Maintenance & Service

HUB INSPECTION AND REMOVAL

A. Removal of Hub

1. Remove wheel
2. Remove grease cap or bearing buddy
3. Remove cotter pin
4. Unscrew the spindle nut counter clockwise
5. Remove spindle washer
6. Remove hub from spindle

B. Seal Inspection and Replacement

1. Seals should be replaced each time the hub is removed.
2. Pry the seal out of the hub with a screwdriver.
3. Tap new seal into place.

C. Bearing Maintenance, Adjustments, and Replacement

1. Inspect for corrosion and wear.
2. If any rust or wear exists on the bearing then remove and replace.
3. If bearings are found to be in good condition, then cleaning and repacking the grease is all that is needed.
   Note: **Do not spin bearings with compressed air.**
   (See page A–27 for wheel bearing grease.)
4. Hand pack each bearing individually using a premium water resistant wheel bearing grease.
5. Reinstall the hub, reversing the procedure above using the bearing adjustment preocedures below.
6. If you have the Accu–Lube system remove the rubber plug and place grease gun (no air powered grease guns) onto the zerk. Pump in new grease until you see the old grease flowing back out the cap. Wipe off old grease with a towel. Be sure to re-install rubber plug.

D. Bearing Adjustment

1. **Recommended Setting –** The typical trailer hub uses a hardened washer and slotted hex nut for bearing adjustment. Hubs are usually set with a free-running clearance or endplay of 0.001" to 0.010". **The use of a dial indicator is the only satisfactory method of checking adjustment.**
2. **Feel and Drag Method –** Tighten slotted nut until hub drags slightly when rotated. (Rotating the hub while tightening the nut seats the bearing.)

   Loosen the slotted nut 1/6 turn (1 hex) to align nut slot with the cotter pin hole. Wheel should turn freely.

   Insert new cotter pin through nut and spindle. If necessary loosen, **never tighten,** nut to align slot with the hole in the spindle. Bend one leg of cotter pin over the end of the spindle and the other leg over the nut. Tap legs slightly to set. Cotter pin must be tight.
3. **Torque Wrench Method –** Make sure nut is loose.

   Tighten nut with torque wrench to an initial torque of 50 ft. lbs.

   Loosen nut from initial torque and finger tighten.

   Insert new cotter pin through nut and spindle. If necessary loosen, **never tighten,** nut to align slot with the hole in the spindle. Bend one leg of cotter pin over the end of the spindle and the other leg over the nut. Tap legs slightly to set. Cotter pin must be tight.
4. **Perform Dial Indicator Test –** Attach Dial Indicator block to the wheel.

   With both hands, push the wheel towards the trailer.

   Set the sensory tip of the dial indicator against the outer edge of the spindle.

   Set the dial indicator to zero.

   Grasp the tire at the top and bottom and gently pull out.

   Check the reading on the dial indicator for the amount of endplay present in the bearing. (0.001" to 0.010")

   Readjust the bearing if **required**.

MAINTENANCE SCHEDULE

Item	Function Required	3 Months or 3,000 Miles	6 Months or 6,000 Miles	12 Months or 12,000 Miles
Brakes	Test that they are operational	Before every use		
Brake Adjustment	Adjust to proper operating clearance	✓		
Brake Magnets	Inspect for wear and current draw		✓	
Brake Linings	Inspect for wear and contamination			✓
Brake Controller	Check for correct amperage and modulation		✓	
Brake Cylinders	Check for leaks, sticking			✓
Brake Lines	Inspect for cracks, leaks, kinks			✓
Trailer Brake Wiring	Inspect wiring for bare spots, fray, etc.			✓
Breakaway Systems	Check battery charge and switch operation	Before every use		
Hub/Drum	Check for abnormal wear or scoring			✓
Wheel Bearings & Cups	Inspect for corrosion or wear; clean and repack			✓
Seals	Inspect for leakage; replace if removed			✓
Springs	Inspect for wear, loss or arch			✓
Suspension Parts	Inspect for bending, loose fasteners, wear		✓	
Hangers	Inspect welds			✓
Wheel Nuts and Bolts	Tighten to specified torque values		✓	
Wheels	Inspect for cracks, dents, or distortion	✓		
Tire Inflation Pressure	Inflate tires to mfg's. specifications	Before every use		
Tire Condition	Inspect for cuts, wear, bulging, etc.	✓		

Ordering Axles

We have provided this information to make your job of selecting Quality Running Gear easier. If you have any questions or need further assistance call one of our trained sales people at any one of our convenient locations. When selecting an axle you will need to consider the following factors:

Gross Axle Weight Rating

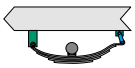
Gross Axle Weight Rating (GAWR) is a rating of the maximum weight allowed to be placed on the running rear assembly and is based on the combined individual capacities of all the running gear components. That is, the maximum capacity of the axles, suspension, tires and wheels. Keep in mind the GAWR can only be rated as high as the weakest of the running gear components. ***Example:*** *A GAWR of 5,920 lbs. is based on an axle capacity of 7,000 lbs. (3,500 x 2 ea.), a spring capacity of 7,000 lbs. (1,750 x 4 ea.), a wheel capacity of 7,280 lbs. (1,820 x 4 ea.) and a tire capacity of 5,920 lbs. (1,480 x 4 ea.).*

Gross Vehicle Weight Rating

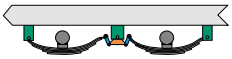
Gross Vehicle Weight Rating (GVWR) is a rating of the maximum Gross Vehicle Weight (GVW) that a trailer should legitimately weigh when fully loaded. GVWR is determined by a combination of the GAWR, coupler capacity and the frame design capacity. To figure the GVWR add 10% of the coupler capacity (25% for goosenecks) to the GAWR. Now, compare the resulting figure with the frame design capacity. The **lower** of the two figures would be your GVWR. ***Example 1:*** *A trailer with a GAWR of 5,920 lbs., a coupler rating of 7,000 lbs. and a frame design capacity of 7,000 lbs. could have a GVWR rating of 6,620 lbs.* ***Example 2:*** *A trailer with a GAWR of 5,920 lbs., a coupler rating of 7,000 lbs. and a frame design capacity of 6,500 lbs. could have a GVWR rating of 6,500 lbs.*

Number of Axles

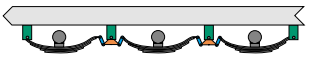
Based on GAWR determine whether you want a single, tandem, or a triple axle setup. Use this information to determine axle capacity requirements.



Single



Tandem

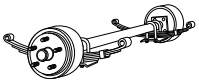


Triple

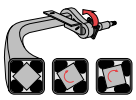
Axle Type

Decide on what type you will be using, tubular or torsion. Tubular axles are available in multiple material dimensions and require additional suspension components. "Equalizer" torsion axles have the suspension built into the axle. ***Note:*** *See section B for springs, u-bolts and hanger kits used on tubular axles.*

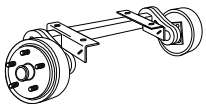
Axle Tube



Tubular Axle



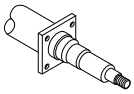
Torsion Tube



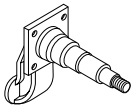
Torsion Axle

Spindle Configuration

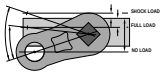
Trailer ride heights are affected by the spindle configuration. Tubular axles are available with straight or drop spindles."Equalizer" torsion axles use specific start angles on the trailing arms. ***Note:*** *See page A–11 for trailing arm starting angles and dimensions.*



Straight Spindle



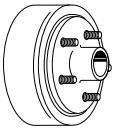
Drop Spindle



Trailing Arm

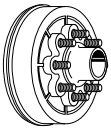
Bolt Pattern

The bolt pattern depends on the capacity of the axle. Yet the bolt pattern does not identify the axle capacity. It is however a factor. Multiple bolt pattern configurations are available for each axle group. Be aware that the tire and wheel capacity should match the axle capacity. ***Note:*** *See page K–1 for directions in measuring bolt patterns.*



5 Bolt

6 Bolt



8 Bolt

Ordering Axles

Brakes

Axles are available in both idler and braking configurations. Determine braking requirements based upon the number of axles, GVW and the applicable State and Federal laws. There are many options in the area of brakes; electric, hydraulic uniservo, hydraulic duoservo, hydraulic freebacking, hydraulic disc or air. ***Note:*** *If you have questions regarding braking requirements, contact the Department of Transportation or local authorities.*

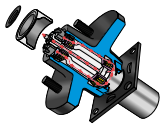
Electric

Hydraulic Drum

Hydraulic Disc

Lubrication

Standard lubrication for 2,000 to 7,000 lb. axles is grease. The "Accu-Lube" option and bearing protectors are available on most, as well as an oil bath option on some. 8,000 through 25,000 lb. axles are standard with 90-wt oil bath lube.



Accu-Lube Spindle Assy.

Bearing Protector

Other Options

Some other areas that might need consideration may be the axle tube or hub finish. Black paint is the standard finish with Galvanized tube, Hot Dip Galvanizing and Zinc plating are also available. V-Bend, camber and internally wired axle tube are a few of the popular options listed in the following reference chart.

Zinc Plated Hub

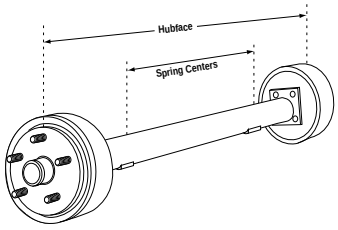
V-Bend

Axle Hub Face

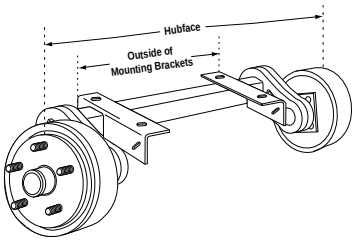
This is the industry standard for measuring axle length. It is taken from the flat surface on the hub, where the studs exit the casting, to the same surface on the opposite side of the axle. ***Caution!*** This is not to be confused with "Track" which is measured from center of tire to center of tire. ***Note:*** *See page A–9 for alternate methods of measuring hub face.*

Axle Attachment Configuration

On tubular axles this is referred to as "Spring Center." It is the measurement from the center of the spring pad to the center of the spring pad on the opposite side of the axle. The pads can be mounted on the top or bottom of the axle tube. On "Equalizer" torsion axles this is referred to as "Outside of Bracket." It is measured from the outside of the bracket to the outside of the bracket on the opposite side of the axle. The brackets can be specified for top mount or side mount and are available in standard or high mount versions. ***Note:*** *Consult page A–8 for minimum and maximum difference between hub face and axle attachment measurements.*



Tubular Axle



Torsion Axle

Axle Specifications & Options

Area	Available Options
Lubrication	Grease Lube
	Accu-Lube
	Bearing Protectors
	Oil Bath Lube
Studs	½" Zinc Studs
	½" X 2" Zinc Studs (standard with Disc Brakes)
	9/16" Studs
	⅝" Studs
	¾" Studs
	Swivel Flange Nuts
	Tension Ring with ⅝" Cone nuts
Bolt Circles	4 Bolt on 4" Circle
	4 Bolt on 4.25" Circle
	5 Bolt on 4.5" Circle with 5.75" Flange (standard 2K Idler)
	5 Bolt on 4.5" Circle with 6.25" Flange (standard 3.5K Idler)
	5 Bolt on 4.75" Circle
	5 Bolt on 5" Circle
	5 Bolt on 5.5" Circle
	6 Bolt on 5.5" Circle
	6 Bolt on 6" Circle (Idler only)
	8 Bolt on 6.5" Circle
	8 Bolt on 6.5" Circle, Hub piloted with 4.88" Pilot
	8 Bolt on 6.5" Circle, Hub piloted with 4.75" Pilot
	8 Bolt on 6.5" Circle,Stud piloted with 4.75" Pilot
Hubs	Zinc Plated Hubs
	Zinc Plated Hub and Drums
	Galvanized Hubs
Seals	Single Lip Seal
	Double Lip Seal (standard with Accu-Lube)
	Unitized Seal
	Stainless Steel Spindle Seal Sleeve
Brakes	Electric Brake
	Hydraulic Brake, Duo-Servo
	Hydraulic Brake, Uni-Servo
	Hydraulic Brake, Uni-Servo with parking feature
	Hydraulic Brake, Free Backing
	Hydraulic Brake, Uni-Servo Premier
	Hydraulic Brake, Uni-Servo Free Backing Premier
	Hydraulic Disc Brake
	Hydraulic Disc Brake, E-Coat
	Hydraulic Disc Brake, Bronze
	Air Brake

Axle Specifications & Options

	Tubular Axles										Torsion Axles				
	2K	3.5K	5.2K	6K	7K	8K	9K	10K	10H	12K	2K	3.5K	6K	7K	8K
	Std	Std	Std	Std	Std	X	X	X	X	X	Std	Std	Std	Std	X
	X	X	X	X	X	X					X	X	X	X	X
	X	X	X	X	X						X	X	X	X	X
				X	X	Std	Std	Std	Std	Std			X	X	Std
	Std	Std	Std	Std	Std						Std	Std	Std	Std	
		X	X	X	X						X	X	X	X	
				X	X	Std							X	X	Std
						X	Std	Std	Std	Std					X
									X	X					
							X	X	X	X					
							Std	Std	Std	X					
	X										X				
	X										X				
	X	X									X	X			
	X	X									X	X			
		X										X			
		X										X			
		X										X			
		X	Std	X								X	X		
			X	X	X								X	X	
				Std	Std	Std							Std	Std	Std
							Std	Std	Std	Std					
							X	X	X	X					
							X	X	X	X					
	X	X	X	X	X						X	X	X	X	
		X	X	X	X							X	X	X	
	X	X									X	X			
	Std	Std	Std	Std	Std						Std	Std	Std	Std	
	X	X	X	X	X	X					X	X	X	X	X
				X	X	Std	Std	Std	Std	Std			X	X	Std
		X	X	X	X							X	X	X	
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			X	X	X	X	X	X	X	X			X	X	X
	X	X	X	X	X						X	X	X	X	
		X	X	X	X							X	X	X	
		X	X	X	X							X	X	X	
		X	X	X	X							X	X	X	
		X	X	X	X	X			X	X		X	X	X	X
		X	X	X	X	X						X	X	X	X
		X	X									X			
									X	X		X			

Axle Specifications & Options

Area	Available Options
Brakes	Air Spring Brake
(continued)	Manual Slack Adjusters
	Automatic Slack Adjusters
	ABS Sensors (6K, 7K and 8K Disc only)
	Brake Flange on Idler Axle
	Pre-Wired Axle Tubing
	Brake Wire Protectors
	Long Magnet Lead Wires
Spindles	BT-8 Spindle
	BT-16 Spindle
	#84 Spindle
	#42 Spindle
	#99 Spindle
	#120 Spindle
	Straight Spindle
	4" Drop Spindle (2K with 2" x 2" Square only)
	3" Drop Spindle (2" x 2" Square & 2" x 3" Rec. tube only)
	2" Drop Spindle (2" x 2" Square & 2" x 3" Rec. tube only)
Axle Materials	Cambered Axle Tubing
	V-Bend Tubing
	Galvanized Axle Tubing (Cold zinc spray weld)
	Galvanized Axle Beam
	1.75" X .1875" Round Tube
	2.375" X .1875" Round Tube
	3" X .1875" Round Tube
	3" X .25" Round Tube
	3.5" X .25" Round Tube
	4" X .25" Round Tube
	5" X .25" Round Tube
	5.125" X .3125" Round Tube
	2.173" X .149" Round Corner Square Tube
	2.625" X .187" Round Corner Square Tube
	3.031" X .203" Round Corner Square Tube
	3.50" X .25" Round Corner Square Tube
	3.875" X .25" Round Corner Square Tube
	2" X .25" Round Corner Square Tube
	2.5" X .25" Round Corner Square Tube
	2" X 3" X .25" Round Corner Rectangular Tube
Attachments	Adjustable Spring Seat
	High Mount Brackets +.5"
	High Mount Brackets +2"
	High Mount Brackets +3"

Axle Specifications & Options

	Tubular Axles										Torsion Axles				
	2K	3.5K	5.2K	6K	7K	8K	9K	10K	10H	12K	2K	3.5K	6K	7K	8K
									X	X					
									X	X					
									X	X					
				X	X	X			X	X					
	X	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
	X	X	X	X	X	X					X	X	X	X	X
		X	X	X	X							X	X	X	
		X	X	X	X							X	X	X	
	X														
	Std										Std				
		Std										Std			
			Std	Std	Std	Std							Std	Std	Std
							Std	Std							
									Std	Std					
	Std	X	X	X	X	X	Std		Std	Std					
		X	X	X	X	X									
	X	X	X												
	X	X	X												
	X	X	X	X	X	X					Std	Std	Std	Std	Std
											X	X	X		
	X	X	X												
	X	X	X	X	X	X					X	X	X	X	X
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											X	X			
											X	X			

Ordering 2-8K Axles

The part numbers we have selected for our axles have specific numbers assigned to correspond to the type of beam, axle capacity, axle length, spring center or outside bracket, bolt pattern and type of hub. Each part number is divided into specific digit groups with certain characters in each digit. Each digit group has a specific significance. The basic part number system is outlined in the example below.

