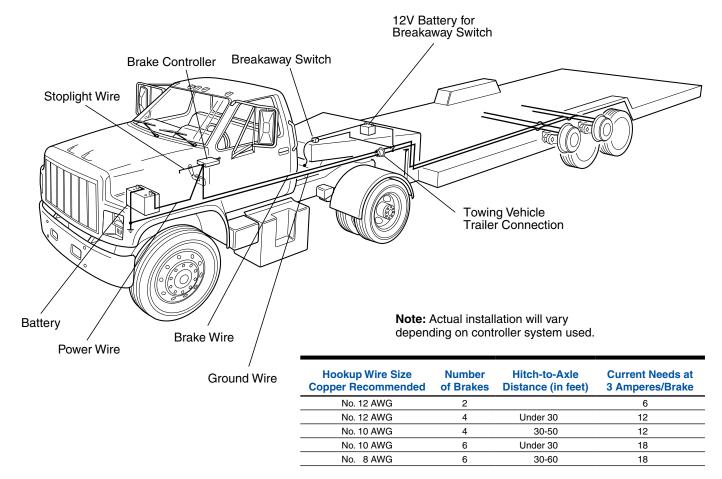


ABS not available on #13G or #13D.

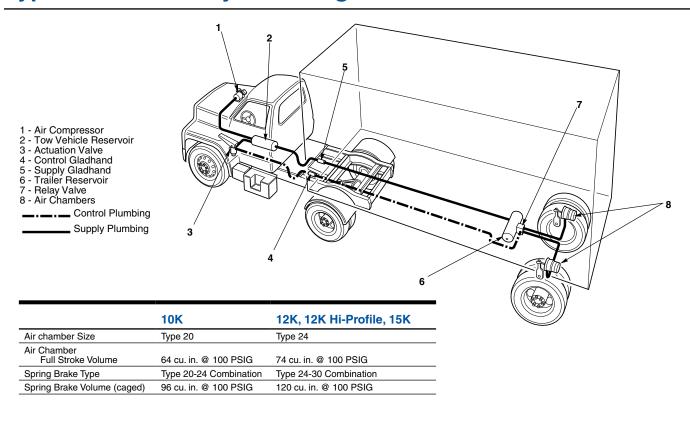


# **Typical Electric Brake Wiring Diagram**

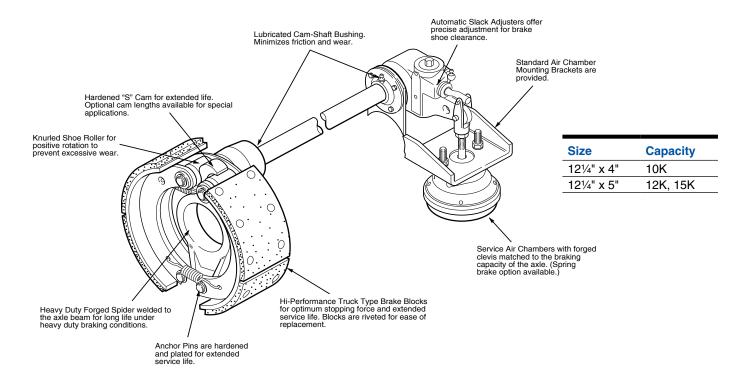




# **Typical Air Brake System Diagram**



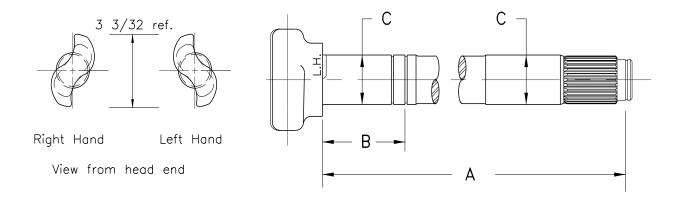




# Small "S" Head Hi-Rise 28 Spline

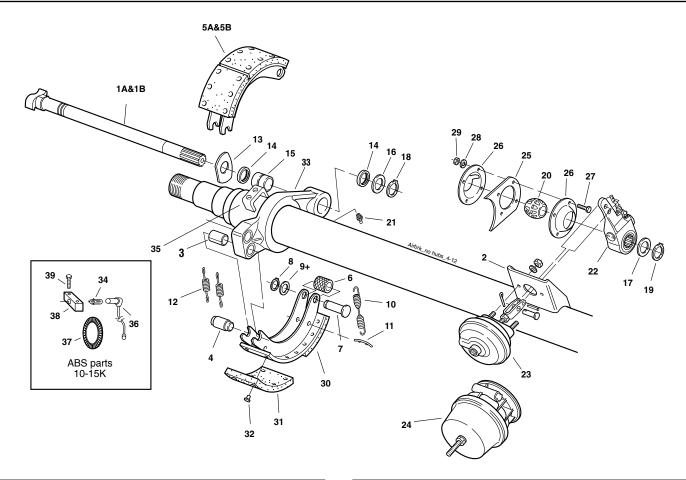
Par	t No.	Α	В	С	
LH	RH				
034-188-00	034-189-00	21.125	2.219	For 1.50 dia. shaft	+
034-188-01	034-189-01	16.375	2.219	For 1.50 dia. shaft	+
034-188-03	034-189-03	22.312	2.219	For 1.50 dia. shaft	+
034-188-04	034-189-04	20.312	2.219	For 1.50 dia. shaft	
034-188-05	034-189-05	23.375	2.219	For 1.50 dia. shaft	
034-188-06	034-189-06	30.000	2.219	For 1.50 dia. shaft	
034-188-07	034-189-07	29.000	2.219	For 1.50 dia. shaft	
034-188-08	034-189-08	19.500	2.219	For 1.50 dia. shaft	
034-188-09	034-189-09	26.500	2.219	For 1.50 dia. shaft	
034-188-10	034-189-10	7.437	4.980	For 1.50 dia. shaft	
034-188-11	034-189-11	24.625	2.219	For 1.50 dia. shaft	

<sup>+</sup> No extra charge for these lenghts.