TS 35 885 705 545 H B C

Axle Beam Type — TS

TS = Tubular straight
TD = Tubular 4" drop
SS = 2" Square straight
SD = 2" Square 4" drop
5S = 2.5" Square straight
5D = 2.5" Square 4" drop
RS = Rectangular straight
RD = Rectangular 4" drop
EA = Equalizer, 22.5° up
EB = Equalizer, 10° up
EC = Equalizer, 0°
ED = Equalizer, 10° down
EE = Equalizer, 22.5° down
EF = Equalizer, 45° down

Axle Capacity — 35

20 = 2,000 lbs.
35 = 3,500 lbs.
52 = 5,200 lbs.
60 = 6,000 lbs.
70 = 7,000 lbs.
80 = 8,000 lbs.

Note: Equalizer axles can be de-rated by 100 lb. increments. (*Example:* EA29 is a de-rated EA35) *See page A–10 for capacity range.*

Hubface Dimension — 885

880 = 88" Hubface
882 = 88.25" Hubface
885 = 88.5" Hubface
888 = 88.75" Hubface
025 = 102.5" Hubface
160 = 116" Hubface or 16" Hubface

Note: Hubface tolerance + or – 0.25".

Mounting Dimension — 705

700 = 70" spring center or outside of bracket
702 = 70.25" spring center or outside of bracket
705 = 70.5" spring center or outside of bracket
708 = 70.75" spring center or outside of bracket
000 = Pads loose

Note: [1]See page A–8 for minimum and maximum difference between mounting and hubface measurements.

[2]Mounting attachment tolerance + or – 0.25".

Hub Bolt Pattern and Finish Options — 545

440 = 4 on 4" bolt pattern
442 = 4 on 4.25" bolt pattern
545 = 5 on 4.5" bolt pattern
54W = 5 on 4.5" bolt pattern, 6.25" flange (2K idler)
54N = 5 on 4.5" bolt pattern, 5.75" flange, 2" stud (3.5K idler)
54L = 5 on 4.5" bolt pattern, 6.25" flange, 2" stud (3.5K idler)
547 = 5 on 4.75" bolt pattern
550 = 5 on 5" bolt pattern
555 = 5 on 5.5" bolt pattern
655 = 6 on 5.5" bolt pattern
65L = 6 on 5.5" bolt pattern, 2" stud (5.2K - 6K idler)
660 = 6 on 6" bolt pattern
865 = 8 on 6.5" bolt pattern
86L = 8 on 6.5" bolt pattern, 2" stud (6K - 7K idler)
86T = 8 on 6.5" bolt pattern, ¾" stud (7K)
86L = 8 on 6.5" bolt pattern, ⅞" stud (8K)
**G = Galvanized hub (Idler only)
**P = Zinc plated hub or hub and drum
**B = Black studs

Note: Zinc studs standard on 2K thru 7K except 2K brake

Brake Options — H

I = Idler with flange (2K standard without)
B = Idler with flange/double lip seal
C = Idler without flange/double lip seal
G = Idler/prewired beam
E = Electric brake
D = Electric brake/double lip seal
W = Electric brake/prewired axle or prewired beam
# = Electric brake/prewired axle/flexguard
K = Electric brake/prewired axle/double lip seal
L = Electric brake/prewired axle/brake wire protector
M = Electric brake/prewired axle/double lip seal/brake wire protector
J = Electric brake/brake wire protector
N = Electric brake/brake wire protector/double lip seal
A = Electric brake/long lead wire
Z = Electric brake/long lead wire/double lip seal
Q = Electric brake/brake wire protector/long lead wire
R = Electric brake/brake wire protector/double lip seal/long lead wire
H = Hydraulic brake, uniservo
3 = Hydraulic brake, duo-servo
S = Hydraulic brake, uniservo/double lip seal
F = Hydraulic brake, freebacking
T = Hydraulic brake, freebacking/double seal
P = Hydraulic brake, uniservo Premier
U = Hydraulic brake, Premier/double lip seal
Y = Hydraulic brake, freebacking Premier
V = Hydraulic brake, freebacking Premier/double lip seal
4 = Hydraulic brake, disc, plain
2 = Hydraulic brake, disc, E-Coat
6 = Hydraulic brake, disc, bronze
7 = Hydraulic brake, disc, plain/integral hub (3.5K only)
8 = Hydraulic brake, disc, E-Coat/integral hub (3.5K only)
X = None; axle beam/flange (standard 2K comes without flange)

Mounting Position and Lube Options — B

P = Pads loose
Q = Pads loose/Accu–Lube
R = Pads loose/bearing protectors
X = Pads loose/oil bath
A = Bottom mount
B = Bottom mount/Accu–Lube
C = Bottom mount/bearing protectors
S = Bottom mount/oil bath
D = Top mount
E = Top mount/Accu–Lube
F = Top mount/bearing protectors
T = Top mount/oil bath
G = Side mount
H = Side mount/Accu–Lube
I = Side mount/bearing protectors
U = Side mount/oil bath
J = High top mount
K = High top mount/Accu–Lube
L = High top mount/bearing protectors
V = High top mount/oil bath
M = High side mount
N = High side mount/Accu–Lube
O = High side mount/bearing protectors
W = High side mount/oil bath
2 = Side mount/side mount kit attached
3 = High side mount/side mount kit attached
Y = Side mount/Accu-Lube/side mount kit attached
Z = High side mount/Accu-Lube/side mount kit attached
4 = Side mount/oil bath/side mount kit attached
5 = High side mount/oil bath/side mount kit attached

Note: Double lip seal standartd on Accu-Lube

Beam Options — C

X = None
C = Cambered beam
G = Galvanized beam
B = Cambered/galvanized beam
F = Galvanized beam/double bracket
H = V-bend beam
K = V-bend/galvanized beam
L = V-bend/galvanized beam/double bracket
M = Cambered beam/short spindle (2K tubular, 6K - 7K EQ)
S = Galvanized tube/cold zinc spray weld
T = Cambered/galvanized tube/cold zinc spray weld
(–) = Top and bottom mount spring pads attached

Ordering 9-12K Axles

10K 740 470 865 E B S X

Axle Capacity — 10K

09K = 9,000 lbs.
10K = 10,000 lbs.
10H = 10,000 lbs. heavy duty
12K = 12,000 lbs.

Hubface Dimension — 740

740 = 74" hubface
742 = 74.25" hubface
745 = 74.5" hubface
748 = 74.75" hubface

Mounting Dimension — 470

470 = 47" spring center
472 = 47.25" spring center
475 = 47.5" spring center
478 = 47.75" spring center

Bolt Pattern, Lube and Pilot Options — 865

865 = 8 on 6.5" bolt pattern, oil bath, hub piloted with 4.88" pilot
86G = 8 on 6.5" bolt pattern, grease lube, hub piloted with 4.88" pilot
86B = 8 on 6.5" bolt pattern, oil bath, hub piloted with 4.75" pilot
86C = 8 on 6.5" bolt pattern, oil bath, stud piloted with 4.75" pilot
86D = 8 on 6.5" bolt pattern, grease lube, stud piloted with 4.75" pilot

Brake Options — E

I = Idler
E = Electric brake
H = Hydraulic duo servo brake
D = Hydraulic disc brake
A = Air brake
B = Air brake/ABS sensors installed
C = Spring air brake
F = Spring air brake/ABS sensors installed
X = Beam only (requires brake type in last character of part number)
S = Old style beam, seal area fits 23364SA seal (2.375" seal area)

Mounting Position — B

B = Bottom mount
A = Bottom mount/adjustable spring pads
C = Bottom mount/flange nuts
D = Bottom mount/flange nuts/adjustable spring pads
T = Top mount
S = Top mount/flange nuts
P = Pads loose
Q = Pads loose/flange nuts

Spring Options — S

S = 2.5" wide spring mounted
W = 3" wide spring mounted
X = No springs

Air Brake Options and Brake Designation — X

A = Automatic slack adjusters
B = Manual slack adjusters
X = Warner brake
H = Hays/Al-Ko brake
D = Dexter brake
I = Dana air brake spider

Ordering 22.5-25K Axles

22K 715 295 3SI D B A X

Axle Capacity — 22K

22K = 22,500 lb./.50" wall tube
25K = 25,000 lb./.62" wall tube

Track Dimension — 715

715 = 71.5" Track
775 = 77.5" Track

Cam Dimension — 295

290 = 29" Cam length
292 = 29.25" Cam length
295 = 29.5" Cam length
297 = 29.75" Cam length

Hub, Bolt Pattern and Drum Options — 3S0

3SI = 3 Spoke cast/inboard mount drum
5SI = 5 Spoke cast/inboard mount drum
18I = 10 Bolt on 8.75" circle/inboard mount drum
18O = 10 Bolt on 8.75" circle/outboard mount drum
11I = 10 Bolt on 11.25" circle/inboard mount drum
11O = 10 Bolt on 11.25" circle/outboard mount drum
12I = 10 Bolt on 285.75mm circle/inboard mount drum
12O = 10 Bolt on 285.75mm circle/outboard mount drum
X12 = No hub and drum/12.25" X 7.5" brake
X16 = No hub and drum/16.5" X 7" brake

Brake Options — D

A = Standard type 30 air chambers
B = Type 30/30 spring brake air chambers
C = Standard type 30 air chambers/ABS sensor
D = Type 30/30 spring brake air chambers/ABS sensor

Adjuster Options — B

A = Straight manual slack adjusters
B = Straight automatic slack adjusters
C = Curved manual slack adjusters
D = Curved automatic slack adjusters

Lubrication Options — A

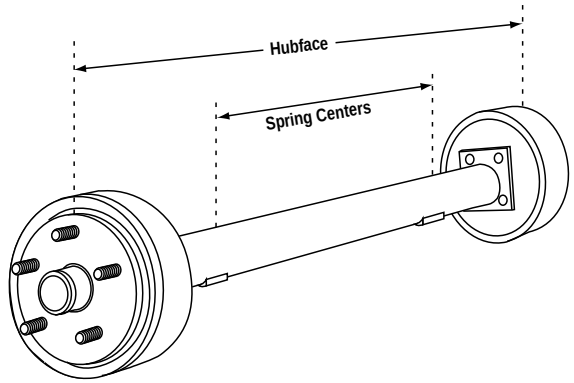
A = Standard seal and oil cap
B = Specialty seal and oil cap

Miscellaneous Options — X

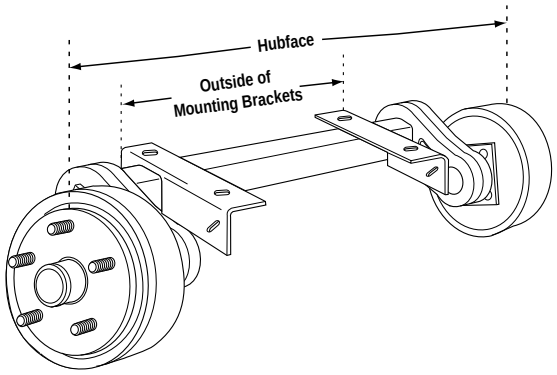
X = None
A = Bud wheel nuts for steel inner and aluminum outer wheels
B = Bud wheel nuts for aluminum inner and outer wheels
C = Wheel nuts for super single aluminum wheels

Measuring Axle Overhang

Tubular Axle Overhang Overhang is the difference between the hubface measurement and the spring centers on tubular axles.



Torsion Axle Overhang Overhang is the difference between the hubface and the distance between the mounting brackets.



TUBULAR AXLE OVERHANG DIFFERENCES

Axle Type	Minimum		Maximum Both
	Idler	Brake	
TS20	10.625 / 9"*	10.625"	19"
SS20	10.625 / 9"*	10.625"	19"
TS35	10"	13"	19"
TD35	15"	15"	19"
SS35	10"	13"	19"
SD35	14"	14"	19"
RS35	10"	13"	19"
RD35	15"	15"	19"
TS52	14"	14"	18"
TD52	16"	16"	20.5"
RS52	13.5"	13.5"	19"
RD52	17.5"	17.5"	19"
TS60	14"	14"	18"
TD60	16"	16"	20.5"
TS70	14"	14"	20.5"
TD70	16"	16"	21"
TS80	17"	17"	20.5"
TD80	18"	18"	21"
9K-12K	27"	27"	32"

TS = Tubular Straight
SS = Square Straight
RS = Rectangular Straight
TD = Tubular Drop
SD = Square Drop
RD = Rectangular Drop

***Short Spindle Option**

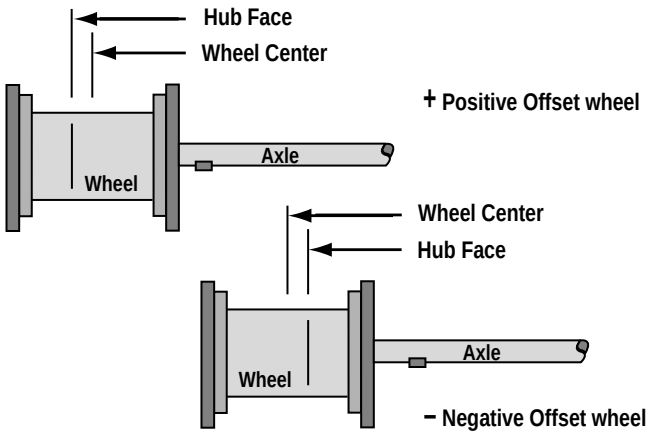
TORSION AXLE OVERHANG DIFFERENCES AND HUBFACE MINIMUM

Axle Type	Overhang		Minimum Hubface
	Minimum	Maximum	
EQ20	12.5"	22"	45"
EQ35	12.5"	24"	45"
EQ60	14.5 / 14"*	24"	50"
EQ70	14.5 / 14"*	28"	50"
EQ80	17.5"	43"	54"

EQ = Equalizer

***Short Spindle Option**

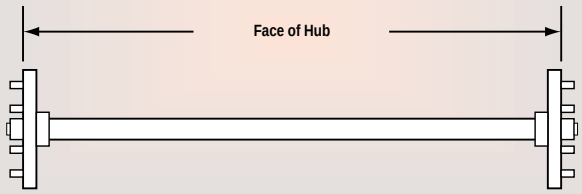
Don't use tire centers Due to the use of offset wheels, the center to center tire measurement *cannot* be used to order an axle. The actual hubface must be used.