# Air Brake Parts-"PQ" Style





Item	Description	Qty Per Brake	12¼" x 4" 10K Part No.	12¼" x 5" 12K, 15K Part No.
1A	Camshaft LH*	1	034-188-xx	034-188-xx
1B	Camshaft RH*	1	034-189-xx	034-189-xx
2	Air Chamber Bracket	1	034-048-00	034-048-00
5	Shoe & Lining Assembly	2	040-321-01	040-322-01
5A	Shoe & Roller Assembly RH	1	040-321-03	040-322-03
5B	Shoe & Roller Assembly LH	1	040-321-02	040-322-02
Camsh 13 14	aft Repair Kit Contains: "D" Washer, Camshaft Grease Seal	1 1 2	K71-101-00 005-074-00 010-052-00	K71-101-00 005-074-00 010-052-00
15	Camshaft Bushing	1	014-056-00	014-056-00
16	Washer-Camshaft Spider End	1	005-075-00	005-075-00
17	Camshaft Washer-28 Spline	1	005-134-00	005-134-00
18	Retainer-Camshaf	1	069-020-00	069-020-00
19	Retainer-Camshaft End	1	069-078-00	069-078-00
20	Camshaft Support Bushing	1	014-058-00	014-058-00
21	Grease Fitting	1	061-006-00	061-006-00
ns	Instruction Sheet	1	059-663-00	059-663-00
22	Automatic Slack Adjuster-28 Spline	1	055-040-99	055-040-99
22	Manual Slack Adjuster - 28 Spline	1	055-039-00	055-039-00
23	Air Chamber w/Hardware	1	034-260-00	034-059-00
24	Air Chamber w/Spring Brake	1	034-261-00	034-060-00
25	Plate - Camshaft Support Bracket	1	034-031-00	034-031-00
26	Plate, Bushing Retainer	2	034-032-00	034-032-00
27	Bolt, Retainer Plate	4	007-139-00	007-139-00
28	Lock Washer	4	005-079-00	005-079-00
29	Nut	4	006-099-00	006-099-00
	Brake Spider	1	036-113-02	036-113-02

* For camshaft	with part	no. xx.	see p	age 21.

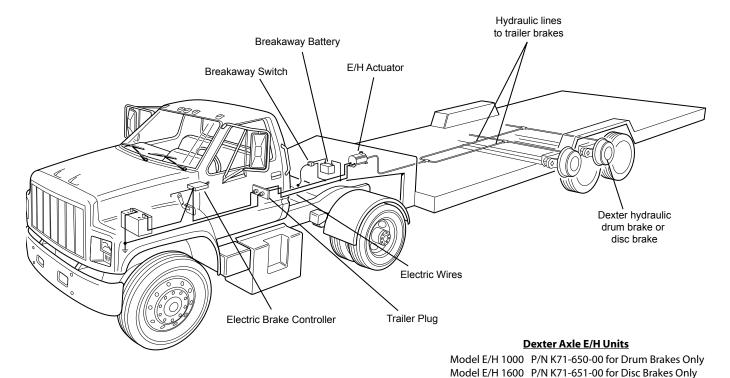
Item	Description	Qty Per Brake	12¼" x 4" 10K Part No.	12¼" x 5" 12K, 15K Part No.
Brake	Shoe Repair Kit Contains:	1	K71-460-00	K71-460-00
3	Bushing-Spider Anchor Pin	2	014-068-00	014-068-00
4	Anchor Pin	2	056-017-00	056-017-00
6	Roller	1	014-057-00	014-057-00
7	Roller Pin	2	056-010-00	056-010-00
8	Roller Pin Retainer	2	069-018-00	069-018-00
9	Roller Pin Spacer	2	005-076-00+	not used
10	Retractor Spring	1	046-092-00	046-092-00
11	Retainer Pin	2	056-018-00	056-018-00
12	Shoe Keeper Spring	2	046-097-00	046-097-00
ns	Instruction Sheet	1	059-553-00	059-553-00
Brake	Block Kit Contains:	1	K71-102-00	K71-152-00
31	Brake Block Anchor	2	041-052-01	041-053-01
30	Brake Block Cam	2	041-052-02	041-053-02
32	Rivet	24	022-018-00	022-048-00
ABS C	omponents:			
34	ABS Sensor Retaining Clip	1	097-002-00	097-002-00
35	ABS Lower Sensor Mounting Block	1	024-101-00	024-101-00
36	ABS Sensor 90°	1	097-003-00	097-003-00
37	ABS Tone Ring in Drum	1	024-203-00	024-203-00
38	ABS Upper Sensor Mounting Block	1	024-101-01	024-101-01
39	Mounting Screw Upper Block	2	007-237-00	007-237-00

ns - not shown

<sup>+ 005-076-00</sup> is required for 10K shoes with 14" shoe web thickness. Not required for 5%e" shoe web thickness. Used only on 12½" x 4" shoes with 14" webs.