Measuring Axle Beams

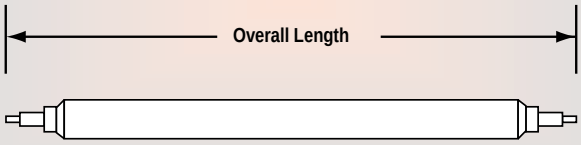
Method 1: Hubface

Measure from face of hub to face of hub



Method 2: Overall Length

Determine hubface by subtracting 5" from overall length for 2,000 lb. axles.
Determine hubface by subtracting 5" from overall length for 3,500 lb. axles.
Determine hubface by subtracting 6" from overall length for 6,000 lb. axles.
Determine hubface by subtracting 6" from overall length for 7,000 lb. axles.

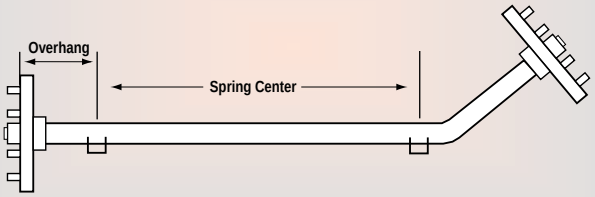


Method 3: Flange to Flange

Determine hubface by adding 7" to the flange length for 2,000 lb. axles.
Determine hubface by adding 6" to the flange length for 3,500 lb. axles.
Determine hubface by adding 9" to the flange length for 6,000 lb. axles.
Determine hubface by adding 9" to the flange length for 7,000 lb. axles.

Method 4: Bent Beam

Springcenter + Overhang x 2 = Hubface

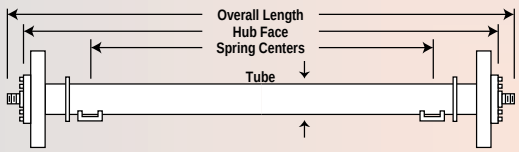


Ordering Replacement Beams

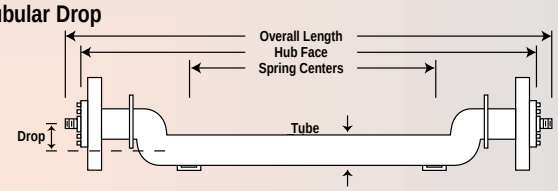
To insure that you order the correct replacement beam you will need to know the following information:

1. Tube	Is it round, square or rectangular; what is the diameter of the tube?
2. Spindles	Are they straight or drop; Accu–Lube or non-Accu–Lube?
3. Hub Type	What is the bolt pattern and bearing numbers?
4. Hub Face	What is the distance between the face of each hub?
5. Spring Center	What is the distance from center of spring to center of spring?
6. Spring Placement	Are the springs mounted on top or bottom of tube?

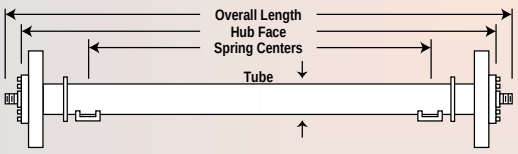
Tubular Straight



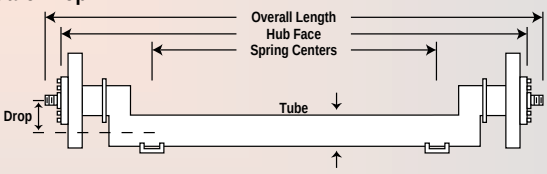
Tubular Drop



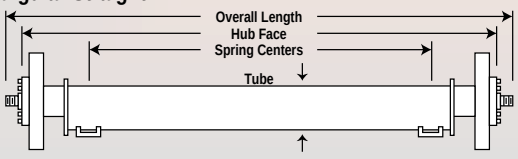
Square Straight



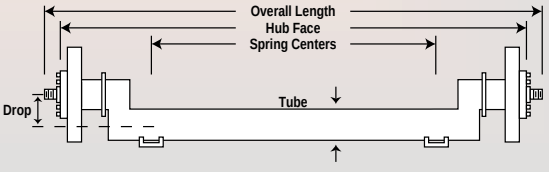
Square Drop



Rectangular Straight

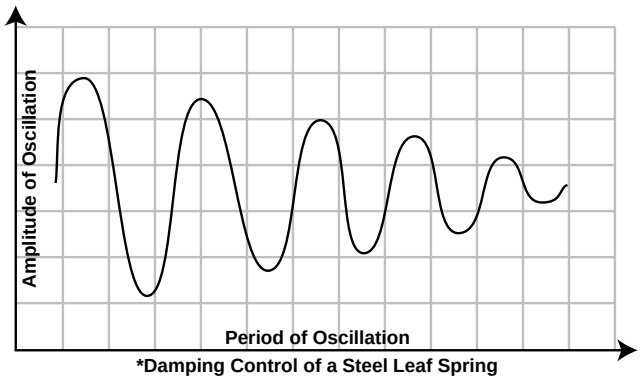


Rectangular Drop



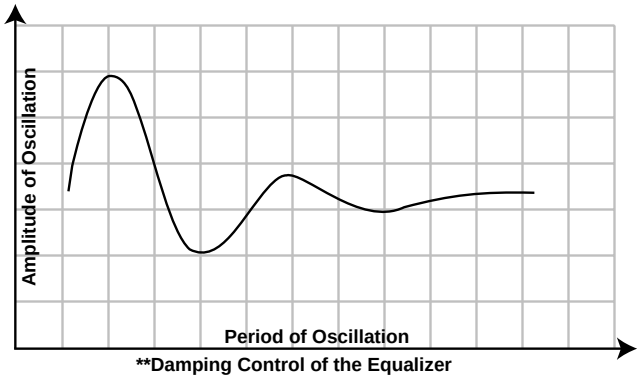
The Equalizer Torsion Axle

THE EQUALIZER TORSION AXLE MAKES LEAF SPRING SUSPENSION SYSTEMS OBSOLETE Each spindle is attached to a trailing arm which rocks up and down during road shock. This movement is then transferred to a steel inner bar within the axle beam. Rubber cords then absorb the shock from the twisting inner bar. Leaf springs have high initial amplitude followed with many slowly diminishing oscillations – a very slow return to stability.

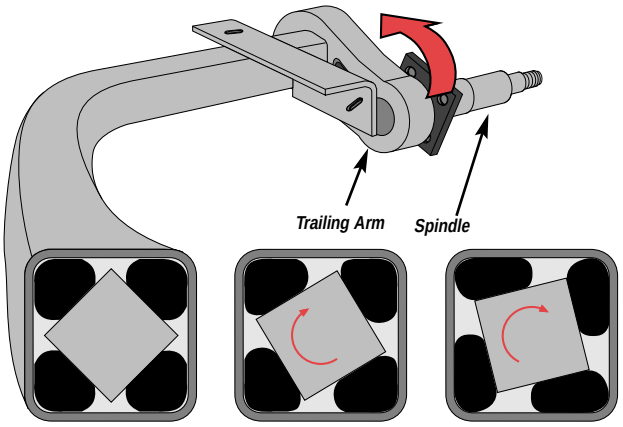


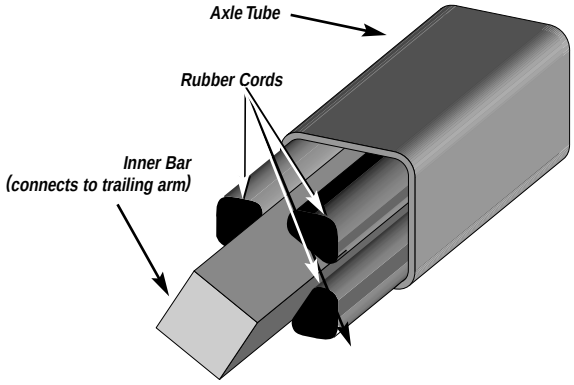
*Damping Control of a Steel Leaf Spring

The Equalizer has the same initial amplitude, but see the swift dampening with quick return to stability.



**Damping Control of the Equalizer





The Benefits

SUPERIOR PERFORMANCE The independent action provides greater control and stability which makes towing the trailer much easier. Wheel vibration is absorbed by the rubber cords.

VARIABLE CAPACITY Capacity can be tailored to your requirements in 100 lb. increments.

CAPACITY RANGE	
Axle	**Range Capacity**
2,000 lb. Equalizer	700 - 2,000 lbs.
3,500 lb. Equalizer	2,500 - 3,500 lbs.
6,000 lb. Equalizer	4,500 - 6,000 lbs.
7,000 lb. Equalizer	6,100 - 7,000 lbs.
8,000 lb. Equalizer	7,100 - 8,000 lbs.

NEAT, CLEAN, FUNCTIONAL Since the torsion axle mounts directly to the frame, we can provide most any ground-clearance you desire. There are no leaf springs, hangers, u-bolts, etc. to become clogged with mud, snow or ice.

REDUCED COSTS With no metal to metal contact, (no springs, bolts, shackle straps), maintenance is minimal. The added strength and support supplied by the torsion axle means less stress on your trailer's frame. The addition of the axle as a cross member eliminates a current cross member resulting in less cost and weight.

EASY INSTALLATION Top or side mounting is available. Only 4 bolts are needed to mount.

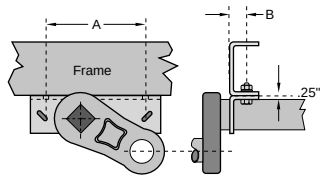
SERVICE/DELIVERY Excellent service, delivery, lead times and freight costs are integral to the success of your business. We provide all of these, giving you the greatest chance for success. With the Equalizer torsion axle we maintain our commitment to stay the most respected trailer axle manufacturer in the industry.

FIVE YEAR WARRANTY A five year warranty is standard on the Equalizer beam and suspension components of that beam.

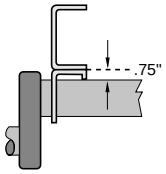
Mounting Kits and Dimensions

***NOTE:** For replacement purposes the mounting bracket has diagonally slotted side mount holes. This is to accommodate a variety of hole patterns in other side mounted torsion axle systems.

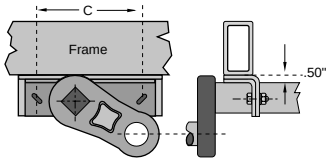
****NOTE:** Application of heat to the axle tube will damage the rubber and void the warranty.



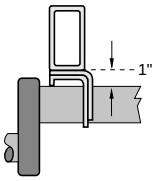
Top Mounting



Top Mounting High Profile



Side Mounting



Side Mounting High Profile

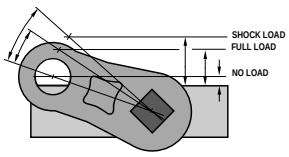
MOUNTING KITS AND DIMENSIONS

Axle Capcity	Top Mounted				Side Mounted		
	Kit Part #	Dim. A	Dim. B	Bolt Size	Kit Part #	Dim. C	Bolt Size
2,000 lb.	2001-B	7.75"	1"	.5"	2001-S	7.87"	.5"
3,500 lb.	3501-B	8"	1.25"	.625"	3501-S	8.56"	.625"
6,000 lb.	3501-B	9"	1.25"	.625"	6001-S	9.3"	.75"
7,000 lb.	3501-B	9"	1.25"	.625"	7001-S*	10"	.75"
8,000 lb.	8001-B	10.5"	1.25"	.75"	8001-S	10.5"	.75"

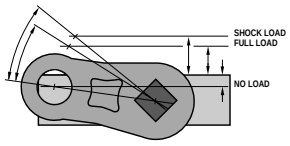
* 7,000 lb. sidemount high profile use 8001-S

Trailing Arms

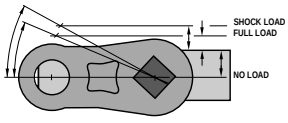
- All measurements are in inches and are calculated from the bottom of the frame.
- A minus sign indicates that the spindle is above the top of the frame.
- Allow an additional 3" above the full load dimensions for fender clearance.
- Add ..25" to start angle dimensions for side mounting.
- Add .5" to start angle dimensions for high profile top mounting (except 8K which is standard with high profile).
- Add .75" to start angle dimensions for high profile side mounting.