# Typical Electric-Hydraulic Brake System Diagram





# model E/M 1000 1/M to 1 00 to 1 Disc Dianes only

### **Hydraulic System Installation Suggestions**

- Use ¾6" steel tubing having 2000 PSI working pressure rating for all hardline connections between the actuator and take-off to axle. All tubing must have double flare connection at joints.
- 2. Anchor hydraulic tubing securely to frame and axle.
- 3. Use inverted flare fittings having 82° included angle.
- Use D.O.T. high pressure hydraulic hose for flex connection(s) (frame to axle).

**WARNING:** It is the brake system installer's responsibility to insure compatibility between towing vehicles and trailer actuation systems. Various combinations of Air/Hydraulic, E/H, or Vacuum/Hydraulic and tow vehicle systems can allow normal working pressure to exceed 1000 PSI on drum brakes. Pressures in excess of 1000 PSI on drum brakes increase lining wear and can lead to component failure. Make certain your system has the correct peak pressure to activate brakes properly.

Axle Capacity	Maximum Operating Pressure (PSI)	Total Fluid Displacement Required per Axle
9K, 10K, 12K, #13D, #13G Drum Brakes 11/4" Diameter Cylinder*	1000	1.30 cu. in.
10K, 12K, #13D Disc Brakes 2½" Diameter Piston (Quantity 2)**	1600	.80 cu. in
15K Drum Brakes 1%" Diameter cylinder*	1000	1.50 cu. in.

 $<sup>^{\</sup>star}\,$  Use %-24 flare nut fitting on  $3\!\!\!/ 16\!\!\!^{\circ}$  tube or hose to connect to back of brake.

<sup>\*\*</sup> Use 1/16-20 straight thread inlet to connect to brake.

# **Wheels and Tires**



- Dexter 9K-12K hubs are designed to accept hub-piloted single or dual wheels that have an 8 on 6.50" bolt circle and a 4.75" bore.
- Single wheels should have a wheel offset between ½" outset and ¾6" inset for maximum bearing life.
- The Dexter 15K hub is designed to accept hub-piloted dual wheels that have an 8 on 275mm bolt circle and a 221mm bore.

Wheel Dia.	Rim Width Contour	Tire Size Description	SLR	Tire Radius	Width	Capacity Single/Dual	PSI Single/Dual
16.5	6.75	8.00R16.5LT, F	13.20	14.25	9.10	2590/2280	95
16.5	6.75	8.75R16.5LT, E	13.80	14.80	10.00	2680/2360	80
16.5	6.75	8.75R16.5LT, F	13.80	14.80	10.00	2980/2620	95
16.5	6.75	9.5R16.5LT, E	14.30	15.40	10.70	3170/2790	80
16	6.00K	LT235/85R16, D	14.30	15.40	10.30	2623/2381	65
16	6.00K	LT235/85R16, E	14.30	15.40	10.30	3042/2778	80
16	6.00K	LT235/85R16, G	14.30	15.40	10.20	3750/3415	110
17.5	6.75HC	11R17.5HC, G	16.90	18.15	11.80	5050/4430	105/95
17.5	8.25HC	245/70R17.5HC, H	14.20	15.50	9.70	6005/5675	125
17.5	6.75HC	215/75R17.5HC, H	14.00	15.30	9.30	4805/4540	125
22.5	7.5	10R22.5, G	18.80	20.20	11.00	5680/5250	115
14.5	7.00MH	9-14.5LT, F	13.30	14.68	10.10	3230/2840	100
14.5	7.00MH	9-14.5LT, E	13.30	14.68	10.10	2940/2590	85

# **Axle Overhang Per Side**

For Dua	al Wheel Applic	ations	For Sing	For Single Wheel Applications			
Axle Model	Min.	Max.	<b>Axle Model</b>	Min.	Max.		
D90	13.00	15.50	D90	9.66	15.50		
D100GD	13.00	15.50	D100GD	11.75	15.50		
D100HD	13.00	15.50	D100HD	12.69	15.19		
D120 Lo Profile	16.75	20.50	D120 Lo Profile	16.37	20.12		
D120 Hi Profile	13.25	20.20	D120 Hi Profile	12.94	20.19		
D150	14.50	16.50	D150	14.06	16.06		

To determine frame height, ground clearance, recommended fender height, and center of tire in reference to the frame based on your axle specifications, contact your local Dexter sales representative or Dexter distributor to run ProSpec™.