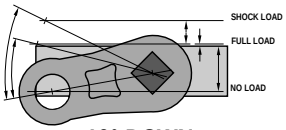
22.5° ABOVE



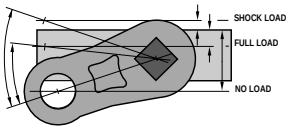
10° ABOVE



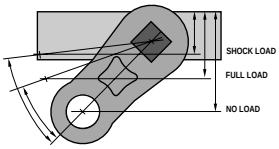
0° LEVEL



10° DOWN



22.5° DOWN

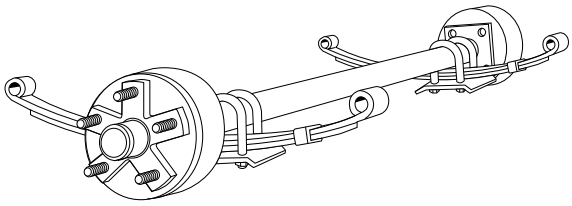


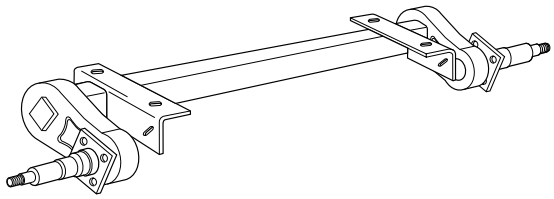
45° DOWN

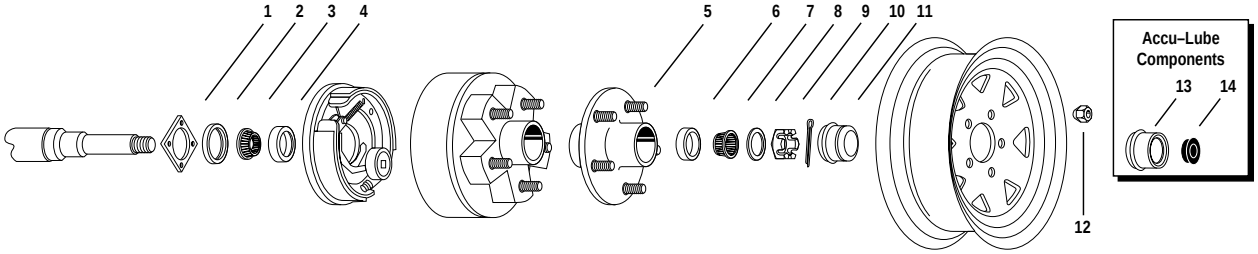
START ANGLE	POSITION	AXLE NUMBER				
		2,000 lb. Axle	3,500 lb. Axle	6,000 lb. Axle	7,000 lb. Axle	8,000 lb. Axle
22.5° Above	At no load	-.75"	-.56"	-.28"	-.06"	.63"
	At full load	-2.75"	-2.50"	-2.25"	-2.00"	2.30"
	At shock load	-3.63"	-3.43"	-3.15"	-2.90"	3.20"
10° Above	At no load	.25"	.44"	.75"	.94"	1.64"
	At full load	-1.94"	-1.69"	-1.44"	-1.19"	-1.50"
	At shock load	-3.00"	-2.75"	-2.50"	-2.25"	-2.56"
0° Level	At no load	1.25"	1.50"	1.75"	2.00"	2.70"
	At full load	-1.00"	-.75"	-.50"	-.25"	-.56"
	At shock load	-2.19"	-1.94"	-1.69"	-1.44"	-1.75"
10° Down	At no load	2.30"	2.50"	2.80"	3.06"	4.25"
	At full load	0.00"	.25"	.50"	.75"	1.44"
	At shock load	-1.25"	-1.06"	-.75"	-.50"	-.81"
22.5° Down	At no load	3.30"	3.50"	3.80"	4.06"	4.75"
	At full load	1.06"	1.25"	1.56"	1.80"	2.50"
	At shock load	-.25"	-.06"	.25"	.44"	1.25"
45° Down	At no load	5.50"	5.75"	6.00"	6.25"	6.94"
	At full load	3.60"	3.80"	4.12"	4.30"	5.0"
	At shock load	2.30"	2.50"	2.80"	3.06"	3.75"

NO LOAD = Position of trailing arm without a load.
FULL LOAD = Position of trailing arm at full capacity load.
SHOCK LOAD = Position of trailing arm at extreme shock.

2K Axle Assemblies







2,000 LB. COMPONENT PARTS

Part #	Description	Diagram #	Part #	Description	Diagram #
4-29	Brake flange, 4-hole (optional)	1	L-44649	Outer bearing, 1.0625" ID (BT16)	7
15191VB	Grease seal, single lip, 1.50" (BT16)	2	L-44643	Outer bearing, 1" ID (BT8)	—
15192TB*	Grease seal, double lip, 1.50" (BT16)	—	4753	Spindle washer, 1"	8
12192VB	Grease seal, single lip, 1.25" (BT8)	—	4754	Spindle nut, 1" – 14	9
12192TB*	Grease seal, double lip, 1.25" (BT8)	—	4755	Cotter pin, ⅛" x 2"	10
L-44649	Inner bearing, 1.0625" ID (BT16)	3	21-3	Grease cap, 1.98" OD	11
L-44643	Inner bearing, 1" ID (BT8)	—	4756	Cone wheel nut, ½" – 20 x 60°	12
L-44610	Inner race, 1.98" OD	4	21-3-AL*	Grease cap, Accu–Lube 1.98" OD	13
4758-Z	Wheel stud, ½" – 20 x 1.625" (idler)	5	RP-100*	Rubber plug, Accu–Lube cap	14
L-44610	Outer race, 1.98" OD	6			

***Note:** for Accu-Lube spindles

2,000 LB. HUBS/DRUMS

Complete Hub Part #	Hub, Cupped & Studded Part #	Description	Bolt Pattern	Spindle	Complete Hub Part #	Hub, Cupped & Studded Part #	Description	Bolt Pattern	Spindle
88440	88440-1	Idler hub	4 on 4"	BT8	88545W	88545W-1	Idler hub	5 on 4½"	BT8
88440-BT16	88440-1	Idler hub	4 on 4"	BT16	88545W-BT16	88545W-1	Idler hub	5 on 4½"	BT16
884425	884425-1	Idler hub	4 on 4¼"	BT8	98440	98440-1	Brake drum	4 on 4"	BT8
884425-BT16	884425-1	Idler hub	4 on 4¼"	BT16	98440-BT16	98440-1	Brake drum	4 on 4"	BT16
88545	88545-1	Idler hub	5 on 4½"	BT8	98545	98545-1	Brake drum	5 on 4½"	BT8
88545-BT16	88545-1	Idler hub	5 on 4½"	BT16	98545-BT16	98545-1	Brake drum	5 on 4½"	BT16

Note: Cupped & studded hubs include the hub, wheel studs and inner & outer race/cups. Complete hubs include the cupped and studded hub, inner & outer bearings, seal, lug nuts and dust cap/grease cap.
Add "AL" to the end of the assembly part number for Acculube components.

2,000 LB. BRAKES

Part #	Description	Part #	Description
23-47	Electric, 7" X 1¼", left hand	4712-L	Hydraulic, 7" X 1¾", left hand
23-48	Electric, 7" X 1¼", right hand	4712-R	Hydraulic, 7" X 1¾", right hand

Note: For brake replacement parts see pages C–2 and C–10.

***Note:** It is not recommended to exceed axle capacity by spring capacity.*

2K Axle Assemblies

2,000 LB. HANGER KITS

Part #	Description	Springs	Part #	Description	Springs
4103	Single axle	Double eye	4102	Tandem axle	Double eye
4103-L	Single axle, tall	Double eye	4102-A	Tandem axle, tall	Double eye
4104	Single axle	Slipper	4101	Triple axle	Double eye
4105	Single axle, ½" eye	Slipper	4101-A	Triple axle, tall	Double eye

Note: For additional hanger kit information see pages B–5 - B–13.

2,000 LB. U-BOLT KITS

Part #	Description	Tube Diameter
4205	Round beam	1¾"
4205-ZP	Round beam, zinc plated	1¾"
4203	Square beam	2"
4203-ZP	Square beam, zinc plated	2"

AP (Attaching Parts) KITS FOR EQUALIZERS

Part #	Top/Side Mount
2001-B	Top mount
2001-S	Side mount

Note: Side mount kits include nuts, bolts, washers, and mounting brackets.
Top mount kits include nuts, bolts and washers only.

2,000 LB. LEAF SPRINGS

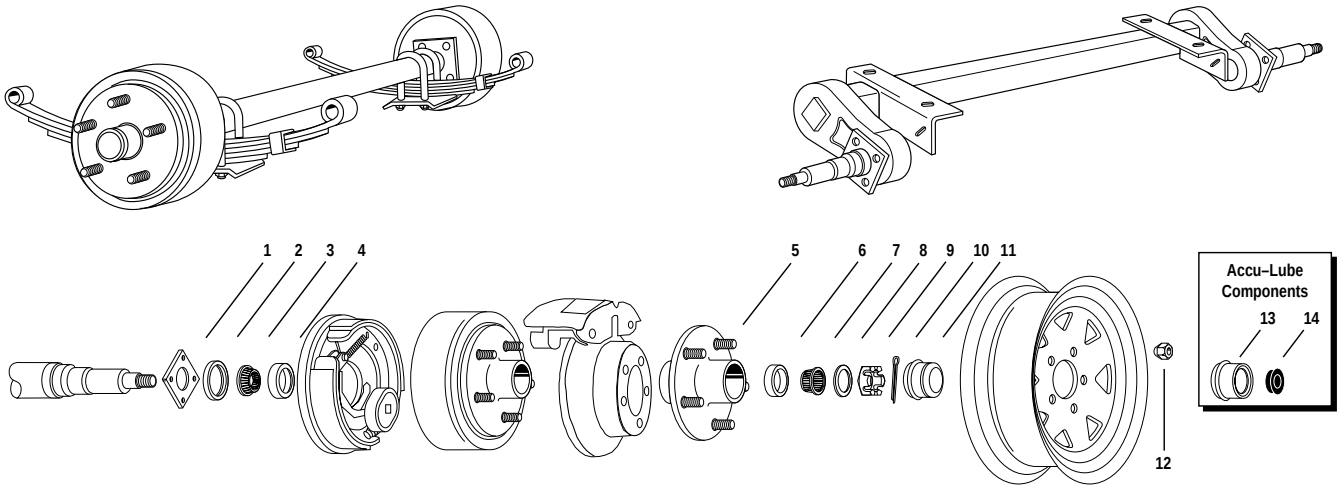
Part #	Style	Length	Capacity	No. of Leaves	Width
4332-11	Double eye	24"	1,100 lbs.	3	1¾"
4332-12	Double eye	25¼"	1,250 lbs.	3	1¾"
4332-13	Double eye	20"	1,300 lbs.	3	1¾"
4332-13L	Double eye	23¼"	1,300 lbs.	3	1¾"
4321-5	Slipper	24"	500 lbs.	2	1¾"
4331-7	Slipper	24"	750 lbs.	3	1¾"
4341-10	Slipper	24"	1,000 lbs.	4	1¾"
4351-12	Slipper	24"	1,250 lbs.	5	1¾"

Note: For additional spring options see pages B–14 - B–15.

2,000 LBS. TUBULAR AND TORSION AXLES – SPECIFICATIONS AND OPTIONS

Specifications/ Options	2K	2K EQ	Specifications/ Options	2K	2K EQ
Lubrication			**Brakes** *(continued)*		
Grease Lube	Std.	Std.	Pre-wired axle tubing	X	X
Accu-Lube	X	X	**Spindles**		
Bearing protectors	X	X	BT-8 Spindle	X	
Studs			BT-16 Spindle	Std.	Std.
½" Zinc studs	Std.	Std.	Straight spindle	X	
Bolt Circles			4" Drop spindle (2" sq. tube only)	X	
4 Bolt on 4" circle	X	X	3" Drop spindle (2" sq. tube only)	X	
4 Bolt on 4.25" circle	X	X	2" Drop spindle (2" sq. tube only)	X	
5 Bolt on 4.5" circle with 5.75" flange (std)	X	X	**Axle Materials**		
5 Bolt on 4.5" circle with 6.25" flange	X	X	Cambered axle tubing	X	Std.
Hubs			V-Bend Tubing		X
Zinc plated hubs	X	X	Galvanized axle tubing (cold zinc spray welds)	X	
Galvanized hubs	X	X	Galvanized axle beam	X	X
Seals			1.75" X .1875" Round tube	Std.	
Single lip seal	Std.	Std.	2.173" X .149" Round corner square tube		Std.
Double lip seal (standard with Accu-Lube)	X	X	2" X .25" Round corner square tube	X	
Brakes			**Attachments**		
Electric brake	X	X	High mount brackets +2"		X
Hydraulic brake, Uni-Servo	X	X	High mount brackets +3"		X
Brake flange on idler axle	X	Std.	***Std. = Standard X = Optional***		

3.5K Axle Assemblies



3,500 LB. COMPONENT PARTS

Part #	Description	Diagram #	Part #	Description	Diagram #
4-12	Brake flange, 4-hole	1	L-44649	Outer bearing, 1.0625" ID	7
171255VB	Grease seal. single lip, 1.719"	2	4753	Spindle washer, 1"	8
171255TB	Grease seal. double lip, 1.719"	–	4754	Spindle nut, 1" – 14	9
L-68149	Inner bearing, 1.375" ID	3	4755	Cotter pin, ⅛" x 2"	10
L-68111	Inner race, 2.362" OD	4	21-3	Grease cap, 7.98" OD	11
4759-Z	Wheel stud, ½" – 20 x 1.8125"	5	4756	Cone wheel nut, ½" – 20 x 60°	12
4759-20-Z	Wheel stud, ½" – 20 x 2"	–	21-3-AL*	Grease cap, Accu–Lube 1.98" OD	13
L-44610	Outer race, 1.98" OD	6	RP-100*	Rubber plug, Accu–Lube cap	14

***Note:** for Accu-Lube spindles

3,500 LB. HUBS/DRUMS

Complete Hub Part #	Hub, Cupped & Studded Part #	Description	Bolt Pattern	Complete Hub Part #	Hub, Cupped & Studded Part #	Description	Bolt Pattern
84545	84545-1	Idler hub	5 on 4½"	94545	94545-1	Brake drum	5 on 4½"
845475	845475-1	Idler hub	5 on 4¾"	945475	945475-1	Brake drum	5 on 4¾"
84550	84550-1	Idler hub	5 on 5"	94550	94550-1	Brake drum	5 on 5"
84555	84555-1	Idler hub	5 on 5½"	94555	94555-1	Brake drum	5 on 5½"
84655	84655-1	Idler hub	6 on 5½"	94655	94655-1	Brake drum	6 on 5½"

Note: Cupped & studded hubs include the hub, wheel studs and inner & outer race/cups. Complete hubs include the cupped and studded hub, inner & outer bearings, seal, lug nuts and dust cap/grease cap.
Add "AL" to complete assembly part numbers for Acculube components.

3,500 LB. BRAKES

Part #	Description	Part #	Description
4701-L	Electric, 10" X 2¼", left hand	44453	Hydraulic premier, 10" X 2¼", right hand
4701-R	Electric, 10" X 2¼", right hand	44235	Hydraulic freebacking premier, 10" X 2¼", left hand
4710-L	Hydraulic, 10" X 2¼", left hand	44234	Hydraulic freebacking premier, 10" X 2¼", right hand
4710-R	Hydraulic, 10" X 2¼", right hand	2/RCM-10	Hydraulic disc, 10", pair
40716	Hydraulic freebacking, 10" X 2¼", left hand	2/RCM10-E	Hydraulic disc, 10", E-coat, pair
40715	Hydraulic freebacking, 10" X 2¼", right hand	2/RCM-10-SB	Hydraulic disc, 10", bronze, pair
44454	Hydraulic premier, 10" X 2¼", left hand		

Note: For brake replacement parts see pages C–3, C–11 thru C–12 and C–19.

***Note:** It is not recommended to exceed axle capacity by spring capacity.*

3.5K Axle Assemblies

3,500 LB. HANGER KITS

Part #	Description	Springs	Part #	Description	Springs
4103	Single axle	Double eye	4102	Tandem axle	Double eye
4103-L	Single axle, tall	Double eye	4102-A	Tandem axle, tall	Double eye
4104	Single axle	Slipper	4101	Triple axle	Double eye
4105	Single axle, ½" eye	Slipper	4101-A	Triple axle, tall	Double eye

Note: For hanger kit information see pages B–5 thru B–13.

3,500 LB. LEAF SPRINGS

Part #	Style	Length	Capacity	No. of Leaves	Width
4342-16	Double eye	26"	1,600 lbs.	4	1¾"
4342-17	Double eye	25¼"	1,750 lbs.	4	1¾"
4332-18	Double eye	25¼"	1,850 lbs.	3	1¾"
4341-17	Slipper	29"	1,750 lbs.	5	1¾"
4351-23	Slipper	24"	2,300 lbs.	4	1¾"

Note: For spring leaf options see pages B–14 thru B–15.