# **Recommended Oil Lubrication Specification**



Use: Axle hubs with tapered roller bearing

Service Designation: API-GL-5

Viscosity: SAE 80W-90

Pour Point: -18°C (0°F) Maximum

Additives: Corrosion and oxidation inhibitors, foam inhibitors, EP additives

Compatability: Must be compatable with nitrile and neoprene seals and polycarbonate

plastic oil caps

### Approved Sources:

Company	Product Description
Ashland Oil	Valvoline Dura Blend
Ashland Oil	Valvoline Power Lube
CITGO Petroleum Company	CITGO Premium Gear Oil MP
CITGO Petroleum Company	Mystik JT-7
CITGO Petroleum Company	Mystik Power Lube
Exxon Company U.S.A.	Gear Oil GX 80W-90
Kendall Refining Company	Kendall NS-MP Hypoid Gear Lube
Lubriplate Division / Fiske Brothers Refining	Lubriplate APG 90
Mobil Oil Corporation	Mobilube SHC
Mobil Oil Corporation	Mobil 1 Synthetic Gear Lube
Phillips 66 Petroleum	Superior Multi-Purpose Gear Oil
Phillips 66 Petroleum	Philguard Gear Oil
Phillips 66 Petroleum	Philsyn Gear Oil
Pennzoil Products Company	Gear Plus 80W-90 GL-5
Pennzoil Products Company	Gear Plus Super 75W-90
Pennzoil Products Company	Gear Plus Super EW 80W-90
Pennzoil Products Company	Multi-Purpose 4092 Gear Lube
Oil Center Research	Liquid-O-Ring 750 GX
Sun Refining and Marketing Company	Sonoco Ultra
Sun Refining and Marketing Company	Sonoco Dura Gear
Shell Oil Company	Spirax A
Shell Oil Company	Spirax G
Shell Oil Company	Spirax HD
Shell Oil Company	Spirax S
Texaco Oil Company	Multigear EP
Texaco Oil Company	Multigear SS
Troco Division / Royal Manufacturing	Multigear Select Gear Oil
Union Oil Company	Unocal MP Gear Lube
Union Oil Company	76 Triton Syn Lube EP

# **Bearing Adjustment**

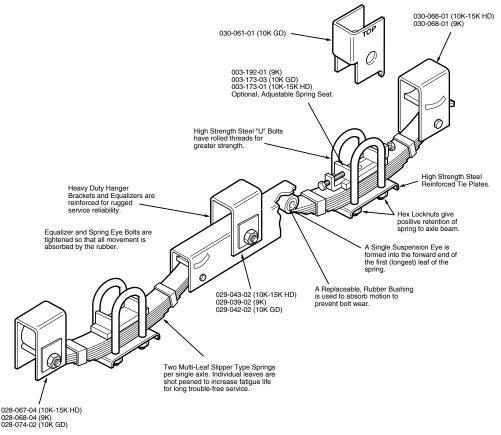
### 9K & 10K General Duty, 10K-15K Heavy Duty Axles:

Correct adjustment for all bearings is .001 to .010 end play.

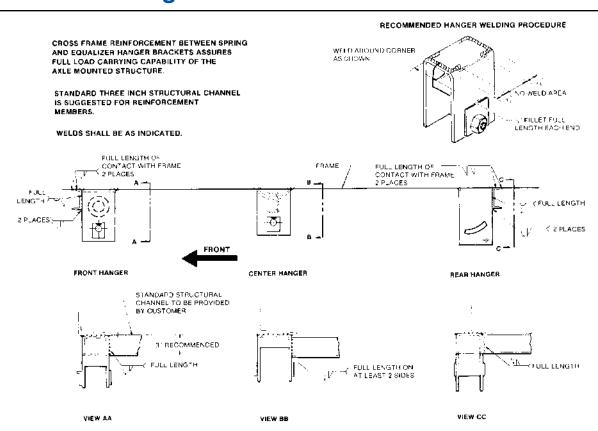
- 1. Rotate hub assembly slowly while tightening the inner lock nut to 100 lb-ft. to seat the bearings.
- 2. Loosen the inner lock nut to remove pre-load torque. Do not rotate the hub.
- 3. Finger tighten the inner lock nut and snug.
- 4. Back inner lock nut out 1/4 to 3/8 turn.
- Install tang washer and outer lock nut. Bend two tangs over inner lock nut. Torque outer lock nut to 100-150 Ft. Lbs., insuring that the inner lock nut does not turn. Bend 2 tangs over flats on outer lock nut to secure.

# **Dexter Axle Suspension System**



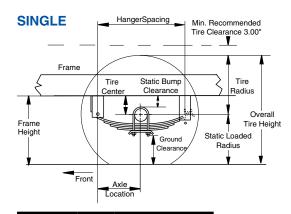


# **Cross Frame Hanger Reinforcement**



# **Suspension Dimensions-Kits for 2" Wide Springs**





# Front Hanger Spacing Frame Static Bump Clearance Ground Clearance Axle Location Frame Axle Location Front Axle Spacing Min. Recommended Tire Clearance 3.00" Min. Recommended Tire Clearance 3.00" Min. Recommended Tire Clearance 3.00" Axle Spacing Min. Recommended Tire Clearance 3.00" Axle Spacing

# 9K Single Axle HAP-105-00

Part No.	Qty	Description
028-068-04	2	Front Hanger
030-068-01	2	Rear Hanger
007-181-00	2	Spring Eye Bolt
007-007-00	2	Keeper Bolt
006-038-00	2	Locknut
006-011-00	2	Locknut
059-203-00	1	Instruction Sheet

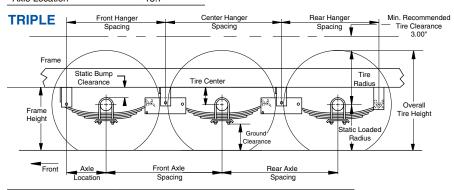
# 9K Tandem Axle

### HAP-205-01 HAP-205-02 HAP-205-03

Front Hanger Spacing	32.4	34.6	37.7
Rear Hanger Spacing	32.9	35.0	38.1
Static Bump Clearance	2.3	2.3	2.3
Tire Center	4.9	4.9	4.9
Axle Location	13.7	13.7	13.7
Front Axle Spacing	38.0	42.3	48.5

### 9K Single Axle HAP-105-00

Front Hanger Spacing	26.9	
Static Bump Clearance	2.6	
Tire Center	5.2	
Ayle Location	13.7	



### 9K 38" Multi-Axle Conversion Kit HAP-205-01

Part No.	Qty	Description
029-039-04	2	Center Hanger
013-117-03	2	Equalizer
007-181-00	2	Spring Eye Bolt
007-007-00	2	Keeper Bolt
007-182-00	2	Equalizer Bolt
006-038-00	2	Locknut
006-011-00	2	Locknut
006-112-00	2	Locknut
059-203-00	1	Instruction Sheet

### 9K 38" Triple Axle HAP-205-01 HAP-205-02 HAP-205-03

Front Hanger Spacing	32.4	34.6	37.7
Center Hanger Spacing	38.0	42.3	48.5
Rear Hanger Spacing	32.9	35.0	38.1
Static Bump Clearance	2.3	2.3	2.3
Tire Center	4.9	4.9	4.9
Axle Location	13.7	13.7	13.7
Front Axle Spacing	38.0	42.3	48.5
Rear Axle Spacing	38.0	42.3	48.5

### 9K 42.25" Multi-Axle Conversion Kit HAP-205-02

Part No.	Qty	Description
029-039-04	2	Center Hanger
013-118-03	2	Equalizer
007-181-00	2	Spring Eye Bolt
007-007-00	2	Keeper Bolt
007-182-00	2	Equalizer Bolt
006-038-00	2	Locknut
006-011-00	2	Locknut
006-112-00	2	Locknut
059-203-00	1	Instruction Sheet

### **9K Axle Assemblies**

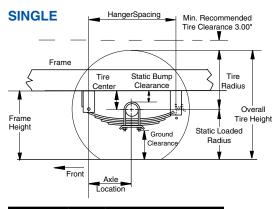
	38"	42.25"	48.50"
	For single axle asser	mblies use (1) HAF	P-105-00
Tandem	(1) HAP-105-00	(1) HAP-105-00	(1) HAP-105-00
	(1) HAP-205-01	(1) HAP-205-02	(1) HAP-205-03
Triple	(1) HAP-105-00	(1) HAP-105-00	(1) HAP-105-00
	(2) HAP-205-01	(2) HAP-205-02	(2) HAP-205-03

### 9K 48.5" Multi-Axle Conversion Kit HAP-205-03

Part No.	Qty	Description
029-039-04	2	Center Hanger
013-119-03	2	Equalizer
007-181-00	2	Spring Eye Bolt
007-007-00	2	Keeper Bolt
007-182-00	2	Equalizer Bolt
006-038-00	2	Locknut
006-011-00	2	Locknut
006-112-00	2	Locknut
059-203-00	1	Instruction Sheet

# Suspension Dimensions – Kits for 2½" Wide Springs ¾" Spring Eye Bolts



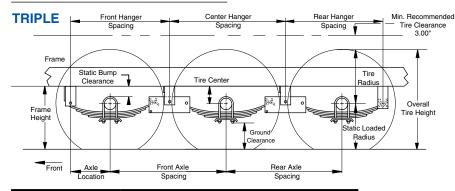


# 10K GD Single Axle HAP-158-00

Part No.	Qty	Description
028-074-02	2	Hanger
030-061-01	2	Rear Hanger
007-264-00	2	Spring Eye Bolt
006-113-00	2	Locknut
059-203-00	1	Instruction Sheet

### **10K GD Single Axle HAP-158-00**

Front Hanger Spacing	27.4	
Static Bump Clearance	1.9	
Tire Center	5.0	
Axle Location	14.0	



# 10K GD Triple Axle

### HAP-258-01 HAP-258-02 HAP-258-03

Front Hanger Spacing	33.0	35.1	38.3
Center Hanger Spacing	38.0	42.3	48.5
Rear Hanger Spacing	32.4	34.6	37.7
Static Bump Clearance	1.7	1.7	1.7
Tire Center	4.8	4.8	4.8
Axle Location	14.0	14.0	14.0
Front Axle Spacing	38.0	42.3	48.5
Rear Axle Spacing	38.0	42.3	48.5

### **10K GD Axle Assemblies**

	38"	42.25"	48.50"
	For single axle asse	mblies use (1) HAF	P-158-00
Tandem	(1) HAP-158-00	(1) HAP-158-00	(1) HAP-158-00
	(1) HAP-258-01	(1) HAP-258-02	(1) HAP-258-03
Triple	(1) HAP-158-00	(1) HAP-158-00	(1) HAP-158-00
	(2) HAP-258-01	(2) HAP-258-02	(2) HAP-258-03

All dimensions are for underslung spring orientation only.