AP (Attaching Parts) KITS FOR EQUALIZERS

Part #	Top/Side Mount
3501-B	Top mount
3501-S	Side mount

Note: Side mount kits include nuts, bolts, washers, and mounting brackets.
Top mount kits include nuts, bolts and washers only.

3,500 LB. U-BOLT KITS

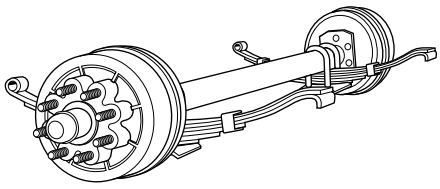
Part #	Description	Tube Diameter
4202	Round beam	2⅜"
4202-ZP	Round beam, zinc plated	2⅜"
4201	Round beam	3"
4201-ZP	Round beam, zinc plated	3"
4203	Square beam	2"
4203-ZP	Square beam, zinc plated	2"
4290-L	Square beam	2½"
4203-L	Rectangular beam	2" x 3"
4203-LZP	Rectangular beam, zinc plated	2" x 3"

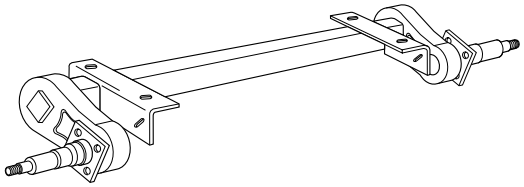
3,500 LBS. TUBULAR AND TORSION AXLES – SPECIFICATIONS AND OPTIONS

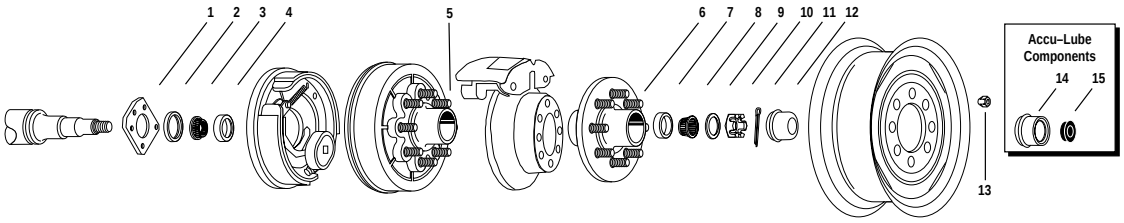
Specifications/ Options	3.5K	3.5K EQ	Specifications/ Options	3.5K	3.5K EQ
Lubrication			Brakes *(continued)*		
Grease Lube	Std.	Std.	Hydraulic Disc brake	X	X
Accu-Lube	X	X	Hydraulic Disc brake, E-Coat	X	X
Bearing protectors	X	X	Hydraulic Disc brake, Bronze	X	X
Studs			Brake flange on idler axle	Std.	Std.
½" Zinc studs	Std.	Std.	Pre-wired axle tubing	X	X
½" X 2" Zinc studs (standard with disc brakes)	X	X	Brake wire protectors	X	X
Bolt Circles			Long magnet lead wires	X	X
5 Bolt on 4.5" circle with 5 ¾" flange	X	X	Spindles		
5 Bolt on 4.5" circle with 6 ¼" flange (std)	X	X	#84 Spindle	Std.	Std.
5 Bolt on 4.75" circle	X	X	Straight spindle	X	
5 Bolt on 5" circle	X	X	4" Drop spindle	X	
5 Bolt on 5.5" circle	X	X	3" Drop spindle (2" sq. & 2" x 3" rect. tube only)	X	
6 Bolt on 5.5" circle	X	X	2" Drop spindle (2" sq. & 2" x 3" rect. tube only)	X	
Hubs			Axle Materials		
Zinc plated hubs	X	X	Cambered axle tubing	X	Std.
Zinc plated hub and drums	X	X	V-Bend Tubing		X
Galvanized hubs	X	X	Galvanized axle tubing	X	X
Seals			Galvanized axle beam	X	X
Single lip seal	Std.	Std.	2.375" X .1875" Round tube	Std.	
Double lip seal (standard with Accu-Lube)	X	X	3" X .1875" Round tube	X	
Stainless steel spindle wear sleeve	X	X	2.625" X .187" Round corner square tube		Std.
Brakes			2" X .25" Round corner square tube	X	
Electric brake	X	X	2.5" X .25" Round corner square tube	X	
Hydraulic brake, Uni-Servo	X	X	2" X 2" X .25" Round corner rectangular tube	X	
Hydraulic brake, Uni-Servo with parking feature	X	X	Attachments		
Hydraulic brake, Free Backing	X	X	High mount brackets +.5"		X
Hydraulic brake, Uni-Servo Premier	X	X	High mount brackets +.2"		X
Hydraulic brake, Free Backing Premier	X	X	High mount brackets +.3"		X

Std. = Standard X = Optional

5.2, 6 & 7K Axle Assemblies







5,200, 6,000 AND 7,000 LB. COMPONENT PARTS

Part #	Description	Diagram #	Part #	Description	Diagram #
4-6T	Brake flange, 5-hole	1	14125A	Outer bearing, 1.25" ID (8 bolt)	–
22333VB	Grease seal, single lip, 2.25"	2	4753	Spindle washer, 1"	9
22333TBN	Grease seal, double lip, 2.25"	–	4754	Spindle nut, 1" – 14	10
25580	Inner bearing, 1.75" ID	3	4755	Cotter pin, ⅛" x 2"	11
25520	Inner race, 3.625" OD	4	21-1	Grease cap, 2.44" OD (6 bolt)	12
4759-25-Z	Wheel stud, ½" – 20 x 2.5"	5	1605	Grease cap, 2.717" OD (8 bolt)	–
4759-Z	Wheel stud, ½" – 20 x 1.8125"	6	4756	Cone wheel nut, ½" – 20 x 60°	13
15245	Outer race, 2.441" OD (6 bolt)	7	21-1-AL*	Grease cap, Accu–Lube 2.44" OD	14
14276	Outer race, 2.717" OD (8 bolt)	–	1605-AL*	Grease cap, Accu–Lube 2.717" OD	–
15123	Outer bearing, 1.25" ID (6 bolt)	8	RP-100*	Rubber plug, Accu–Lube cap	15

***Note:** for Accu-Lube spindles

5,200, 6,000 AND 7,000 LB. HUBS/DRUMS

Complete Hub Part #	Hub, Cupped & Studded Part #	Description	Bolt Pattern	Complete Hub Part #	Hub, Cupped & Studded Part #	Description	Bolt Pattern
82655	82655-1	Idler hub	6 on 5½"	92865A	92865A-1	Brake drum	8 on 6½"
82660	82660-1	Idler hub	6 on 6"	92865A-OB*	92865A-1OB	Brake drum	8 on 6½"
82865A	82865A-1	Idler hub	8 on 6½"	9286T-OB**	9286T-1OB	Brake drum	8 on 6½"
92655	92655-1	Brake drum	6 on 5½"	*Oil bath **Oil bath / 9/16" studs			

Note: Cupped & studded hubs include the hub, wheel studs and inner & outer race/cups. Complete hubs include the cupped and studded hub, inner & outer bearings, seal, lug nuts and dust cap/grease cap.
Add "AL" to complete assembly part numbers for Acculube components.

5,200, 6,000 AND 7,000 LB. BRAKES

Part #	Description	Part #	Description
4704-L	Electric, 12" X 2¼", left hand	44896	Hydraulic freebacking premier, 12" X 2¼", left hand
4704-R	Electric, 12" X 2¼", right hand	44895	Hydraulic freebacking premier, 12" X 2¼", right hand
4711-L	Hydraulic, 12" X 2¼", left hand	2/RCM-12	Hydraulic disc, 12", pair (6 bolt)
4711-R	Hydraulic, 12" X 2¼", right hand	2/RCM-12E	Hydraulic disc, 12", E-coat, pair (6 bolt)
42029	Hydraulic freebacking, 12" X 2¼", left hand	2/RCM-12-SB	Hydraulic disc, 12", bronze, pair (6 bolt)
42028	Hydraulic freebacking, 12" X 2¼", right hand	2/RCM-13	Hydraulic disc, 13", pair (8 bolt)
44984	Hydraulic premier, 12" X 2¼", left hand	2/RCM-13E	Hydraulic disc, 13", E-coat, pair (8 bolt)
44983	Hydraulic premier, 12" X 2¼", right hand		

Note: For brake replacement parts see pages C–4, C–13 thru C–14 and C–19.

***Note:** It is not recommended to exceed axle capacity by spring capacity.*

5.2, 6 & 7K Axle Assemblies

5,200, 6,000 AND 7,000 LB. HANGER KITS

Part #	Description	Springs	Part #	Description	Springs
4103-L	Single axle, tall	Double eye	4114-H	Tandem axle	Slipper
4115-H	Single axle	Slipper	4101	Triple axle	Double eye
4102	Tandem axle	Double eye	4101-A	Triple axle, tall	Double eye
4102-A	Tandem axle, tall	Double eye	4113-H	Triple axle	Slipper

Note: For hanger kit information see pages B–5 thru B–13.

AP (Attaching Parts) KITS FOR EQUALIZERS

Part #	Top/Side Mount
3501-B	Top mount
6001-S	Side mount
7001-S	Side mount
8001-S	Side mount for 7K high profile side mount

Note: Side mount kits include nuts, bolts, washers, and mounting brackets.
Top mount kits include nuts, bolts and washers only.

5,200, 6,000 AND 7,000 LB. U-BOLT KITS

Part #	Description	Tube Diameter
4201	Round beam	3"
4201-ZP	Round beam, zinc plated	3"
4290-L	Square beam	2.5"
4203-L	Rectangular beam	2" x 3"
4203-LZP	Rectangular beam, zinc plated, long	2" x 3"

5,200, 6,000 AND 7,000 LB. LEAF SPRINGS

Part #	Style	Length	Capacity	No. of Leaves	Width	Part #	Style	Length	Capacity	No. of Leaves	Width
4352-29	Double eye	25.25"	2,900 lbs.	5	1.75"	4362-33	Double eye	25.25"	3,300 lbs.	6	1.75"
4342-30	Double eye	26"	3,000 lbs.	4	1.75"	1003T3	Slipper	26.125"	2,500 lbs.	4	2"
4362-30	Double eye	27"	3,000 lbs.	6	1.75"	4351-30	Slipper	27"	3,000 lbs.	5	2"
4382-30	Double eye	26"	3,000 lbs.	8	1.75"	1203T3	Slipper	26.125"	3,500 lbs.	5	2"

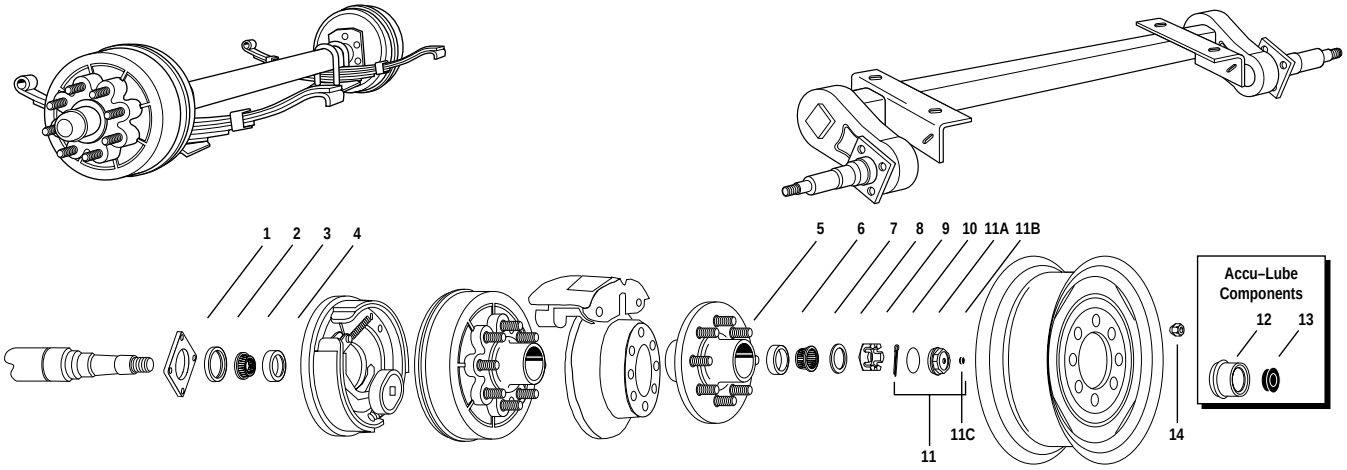
Note: For leaf spring options see pages B–14 thru B–15.

5.2K, 6K & 7K LBS. TUBULAR AND TORSION AXLES – SPECIFICATIONS AND OPTIONS

Specifications/ Options	5.2K	6K	7K	6K EQ	7K EQ	Specifications/ Options	5.2K	6K	7K	6K EQ	7K EQ
Lubrication						**Brakes** *(continued)*					
Grease Lube	Std.	Std.	Std.	Std.	Std.	Hydraulic disc brake	X	X	X	X	X
Accu-Lube	X	X	X	X	X	Hydraulic Disc brake, E-Coat	X	X	X	X	X
Bearing protectors	X	X	X	X	X	Hydraulic Disc brake, Bronze (6 bolt only)	X	X		X	
Oil bath lube		X	X	X	X	ABS Sensors (8 bolt disc only)		X	X	X	X
Studs						Brake flange on idler axle	Std.	Std.	Std.	Std.	Std.
½" Zinc studs	Std.	Std.	Std.	Std.	Std.	Pre-wired axle tubing	X	X	X	X	X
½" X 2" Zinc studs (standard with disc brakes)	X	X	X	X	X	Brake wire protectors	X	X	X	X	X
9/16" Zinc studs		X	X	X	X	Long magnet lead wires	X	X	X	X	X
Bolt Circles						**Spindles**					
6 Bolt on 5.5" circle	Std.	X		X		#42 Spindle	Std.	Std.	Std.	Std.	Std.
6 Bolt on 6" circle (Idler only)	X	X	X	X	X	Straight Spindle	X	X	X		
8 Bolt on 6.5" circle		Std.	Std.	Std.	Std.	4" Drop spindle	X	X	X		
Hubs						3" Drop spindle (2" sq., 2.5" sq. & 2" x 3" rect. tube only)	X				
Zinc plated hubs	X	X	X	X	X	2" Drop spindle (2" sq., 2.5" sq. & 2" x 3" rect. tube only)	X				
Zinc plated hub and drums	X	X	X	X	X	**Axle Materials**					
Seals						Cambered axle tubing	X	X	X	Std.	Std.
Single lip seal	Std.	Std.	Std.	Std.	Std.	V-bend tubing				X	
Double lip seal (standard with Accu-Lube)	X	X	X	X	X	Galvanized axle tubing (cold zinc spray welds)	X				
Unitized seal		X	X	X	X	Galvanized axle beam	X	X	X	X	X
Stainless steel spindle seal sleeve	X	X	X	X	X	3" X .1875" Round tube	Std.	Std.			
Brakes						3" X .25" Round tube		X	Std.		
Electric brake	X	X	X	X	X	2.5" X .25" Round corner square tube	X	X			
Hydraulic brake, Duo-Servo	X	X	X			3.031" X .203" Round corner square tube				Std.	
Hydraulic brake, Uni-Servo	X	X	X	X	X	3.50" X .25" Round corner square tube					Std.
Hydraulic brake, Uni-Servo with parking feature	X	X	X	X	X	2" X 3" X .25" Round corner rectangular tube	X	X			
Hydraulic brake, Free Backing	X	X	X	X	X	**Attachments**					
Hydraulic brake, Uni-Servo Premier	X	X	X	X	X	High mount brackets +.5"				X	X
Hydraulic brake, Free Backing Premier	X	X	X	X	X						

Std. = Standard X = Optional

8K Axle Assemblies



8,000 LB. COMPONENT PARTS

Part #	Description	Diagram #	Part #	Description	Diagram #
4-50	Brake flange, 4-hole	1	22-03	Oil cap, complete assembly (Dexter)	11
370219A	Oil seal, unitized, 2.25"	2	801	Oil cap, 2.875" - 8 (QRG)	11B
22333TBN	Grease seal, double lip, 2.25"	–	21-35	Oil cap, 2.875" - 14 (Dexter)	11B
25580	Inner bearing, 1.75" ID	3	802	"O" ring (QRG)	11A
25520	Inner race, 3.625" OD	4	10-45	"O" ring (Dexter)	11A
4759-28	Wheel stud, 9/16" – 18 x 3"	5	568223	Oil cap plug (QRG)	11C
4759-30	Wheel stud, 9/16" – 18 x 3.25"	–	RP-200	Oil cap plug (Dexter)	11C
02420	Outer race, 2.688" OD	6	1605-AL*	Grease cap, Accu-Lube 2.717" OD	12
02475	Outer bearing, 1.25" ID	7	RP-100*	Rubber plug, Accu-Lube cap	13
4753	Spindle washer, 1"	8	4756-1	Cone wheel nut, 9/16" – 18 x 60°	14
4754	Spindle nut, 1" - 14	9	4756-2	Cone wheel nut, 9/16" – 18 x 90°	–
4755	Cotter pin, 1/8" x 2"	10	X1048	Cone wheel nut, 5/8" – 18 x 90°	–
8001	Oil cap, complete assembly (QRG)	11			

***Note:** for Accu-Lube spindles

8,000 LB. HUBS/DRUMS

Complete Hub Part #	Hub, Cupped & Studded Part #	Description	Bolt Pattern	Complete Hub Part #	Hub, Cupped & Studded Part #	Description	Bolt Pattern
80865*	80865-1*	Idler hub	8 on 6½"	8-285-92***	8-285-09***	Brake drum	8 on 6½"
90865*	90865-1*	Brake drum	8 on 6½"	8-285-90****	8-285-10****	Brake drum	8 on 6½"
9086L**	9086L-1**	Brake drum	8 on 6½"	* 9/16" - 18 studs ** 5/8" - 18 studs *** Fits Dexter brakes, 9/16" - 18 studs **** Fits Dexter brakes, 5/8" - 18 studs			

Note: Cupped & studded hubs include the hub, wheel studs and inner & outer race/cups. Complete hubs include the cupped and studded hub, inner & outer bearings, seal, lug nuts and dust cap/grease cap.

8,000 LB. BRAKES

Part #	Description	Part #	Description
1301-13	Electric, 12¼" X 3½", left hand, Warner	23-138**	Hydraulic, 12¼" X 3⅜", left hand, Dexter
1301-14	Electric, 12¼" X 3½", right hand, Warner	23-139**	Hydraulic, 12¼" X 3⅜", left hand, Dexter
23-97*	Electric, 12¼" X 3⅜", left hand, Dexter	2/RCM-133	Hydraulic disc, 13.3", pair
23-98*	Electric, 12¼" X 3⅜", right hand, Dexter	2/RCM-133-E	Hydraulic disc, 13.3", pair, E-coat

Note: Does not include dust cover.
Hydraulic disc with 9/16" stud only.
* Uses 36-53-3 dust cover for electric ** Uses 36-35 dust cover for hydraulic

Note: *It is not recommended to exceed axle capacity by spring capacity.*

8K Axle Assemblies

8,000 LB. HANGER KITS

Part #	Description	Springs
4115-H	Single axle	Slipper
4114-H	Tandem axle	Slipper
4113-H	Triple axle	Slipper

Note: For hanger kit information see pages B–5 thru B–13.

AP (Attaching Parts) KITS FOR EQUALIZERS

Part #	Top/Side Mount
8001-B	Top mount
8001-S	Side mount

Note: Side mount kits include nuts, bolts, washers, and mounting brackets. Top mount kits include nuts, bolts and washers only.

8,000 LB. LEAF SPRINGS

Part #	Style	Length	Capacity	No. of Leaves	Width
1403T3	Slipper	26.125"	4,000 lbs.	6	2"
4361-40	Slipper	29"	4,000 lbs.	6	2"
4361-45	Slipper	30"	4,500 lbs.	6	2"

Note: For leaf spring options see page B–15.

8,000 LB. U-BOLT KITS

Part #	Description	Tube Diameter
4200	Round beam	3½"

8,000 LBS. TUBULAR AND TORSION AXLES – SPECIFICATIONS AND OPTIONS

Specifications/ Options	8K	8K EQ
Lubrication		
Grease Lube	X	X
Accu-Lube	X	X
Bearing protectors	X	X
Oil bath lube	Std.	Std.
Studs		
9/16" Studs	Std.	Std.
5/8" Studs	X	X
Bolt Circles		
8 Bolt on 6.5" circle	Std.	Std.
Seals		
Double lip seal (standard with Accu-Lube)	X	X
Unitized seal	Std.	Std.
Brakes		
Electric brake	X	X
Hydraulic brake, Duo-Servo	X	X
Hydraulic disc brake	X	X

Specifications/ Options	8K	8K EQ
Brakes		
Hydraulic disc brake, E-coat	X	X
ABS sensors (disc only)	X	X
Brake flange on idler axle	Std.	Std.
Prewired axle tubing	X	X
Spindles		
#42 spindle	Std.	Std.
Straight spindle	X	
4" Drop spindle	X	
Axle Materials		
Cambered axle tubing	X	Std.
Galvanized axle beam	X	X
3.5" x .25" Round tube	Std.	
3.875" x .25" Round corner square tube		Std.
Attachments		
High mount brackets +.5"		Std.

Std. = Standard X = Optional

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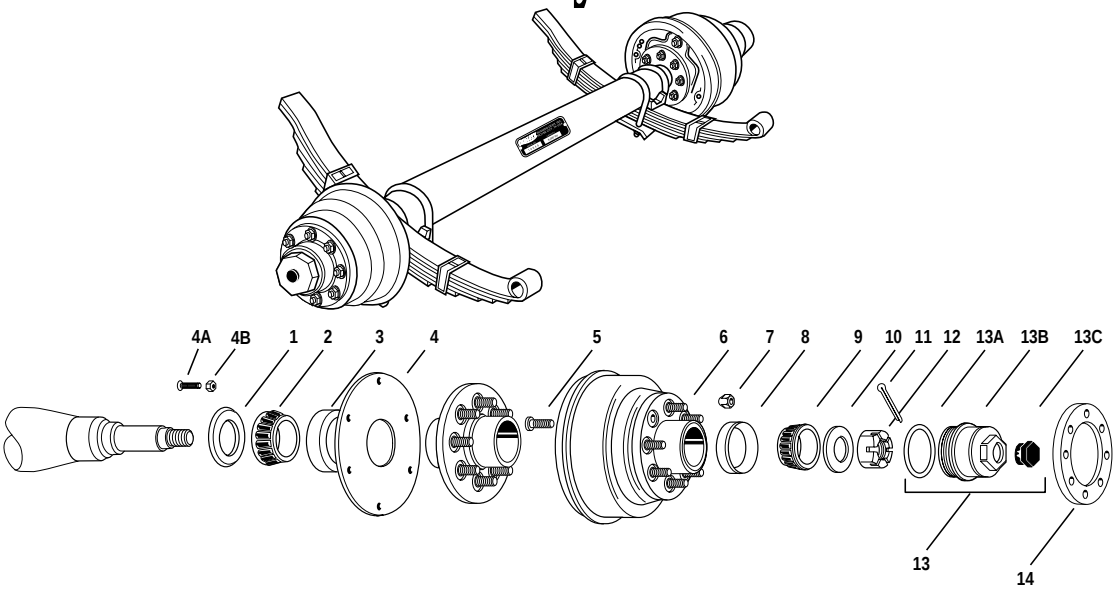
9K & 10K Gen. Duty Axle Assemblies



9,000 LB. AND 10,000 LB. GENERAL DUTY COMPONENT PARTS

Part #	Description	Diagram #	Part #	Description	Diagram #
CR27438	Oil seal, unitized, 2.75"	1	25580-T	Outer bearing, Timken 2" ID	9
28580-T	Inner bearing, Timken 2" ID	2	4798	Spindle washer, 1.5"	10
28521-T	Inner race, Timken 2.875" OD	3	CP-3	Cotter pin, ¼" x 3"	11
1301-9	♦ Armature plate	4	4797	Spindle nut, 1½" - 12	12
FL14201	♦ Flat head bolt, ¼" - 20	4A	12011-1	Oil cap, complete assembly	13
14LN	♦ Lock nut, ¼" - 20	4B	N70238	"O" ring	13A
363910	Wheel stud, ⅝" – 18 x 2.75" (idler)	5	12011	Oil cap, 3.75" - 8	13B
4759-30	Wheel stud, ⅝" – 18 x 3.25"	6	RP-200	Oil cap plug	13C
X1048	Cone wheel nut, ⅝" – 20 x 90°	7	72-2140	Tension ring, 8 on 6.5" bolt circle	14
25520-T	Outer race, Timken 3.265" OD	8			

Note: ♦ For electric brake only

9,000 LB. AND 10,000 LB. GENERAL DUTY HUBS/DRUMS

Complete Hub Part #	Hub, Cupped & Studded Part #	Description	Complete Hub Part #	Hub, Cupped & Studded Part #	Description
89865-OB	89865-1OB	Idler hub, oil bath	99865-OB	99865-1OB	Hub & brake drum, oil bath, for hydraulic
89865-OBR	89865-1OBR	Hub for 99865-DRUM	99865-OBE	99865-1OB*	Hub & brake drum, oil bath, for electric
—	99865-DRUM	Brake drum only	99865-OBA	99865-1OBA	Hub & brake air drum, oil bath

Note: Cupped & studded hubs include the hub, wheel studs and inner & outer race/cups. Complete hubs include the cupped and studded hub, inner & outer bearings, seal, lug nuts, oil cap, oil cap plug "O" ring.

* Armature plate not included.

9,000 LB. AND 10,000 LB. GENERAL DUTY BRAKES

Part #	Description	Part #	Description
1301-13	Electric, 12¼" X 3½", left hand, Warner	568255.1	Electric, 12¼" X 3½", right hand, Al-Ko
1301-14	Electric, 12¼" X 3½", right hand, Warner	568213	Hydraulic, 12¼" X 3½", left/right hand, Al-Ko
568255.2	Electric, 12¼" X 3½", left hand, Al-Ko		

Note: *It is not recommended to exceed axle capacity by spring capacity.*

9K & 10K Gen. Duty Axle Assemblies

9,000 LB. AND 10,000 LB. GENERAL DUTY HANGER KITS

Part #	Description	Springs	Part #	Description	Springs
APS92	Single axle, 9K	Slipper	APT1025GD4275	Tandem axle, 10K	Slipper
APT92	Tandem axle, 9K	Slipper	APT1025GD4850	Tandem axle, 10K	Slipper
APTT92	Triple axle, 9K	Slipper	APTT1025GD4275	Triple axle, 10K	Slipper
APS1025GD	Single axle, 10K	Slipper	APTT1025GD4850	Triple axle, 10K	Slipper

9,000 LB. AND 10,000 LB. GENERAL DUTY LEAF SPRINGS

Part #	Style	Length	Capacity	No. of Leaves	Width
4361-45	Slipper	30"	4,500 lbs.	6	2"
43101-56	Slipper	32.5"	5,000 lbs.	5	2.5"

9,000 LB. AND 10,000 LB. GENERAL DUTY U-BOLT KITS

Part #	Description	Tube Diameter
APUBR40	Round beam, 2" spring	4"
APUBR50	Round beam, 2.5" spring	5"

9K LBS. & 10K GENERAL DUTY TUBULAR AND TORSION AXLES – SPECIFICATIONS AND OPTIONS

Specifications/ Options	9K	10K/GD
Lubrication		
Grease lube	X	X
Oil bath lube	Std.	Std.
Studs		
⅝" Studs	Std.	Std.
Swivel flange nuts	X	X
Tension ring with ⅝" cone nuts	Std.	Std.
Bolt Circles		
8 Bolt on 6.5" circle, hub piloted with 4.88" pilot	Std.	Std.
8 Bolt on 6.5" circle, hub piloted with 4.75" pilot	X	X
8 Bolt on 6.5" circle ,stud piloted with 4.75" pilot	X	X
Seals		
Unitized seal	Std.	Std.