# Front Hanger Spacing Min. Recommended Tire Clearance 3.00\* Frame Static Bump Clearance Tire Center Radius Frame Static Daded Radius Frame Axle Spacing Spac

### 10K GD Tandem Axle HAP-258-01 HAP-258-02 HAP-258-03

Front Hanger Spacing	33.0	35.1	38.3
Rear Hanger Spacing	32.4	34.6	37.7
Static Bump Clearance	1.7	1.7	1.7
Tire Center	4.8	4.8	4.8
Axle Location	14.0	14.0	14.0
Front Axle Spacing	38.0	42.3	48.5

### 10K GD 38" Multi-Axle Conversion Kit HAP-258-01

Part No.	Qty	Description
	ω.,	•
006-112-00	2	Locknut
006-113-00	2	Locknut
007-264-00	2	Spring Eye Bolt
007-169-00	2	Equalizer Bolt
013-139-03	2	Equalizer
029-042-02	2	Center Hanger
059-203-00	1	Instruction Sheet

# 10K GD 42.25" Multi-Axle Conversion Kit HAP-258-02

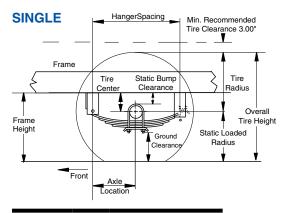
Part No.	Qty	Description
006-112-00	2	Locknut
006-113-00	2	Locknut
007-264-00	2	Spring Eye Bolt
007-169-00	2	Equalizer Bolt
013-140-03	2	Equalizer
029-042-02	2	Center Hanger
059-203-00	1	Instruction Sheet

# 10K GD 48.5" Multi-Axle Conversion Kit HAP-258-03

Part No.	Qty	Description
006-112-00	2	Locknut
006-113-00	2	Locknut
007-264-00	2	Spring Eye Bolt
007-169-00	2	Equalizer Bolt
013-141-03	2	Equalizer
029-042-02	2	Center Hanger
059-203-00	1	Instruction Sheet

# **Suspension Dimensions-Kits for 3" Wide Springs**





# Front Hanger Spacing Min. Recommended Tire Clearance 3.00° Frame Static Bump Clearance Tire Center Radius Overall Tire Height Static Loaded Radius Spacing Spacing Spacing Static Loaded Radius Spacing Spaci

# 10-15K Single Axle HAP-103-00

Part No.	Qty	Description
028-067-04	2	Front Hanger
030-066-01	2	Rear Hanger
007-169-00	2	Spring Eye Bolt
007-095-00	2	Keeper Bolt
006-046-00	2	Locknut
006-112-00	2	Locknut
059-203-00	1	Instruction Sheet

### 10-15K Tandem Axle HAP-203-01 HAP-203-02 HAP-203-03

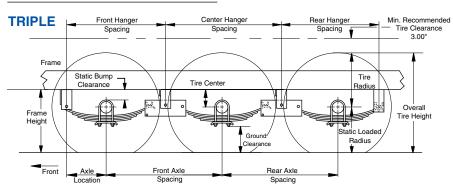
33.0	35.1	38.3
32.4	34.6	37.7
2.2	2.2	2.2
5.3	5.3	5.3
14.0	14.0	14.0
38.0	42.3	48.5
	32.4 2.2 5.3 14.0	32.4 34.6 2.2 2.2 5.3 5.3 14.0 14.0

### **10-15K Single Axle HAP-103-00**

Front Hanger Spacing	27.4	
Static Bump Clearance	2.9	
Tire Center	6.0	
Axle Location	14.0	

# 10-15K 38" Multi-Axle Conversion Kit HAP-203-01

Part No.	Qty	Description
029-043-02	2	Center Hanger
013-107-07	2	Equalizer
007-169-00	2	Spring Eye Bolt
007-095-00	2	Keeper Bolt
007-170-00	2	Equalizer Bolt
006-046-00	2	Locknut
006-072-00	2	Locknut
006-112-00	2	Locknut
059-203-00	1	Instruction Sheet



# 10-15K 42.25" Multi-Axle Conversion Kit HAP-203-02

Part No.	Qty	Description
029-043-02	2	Center Hanger
013-108-03	2	Equalizer
007-169-00	2	Spring Eye Bolt
007-095-00	2	Keeper Bolt
007-170-00	2	Equalizer Bolt
006-046-00	2	Locknut
006-072-00	2	Locknut
006-112-00	2	Locknut
059-203-00	1	Instruction Sheet

### 10-15K Triple Axle HAP-203-01 HAP-203-02 HAP-203-03

40 EO

33.0	35.1	38.3
38.0	42.3	48.5
32.4	34.6	37.7
2.0	2.0	2.0
5.1	5.1	5.1
14.0	14.0	14.0
38.0	42.3	48.5
38.0	42.3	48.5
	38.0 32.4 2.0 5.1 14.0 38.0	38.0 42.3 32.4 34.6 2.0 2.0 5.1 5.1 14.0 14.0 38.0 42.3