Specifications/ Options	9K	10K/GD
Brakes		
Electric brake	X	X
Hydraulic brake, Duo-Servo	X	X
Brake flange on idler axle	Std.	Std.
Spindles		
#99 spindle	Std.	Std.
Axle Materials		
4" x .25" Round tube	Std.	
5" x .25" Round tube		Std.
Attachments		
Adjustable spring seat		X
Std. = Standard X = Optional		

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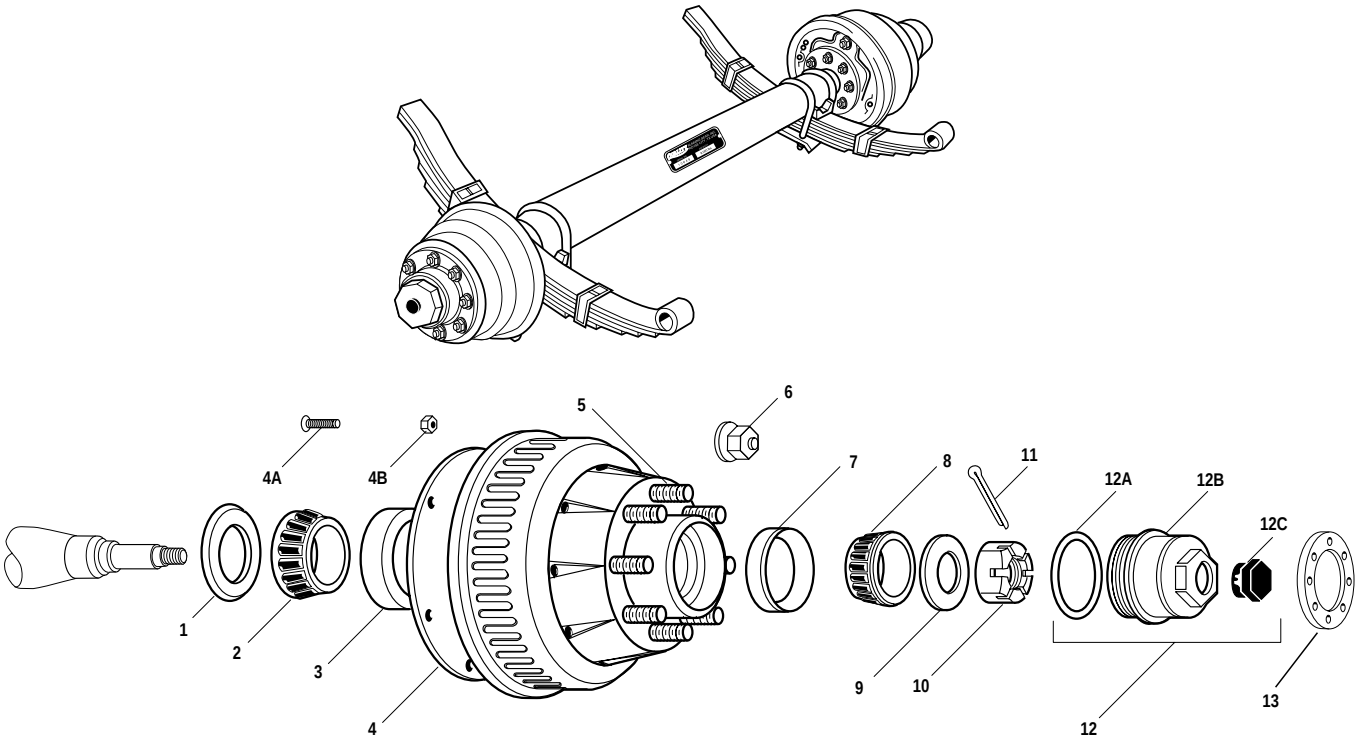
10K & 12K Axle Assemblies



10,000 LB. HEAVY DUTY AND 12,000 LB. COMPONENT PARTS

Part #	Description	Diagram #	Part #	Description	Diagram #
568217	Oil seal, unitized, 2.75"	1	JM205149	Outer bearing, 1.9685" ID	8
JM511946	Inner bearing, 2.5591" ID	2	4798	Spindle washer, 1.5"	9
JM511910	Inner race, 4.3307" OD	3	CP-3	Cotter pin, ¼" x 3"	10
1301-9	♦ Armature plate	4	4797	Spindle nut, 1½" - 12	11
FL14201	♦ Flat head bolt, ¼" - 20	4A	12011-1	Oil cap, complete assembly	12
14LN	♦ Lock nut, ¼" - 20	4B	N70238	"O" ring	12A
363910	Wheel stud, ⅝" - 18 x 2.75"	5	12011	Oil cap, 3.75" - 8	12B
568216	Swivel flange wheel nut, ⅝" - 18	6	RP-200	Oil cap plug	12C
JM205110	Outer race, 3.5433" OD	7	72-2140	Tension ring, 8 on 6.5" bolt circle	13

Note: ♦ For electric brake only

10,000 LB. HEAVY DUTY AND 12,000 LB. HUBS/DRUMS

Hub, Cupped & Studded Part #	Description	Bolt Pattern
568260	Hub and brake drum	8 on 6½"

Note: Cupped & studded hubs include the hub, wheel studs and inner & outer race/cups.

10,000 LB. HEAVY DUTY AND 12,000 LB. BRAKES

Part #	Description	Part #	Description
568255.2	Electric, 12¼" X 3½", left hand, Al-Ko	1301-13	Electric, 12¼" X 3½", left hand, Warner
568255.1	Electric, 12¼" X 3½", right hand, Al-Ko	1301-14	Electric, 12¼" X 3½", right hand, Warner
568213	Hydraulic, 12¼" X 3½", left/right hand, Al-Ko		

Note: *It is not recommended to exceed axle capacity by spring capacity.*

10K & 12K Axle Assemblies

10,000 LB. HEAVY DUTY AND 12,000 LB. HANGER KITS					
Part #	**Description**	**Springs**	**Part #**	**Description**	**Springs**
APS1025HD	Single axle	Slipper	APTT1025HD4275	Triple axle	Slipper
APT1025HD4275	Tandem axle	Slipper	APTT1025HD4850	Triple axle	Slipper
APT1025HD4850	Tandem axle	Slipper			

10,000 LB. HEAVY DUTY AND 12,000 LB. LEAF SPRINGS					
Part #	**Style**	**Length**	**Capacity**	**No. of Leaves**	**Width**
43101-56	Slipper	32.5"	5,000 lbs.	5	2.5"
4361-60	Slipper	32.5"	6,000 lbs.	6	2.5"

10,000 LB. HEAVY DUTY AND 12,000 LB. U-BOLT KITS		
Part #	**Description**	**Tube Diameter**
APUBR50	Round beam, 2.5" spring	5"

10K LBS. HEAVY DUTY & 12K TUBULAR AND TORSION AXLES – SPECIFICATIONS AND OPTIONS					
Specifications/ Options	**10K/HD**	**12K**	**Specifications/ Options**	**10K/HD**	**12K**
Lubrication			Brakes *(continued)*		
Grease Lube	X	X	Hydraulic brake, Duo-Servo	X	X
Oil bath lube	Std.	Std.	Hydraulic disc brake	X	X
Studs			Air brake	X	X
⅝" Studs	Std.	Std.	Air spring brake	X	X
¾" Studs	X		Manual slack adjusters	X	X
Swivel flange nuts	X	Std.	Automatic slack adjusters	X	X
Tension ring with ⅝" cone nuts	Std.	X	ABS sensors (6K, 7K & 8K disc only)	X	X
Bolt Circles			Brake flange on idler axle	Std.	Std.
8 Bolt on 6.5" circle, flat face with 4.88" pilot	Std.	Std.	Spindles		
8 Bolt on 6.5" circle, flat face with 4.75" pilot	X	X	#120 spindle	Std.	Std.
8 Bolt on 6.5" circle, coined with 4.75" pilot	X	X	Axle Material		
Seals			5" x .25" Round tube	Std.	
Unitized seal	Std.	Std.	5.125" x .3125"		Std.
Brakes			Attachments		
Electric brake	X	X	Adjustable spring seat	X	X

Std. = Standard X = Optional

22.5K & 25K Axle Assemblies

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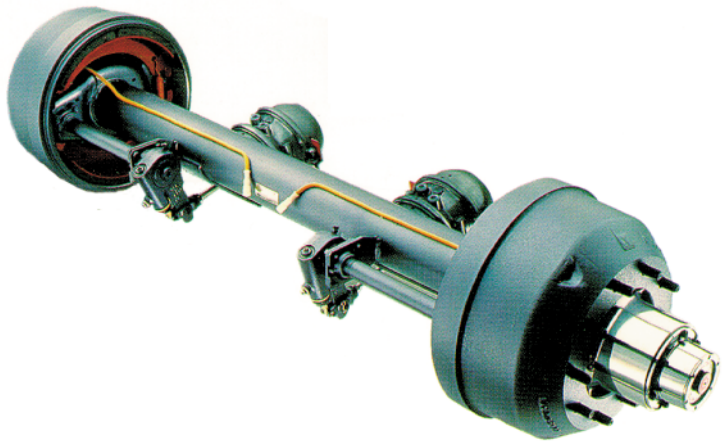


22.5 AND 25,000 LB. AXLE ASSEMBLIES – SPECIFICATIONS AND OPTIONS

Specifications/ Options	22.5K	25K
Lubrication		
Oil bath lube	Std.	Std.
Grease lube (unitized hubs only)	X	X
Studs		
¾" Studs	Std.	Std.
22mm Studs	Std.	Std.
Inner & outer dual nuts for steel inner & outer wheels	X	X
Inner & outer dual nuts for aluminum inner & outer wheels	X	X
Inner & outer dual nuts for steel inner & aluminum outer wheels	X	X
Dual nuts for super single aluminum wheels	X	X
Rim clamps & wheel nuts for cast spoke wheels	X	X
Bolt Circles		
3 Spoke cast wheel (inboard mount drum only)	X	X
5 Spoke cast wheel (inboard mount drum only)	X	X
10 Bolt on 8.75" circle, stud piloted	X	X
10 Bolt on 11.25" circle, stud piloted	X	X
10 Bolt on 285.75mm, hub piloted	X	X
Hubs and Drums		
Ductile steel hubs	X	X
Aluminum hubs	X	X
Unitized/sealed ductile hubs (10 on 11.25" circle only)	X	X
Inboard mount cast drums	X	X
Outboard mount cast drums	X	X
Inboard mount centrifuse drums	X	X
Outboard mount centrifuse drums	X	X

Specifications/ Options	22.5K	25K
Seals		
Unitized	Std.	Std.
Specialty	X	X
Brakes		
12.25" x 7.5" Quick change air brakes	X	X
16.5" x 7" Quick change air brakes	X	X
15" x 6" Disc air brakes	X	X
Type 30 service chambers	Std.	Std.
Type 30/30 service chambers (spring brakes)	X	X
28 Spline cam	Std.	Std.
10 Spline cam	X	X
Automatic slack adjusters	Std.	Std.
Manual slack adjusters	X	X
Straight slack adjusters	Std.	Std.
Curved slack adjusters	X	X
Dust shield	X	X
ABS sensor blocks and tone rings	X	X
Spindles		
Integral tapered spindles	Std.	Std.
Integral parallel spindles	X	X
Axle Materials		
5" x .5" Round tube	Std.	–
5" x .625" Round tube	X	Std.

Std. = Standard X = Optional

Note: *It is not recommended to exceed axle capacity by spring capacity.*
Suspensions listed on page B–20

Axle Components

BEARINGS AND RACES

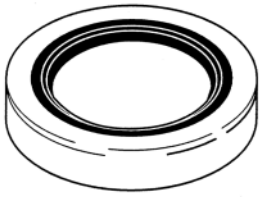
Bearing Part #	Race Part #	Application			Bearing I.D.	Race O.D.
		Spindle	Inner	Outer		
11949	11910	BT	X	X	.75"	1.781"
L-44643	L-44610	BT8	X	X	1"	1.98"
L-44649	L-44610	BT8/BT16/#84 Outer	X	X	1.063"	1.98"
LM-67048	LM-67010	#42		X	1.25"	2.328"
15123	15245	#42		X	1.25"	2.441"
14125A	14276	#42		X	1.25"	2.717"
02475	02420	#42		X	1.25"	2.688"
L-68149	L-68111	#84	X		1.378"	2.362"
25580	25520	#42	X		1.75"	2.875"
25580-T	25520-T	#99		X	1.75"	2.875"
JM205149	JM205110	#120		X	1.9685"	3.5433"
28580-T	28521-T	#99	X		2"	3.265"
JM511946	JM511910	#120	X		2.5591"	4.3307"

L-44649

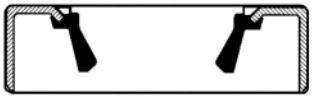
L-44610

SEALS

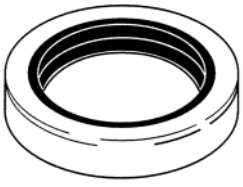
					Vendor Cross–Reference		
Part #	Type	Spindle	I.D.	O.D.	Chicago Rawhide	National	NOK
04247	Single lip	BT	1.125"	1.784"	CR11164		AF7103E1
12192VB	Single lip	BT8	1.250"	1.983"	CR12404		AF1836F0
12192TB	Double lip	BT8	1.250"	1.983"		470706	AD1836E0
15191VB	Single lip	BT16	1.50"	1.987"	CR14840		AR2266F0
15192TB	Double lip	BT16	1.50"	1.987"	CR14821		AD2267E0
171255VB	Single lip	#84	1.719"	2.565"	CR17146	442251	AF2548F0
171255TB	Double lip	#84	1.719"	2.565"	CR17144	473336	AD2548E0
10-42	Single lip	D28	1.750"	2.331"			UF0015E0
10-40	Single lip	MHU	1.938"	2.51"			AF2812E0
10-41	Nylon	MH	1.938"	2.523"			
10-01	Single lip	D42	2.125"	3.375"		440972	AF7172E1
10-10	Double lip	D42	2.125"	3.375"	CR21352	470972	AD8717E0
22333VB	Single lip	#42	2.250"	3.376"	CR22550	442109	AF3135G1
22333TBN	Double lip	#42	2.250"	3.376"	CR22558	472920	AD3135E0
370219A	Unitized	#42	2.250"	3.376"		320219EG	
23364SA	Double lip	#99	2.375"	3.630"	CR23839	455380	AA3267F0
CR27438	Unitized	#99	2.750"	3.784"	CR27438		
10-51	Unitized	D10GD	2.875"	3.880"		370150BG	
568217	Unitized	#120	3.125"	4.50"	CR31281	370014BG	
10-56	Unitized	D10	3.125"	4.506"		370014	



Single Lip Seal



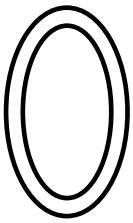
Single Lip Seal



Double Lip Seal

Double Lip Seal

Axle Components



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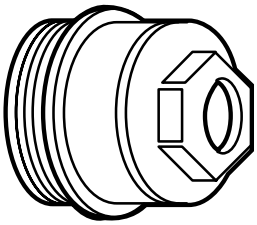


12011

RP-200

OIL CAP ASSEMBLIES AND COMPONENTS

Part #	Application	Description	Size
8001	6K - 8K QRG, Hayes, Al-Ko	Oil cap complete	2.875" - 8
22-03	6K - 9K (pre '90) Dexter	Oil cap complete	2.875" - 12
22-06	6K - 7K Dexter UTG	Oil cap complete	2.563"
D10C	9K - 10K GD QRG (pre '96)	Oil cap complete	3.5" - 14
12011-1	9K - 12K QRG (post '96), Hayes, Al-Ko	Oil cap complete	3.75" - 8
22-07	9K (post '90) - 15K Dexter	Oil cap complete	4"
801	6K - 8K QRG (pre '97), Hayes, Al-Ko	Oil cap only	2.875" - 8
21-35	6K - 8K QRG (post '97) 6K - 9K (pre '90) Dexter	Oil cap only	2.875" - 12
21-40	6K - 7K Dexter UTG	Oil cap only	2.563"
D10C1	9K - 10K GD QRG (pre '96)	Oil cap only	3.5" - 14
12011	9K - 12K QRG (post '96), Hayes, Al-Ko	Oil cap only	3.75" - 8
21-36	9K (post '90) - 15K Dexter	Oil cap only	4"
802	6K - 8K QRG, Hayes, Al-Ko	Gasket	2.875"
10-45	6K - 9K (pre '90) Dexter	Oil cap o-ring	2.875"
10-59	6K - 7K Dexter UTG	Oil cap o-ring	2.563"
N70238	9K - 12K QRG, Hayes, Al-Ko	Oil cap o-ring	3.75"
10-50	9K (post '90) - 15K Dexter	Oil cap o-ring	4"
RP-200	6K - 15K QRG, Dexter	Oil cap plug	N/A
568223	6K - 12K Hayes, Al-Ko	Oil cap plug	N/A
46-52	8K - 15K Dexter	Oil hub plug	N/A