# 10-15K 48.5" Multi-Axle Conversion Kit HAP-203-03

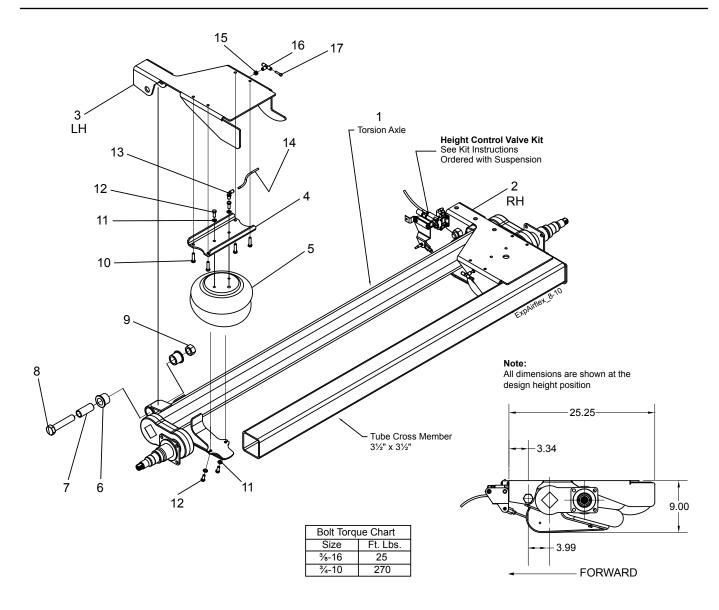
Part No.	Qty	Description		
029-043-02	2	Center Hanger		
013-109-03	2	Equalizer		
007-169-00	2	Spring Eye Bolt		
007-095-00	2	Keeper Bolt		
007-170-00	2	Equalizer Bolt		
006-046-00	2	Locknut		
006-072-00	2	Locknut		
006-112-00	2	Locknut		
059-203-00	1	Instruction Sheet		

### 10-15K Axle Assemblies

	38	42.25	48.50	
For single axle assemblies use (1) HAP-103-00				
Tandem	(1) HAP-103-00	(1) HAP-103-00	(1) HAP-103-00	
	(1) HAP-203-01	(1) HAP-203-02	(1) HAP-203-03	
Triple	(1) HAP-103-00	(1) HAP-103-00	(1) HAP-103-00	
	(2) HAP-203-01	(2) HAP-203-02	(2) HAP-203-03	

# AIRFLEX® for 10,000 Lb. Axles





AIRFLEX® Suspension Components 10,000#				
Item	Part No.	Qty/Axle	Description	
1	n/a	1	Torsion Axle with Suspension Brackets	
2	003-327-00	1	RH Frame Bracket	
3	003-326-00	1	LH Frame Bracket	
4	003-323-00	2	Channel, Air Spring Support	
5	W01-358-6947	2	Firestone Air Spring	
6	014-123-00	2	Pivot Bushing Kit	
7	014-127-00	2	Bushing Spacer/Liner	
8	n/a	2	3/4-10 UNC x 4.5" LG HHCS	
9	n/a	2	3/4-10 UNC Stover Lock Nut	
10	n/a	8	%-16 UNC x 1.5" LG HHCS	
11	n/a	8	% Regular Split Lock Washer	
12	n/a	8	%-16 UNC x 1" LG HHCS	
13	n/a	2	1/4 NPTM x 1/4 T 90° Elbow, Swivel	
14	n/a	2	1/4 x 6.25" LG Nylon Tube	
15	n/a	2	Grommet	
16	n/a	2	1/4 T Union Tee	
17	n/a	2	1/4 T Plug	

n/a - not available

# **Dexter Axle Limited Warranty**



### WHAT PRODUCTS ARE COVERED

All Dexter Axle Company ("Dexter Axle") trailer axles, suspensions, and brake control systems excluding Dexter 6000 series Manufactured Housing Axles.

### LIMITED 1 YEAR WARRANTY

As specified in Dexter Axle's current publication "Operation Maintenance Service Manual", grease and oil seals FOR ALL PRODUCTS have a <u>one (1) year</u> limited warranty from the date of first sale of the trailer incorporating such components. **Except as to grease and oil seals, the following four other warranties are available.** 

### LIMITED 2 YEAR WARRANTY

Dexter Axle warrants to the original purchaser that its axles, suspension systems, and E/H hydraulic brake actuators shall be free from defects in material and workmanship for a period of two (2) years from the date of first sale of the trailer incorporating such components.

Dexter Axle warrants to the original purchaser that its Genuine Replacement Parts shall be free from defects in material and workmanship for a period of two (2) years from the date parts were installed and serviced.

LIMITED 3 YEAR WARRANTY FOR PARTICIPATING OEMS Dexter Axle warrants to the original purchaser of a trailer equipped with axle models D90, D100GD, D100HD, D120, or D150 and installed with properly matched Genuine Dexter Hanger and Attaching Parts Kits (HAP Kits) or Dexter Heavy Duty Suspension System (HDSS), that this combination of components shall be free from defects in material and workmanship for a period of <a href="mailto:three">three</a> (3) <a href="mailto:years">years</a>. The warranty period shall begin from the date of the original purchase of the trailer.

### **LIMITED 5 YEAR WARRANTY**

Dexter Axle warrants to the original purchaser that its Nev-R-Lube® bearings and the suspension components only, of its Torflex® axles shall be free from defects in material and workmanship for a period of five (5) years from the date of first sale of the trailer incorporating such components.

### LIMITED 7 YEAR WARRANTY

Dexter Axle warrants to the original purchaser that its Predator Series® electric brake controllers shall be free from defects in material and workmanship for a period of <a href="mailto:seven(7) years">seven (7) years</a> from the date of purchase.

### **EXCLUSIVE REMEDY**

Dexter Axle will, at its option, repair or replace the affected components of any defective axle, repair or replace the entire defective axle, or refund the then-current list price of the axle. In all cases, a reasonable time period must be allowed for warranty repairs to be completed. Allowance will only be made for installation costs specifically approved by Dexter Axle.

### WHAT YOU MUST DO

In order to make a claim under these warranties:

- You must be the original purchaser of the vehicle in which the spring suspension axles or Torflex® axles were originally installed.
- You must promptly notify us within the warranty period of any defect, and provide us with the axle serial number and any substantiation which may include, but is not limited to, the return of part(s) that we may reasonably request.
- The axles or suspensions must have been installed and maintained in accordance with good industry practice and any specific Dexter Axle recommendations, including those specified in Dexter Axle's current publication "Operation Maintenance Service Manual."

### **EXCLUSIONS**

These warranties do not extend to or do not cover defects caused by:

- The connecting of brake wiring to the trailer wiring or trailer wiring to the towing vehicle wiring.
- 2. The attachment of the running gear to the frame.
- 3. Hub imbalance, or any damage caused thereby.
- 4. Parts not supplied by Dexter Axle.
- Any damage whatever caused by or related to any alteration of the axle including welding supplemental brackets to the axle.
- 6. Use of an axle on a unit other than the unit to which it was originally mounted.
- 7. Normal wear and tear.
- 8. Alignment.
- 9. Improper installation.
- Unreasonable use (including failure to provide reasonable and necessary maintenance <u>as specified in Dexter Axle's</u> <u>current publication "Operation Maintenance Service</u> <u>Manual" including required maintenance after "Prolonged Storage").</u>
- 11. Improper wheel nut torque.
- 12. Cosmetic finish or corrosion.

### **LIMITATIONS**

- In all cases, Dexter Axle reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the then-current list price of the defective axle (or, if the axle has been discontinued, of the most nearly comparable current product).
- Dexter Axle reserves the right to furnish a substitute or replacement component or product in the event an axle or any component of the axle is discontinued or is otherwise unavailable.
- 3. These warranties are nontransferable.

### <u>GENERA</u>

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXCEPT THAT OF TITLE, WHETHER WRITTEN, ORAL OR IMPLIED, IN FACT OR IN LAW (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE).

These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

DEXTER AXLE HEREBY EXCLUDES INCIDENTAL AND CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF TIME, INCONVENIENCE, LOSS OF USE, TOWING FEES, TELEPHONE CALLS OR COST OF MEALS, FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

Inquiries regarding these warranties should be sent to:

Dexter Axle Company P.O. Box 250 Elkhart, Indiana 46515

**Note:** Current publication "Operation Maintenance Service Manual" can be found at www.dexteraxle.com.

# **Dexter Axle Video Gallery**



In keeping with our continual commitment to industry safety and the development of innovative products, please feel free to view our ongoing video gallery at "www.dexteraxle.com/video\_gallery" or scan the following QR codes with your smart phone. We are confident these videos will help educate and promote the Dexter product line that you, as our customer, are investing in.



**Bearing Maintenance** 



Genuine Brakes



E/H Actuator Installation



E-Z Flex® Suspension



E-Z Lube® System



Genuine Replacement Parts



Leaf Spring Axles



Nev-R-Adjust® Brakes



Removable Spindle



Sway Control



Torflex® Suspension Axles

# **Notes**

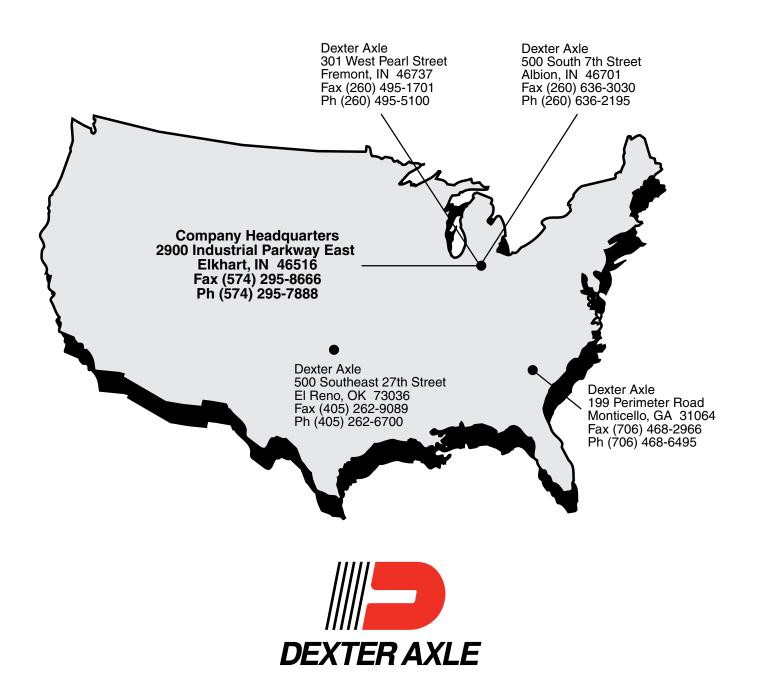


# **Notes**



Genuine Dexter axles and components are available nationwide from our plant locations listed below or through our network of distributors. Check our web site for the distributor nearest you.

# Visit us online at www.dexteraxle.com



### **GEARED FOR INNOVATION SINCE 1960**





### www.dexteraxle.com

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Front cover photo courtesy of Lehigh Career & Technical Institute