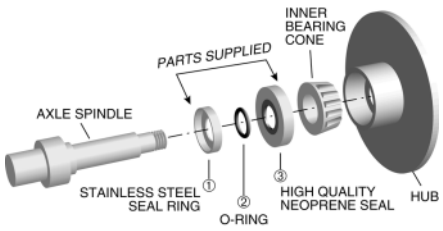
genuine Bearing Buddy®

1980

WHEEL BEARING PROTECTORS AND BRAS

Part #	Description	O.D.	Finish	Brand	Unit
BP178	Protector	1.78"	Chrome	Fulton	Pair
16255	Protector and bra	1.98"	Chrome / black	N/A	Pair
BP198	Protector	1.98"	Chrome	Fulton	Pair
BB198	Bra	1.98"	Gray	Fulton	Pair
BB198E	Bra	1.98"	Black	Fulton	Pair
BP1980-B	Protector	1.98"	Black	Kodiak	Pair
1980	Protector	1.98"	Chrome	Bearing Buddy	Pair
19-B	Bra	1.98"	Black	Bearing Buddy	Pair
BP244	Protector	2.44"	Chrome	Fulton	Pair
BB244	Bra	2.44"	Gray	Fulton	Pair
BP2717	Protector	2.717"	Chrome	N/A	Each
BB2717	Bra	2.717"	Black	N/A	Each

A high quality neoprene seal and a stainless steel wear sleeve ensures that these seals have a prolonged life. Each kit consist of 2 seals, 2 O-rings and 2 wear sleeves



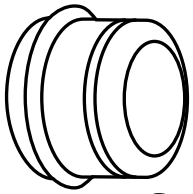
SPINDLE SEALS

Part #	Description	O.D.
SS1	"Spindle Seal" kit for BT8 spindle	1.98"
SS5	"Spindle Seal" kit for BT16 spindle	1.98"
SS2	"Spindle Seal" kit for #84 spindle	2.56"

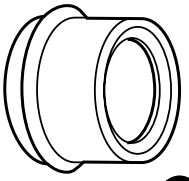
Axle Components

GREASE CAPS

Part #	Type	Size	Part #	Type	Size
21-3	Plain	1.98"	21-1-ALZP	Accu-Lube, zinc plated	2.44"
21-3-AL	Accu-Lube	1.98"	1605	Plain	2.717"
21-3-ALZP	Accu-Lube, zinc plated	1.98"	1605-AL	Accu-Lube	2.717"
21-1	Plain	2.44"	RP-100	Accu-Lube rubber plug	N/A
21-1-AL	Accu-Lube	2.44"			



21-3

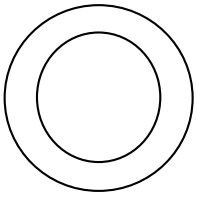


21-3-AL

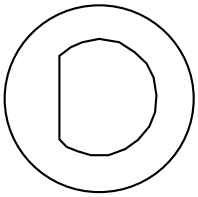
RP-100

SPINDLE WASHERS

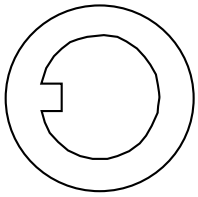
Part #	Type	Size
4753-3/4	Plain	¾"
4753-D	"D"	⅞"
4753	Plain	1"
4753-T	Tongue	1"
4753-TW	Tongue, wide	1"
93001	"D" Folding Tang	1"
5-23	"D"	1"
5-57	"D" Wide	1"
4798	Plain	1½"



4753



4758-D



4753-T

SPINDLE NUTS

Part #	Type	Size
4754-3/4	Castlelated 6 slot	¾" - 18
4754	Castlelated 6 slot	1" - 14
6-176	Castlelated 12 slot	1" - 14
4797	Castlelated 6 slot	1½" - 12

COTTER PINS

Part #	Application	Description
4755	2,000–8,000 lb. axles	⅛" x 2"
CP-3	9,000–12,000 lb. axles	¼" x 3"

4754

WHEEL BEARING GREASE

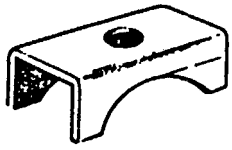
Part #	Description
JT-6-1LB	Wheel bearing grease, 1 lb.

JT-6-1LB

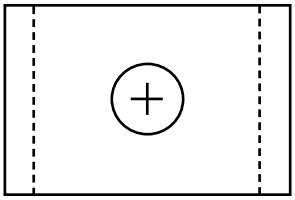
4755

SPRING PADS

Part #	Application	Spring Width
SP-1.75	1.75" Round Tube	1.75"
SP-2.375	2.375" Round Tube	1.75" - 2"
SP-2X2	2" Square or 2" x 3" Rectangular Tube	1.75" - 2"
SP-3	3" Round Tube	1.75" - 2"
SP-350	3.5" Round Tube	1.75" - 2"
SP-4	4" Round Tube	2" - 2.5"
SP-5	5" Round Tube	2.5" - 3"
SP-5-ADJ	5" Round Tube, adjustable	2.5" - 3"

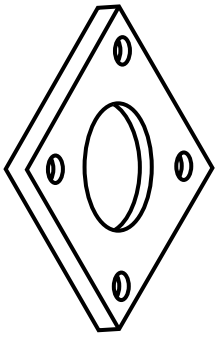


SP-2.375

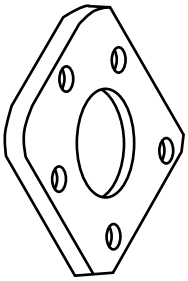


SP-2X2

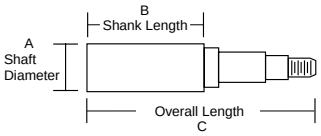
Axle Components



4-34



4-6T



BRAKE FLANGES			
Part #	**Bolt Pattern**	**Spindle**	**I.D.**
4-29	4 on 4"	BT8 / BT16	1.512" RD
4-34	4 on 4"	BT8 / BT16	1.64" RD
4-16	4 on 4"	#84	1.80" RD
4-12	4 on 4"	#84	2.275" RD
4-6T	5 on 3.875"	#42	2.75" RD
4-6A	5 on 3.875"	#42	2.12" SQ
4-6Q	5 on 3.875"	#42	2.312" RD
9045702	5 on 5.5"	#99	3.86" RD

ROUND SPINDLES								
Part #	**Type**	**Cap.**	**A**	**B**	**C**	**Inner Bearing**	**Outer Bearing**	**Seal Area**
R104BT8	BT8	1,000 lb.	1¼"	3½"	8¼"	1"	1"	1.25"
R204BT8	BT8	1,000 lb.	1½"	3½"	8¼"	1"	1"	1.25"
R104BT16-AL	BT16	1,000 lb.	1¼"	3½"	8¼"	1 1/16"	1 1/16"	1.25"
R204BT16-AL	BT16	1,000 lb.	1½"	3½"	8¼"	1 1/16"	1 1/16"	1.25"
R104BT16	BT16	1,000 lb.	1¼"	3½"	8¼"	1 1/16"	1 1/16"	1.25"
R204BT16	BT16	1,000 lb.	1½"	3½"	8¼"	1 1/16"	1 1/16"	1.50"
R20484-1.500	#84	1,750 lb.	1½"	3½"	8¼"	1⅜"	1 1/16"	1.72"
R20484-1.625	#84	1,750 lb.	1⅝"	3½"	8¼"	1⅜"	1 1/16"	1.72"
R20484	#84	1,750 lb.	1¾"	3½"	8¼"	1⅜"	1 1/16"	1.72"
R20684	#84	1,750 lb.	1¾"	6"	10¾"	1⅜"	1 1/16"	1.72"
R20484-AL	#84	1,750 lb.	1¾"	3½"	8¼"	1⅜"	1 1/16"	1.72"
R30484	#84	1,750 lb.	2"	3½"	8¼"	1⅜"	1 1/16"	1.72"
R30684	#84	1,750 lb.	2"	6"	10¾"	1⅜"	1 1/16"	1.72"
R40642	#42	3,000 lb.	2"	6"	11"	1¾"	1¼"	2.25"
R50642	#42	3,000 lb.	2¼"	6"	11"	1¾"	1¼"	2.25"
R750399	#99	4,500 lb.	2½"	2⅞"	9¾"	1"	1¾"	2.375"
ROUND CORNER SQUARE SPINDLES								
SP204BT8	BT8	1,000 lb.	1½"	3⅜"	8¼"	1 1/16"	1 1/16"	1.25"
SP204BT16	BT16	1,000 lb.	1½"	3⅜"	8¼"	1 1/16"	1 1/16"	1.50"
SP35684	#84	1,750 lb.	1¾"	6"	10 13/16"	1⅜"	1 1/16"	1.72"
SP20484	#84	1,750 lb.	1½"	3⅜"	8¼"	1⅜"	1 1/16"	1.72"
SP50642	#42	3,000 lb.	2"	6"	11"	1¾"	1¼"	2.25"

FAST • FRIENDLY • FLEXIBLE

Axle Components

End units are used extensively in the marine industry. They are available in numerous configurations – straight or drop with electric, hydraulic or hydraulic disc. All end units are assembled, lubed and ready for mounting on your axle tube. Listed are straight spindle assemblies, however, ask your branch for other available options.

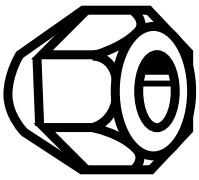
END UNITS

Part #	Capacity (ea)	Spindle #	Bolt Circle	Brake	Lube
R104BT8-440	1,000 lbs.	R104BT8	440	N/A	Plain
R104BT8-545	1,000 lbs.	R104BT8	545	N/A	Plain
R104BT16-440	1,000 lbs.	R104BT16	440	N/A	Plain
R104BT16-440A	1,000 lbs.	R104BT16-AL	440	N/A	Accu-Lube
R104BT16-545	1,000 lbs.	R104BT16	545	N/A	Plain
R104BT16-545A	1,000 lbs.	R104BT16-AL	545	N/A	Accu-Lube
R20484-545	1,750 lbs.	R20484	545	N/A	Plain
R20484-545A	1,750 lbs.	R20484-AL	545	N/A	Accu-Lube
R20484-550	1,750 lbs.	R20484	550	N/A	Accu-Lube
R20484-550A	1,750 lbs.	R20484-AL	550	N/A	Accu-Lube
R20484F-545-ALEL	1,750 lbs.	R20484-AL-F	545	LH Elect.	Accu-Lube
R20484F-545-ALER	1,750 lbs.	R20484-AL-F	545	RH Elect.	Accu-Lube
R20484F-545-ALHL	1,750 lbs.	R20484-AL-F	545	LH Hyd.	Accu-Lube
R20484F-545-ALHR	1,750 lbs.	R20484-AL-F	545	RH Hyd.	Accu-Lube
R20484F-545-ALFL	1,750 lbs.	R20484-AL-F	545	LH Hyd. FB	Accu-Lube
R20484F-545-ALFR	1,750 lbs.	R20484-AL-F	545	RH Hyd. FB	Accu-Lube
R20484F-545-ALDP	1,750 lbs.	R20484-AL-F	545	Plain Hyd. Disc	Accu-Lube
R20484F-545-ALDE	1,750 lbs.	R20484-AL-F	545	E-Coat Hyd. Disc	Accu-Lube

Rule of Thumb

1/64	.015625	33/64	.515625
1/32	.03125	17/32	.53125
3/64	.046875	35/64	.546875
1/16	.0625	9/16	.5625
5/64	.078125	37/64	.578125
3/32	.09375	19/32	.59375
7/64	.109375	39/64	.609375
1/8	.125	5/8	.625
9/64	.140625	41/64	.640625
5/32	.15625	21/32	.65625
11/64	.171875	43/64	.671875
3/16	.1875	11/16	.6875
13/64	.203125	45/64	.703125
7/32	.21875	23/32	.71875
15/64	.234375	47/64	.734375
1/4	.25	3/4	.75
17/64	.265625	49/64	.765625
9/32	.28125	25/32	.78125
19/64	.296875	51/64	.796875
5/16	.3125	13/16	.8125
21/64	.328125	53/64	.828125
11/32	.34375	27/32	.84375
23/64	.359375	55/64	.859375
3/8	.375	7/8	.875
25/64	.390625	57/64	.890625
13/32	.40625	29/32	.90625
27/64	.421875	59/64	.921875
7/16	.4375	15/16	.9375
29/64	.453125	61/64	.953125
15/32	.46875	31/32	.96875
31/64	.484375	63/64	.984375
1/2	.5	1	1

Axle Components



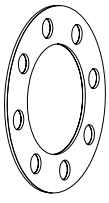
4756

4756-C

568216

13-3005L

13-3029L



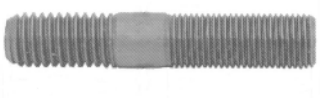
72-2140

WHEEL ATTACHING HARDWARE

Part #	Type	Size
4756	60 Degree cone nut	½" - 20
4756-C	60 Degree cone nut, chrome	½" - 20
4756-SS	60 Degree cone nut, stainless steel	½" - 20
40912	60 Degree locking cone nut, chrome (4 pack with key)	½" - 20
7-40	60 Degree cone bolt	½" - 20
4756-1	60 Degree cone nut	9/16" - 18
4756-2	90 Degree cone nut	9/16" - 18
13-8002	Flat hex nut	5/8" - 11
X1048	90 Degree cone nut	5/8" - 18
568216	Two piece flange nut	5/8" - 18
13-8004	Flat hex nut	¾" - 10
9065603	Two piece flange nut	¾" - 16
13-3005L	Inner ball seat, steel inner/steel outer wheel LH	¾" - 16
13-3005R	Inner ball seat, steel inner/steel outer wheel RH	¾" - 16
13-3029L	Inner ball seat, steel inner/aluminum outer wheel LH	¾" - 16
13-3029R	Inner ball seat, steel inner/aluminum outer wheel RH	¾" - 16
13-3026L	Inner ball seat, aluminum inner/aluminum outer wheel LH	¾" - 16
13-3026R	Inner ball seat, aluminum inner/aluminum outer wheel RH	¾" - 16
13-3012L	Outer ball seat, steel wheel LH	1⅛" - 16
13-3012R	Outer ball seat, steel wheel RH	1⅛" - 16
13-3055L	Outer ball seat, aluminum wheel LH	1⅛" - 16
13-3055R	Outer ball seat, aluminum wheel RH	1⅛" - 16
13-3052	Two piece flange nut	M22X1.5
72-2140	Dual wheel tension ring	8 on 6.5" Circle

WHEEL STUDS

Part #	Application	Type	Size
4758-Z	2K QRG	Drive-In	½" - 20 x 1.625"
4759-Z	3.5K - 7K QRG idlers / 3.5K QRG drums	Drive-In	½" - 20 x 1.8125"
7-122	3.5K - 7K Dexter	Drive-In	½" - 20 x 1.8125"
25-53	2K Dexter	Screw-In	½" - 20 x 1.8125"
4759-20-Z	3.5K - 7K QRG idlers / 3.5K QRG drums	Drive-In	½" - 20 x 2"
4759-25-Z	5.2K - 7K QRG drums	Drive-In	½" - 20 x 2.5"
7-132	8K Dexter	Drive-In	9/16" - 18 x 2.3125"
4759-28	8K QRG	Drive-In	9/16" - 18 x 3"
90737	10K - 12K QRG, Hayes, Al-Ko	Drive-In	5/8" - 18 x 2.75"
7-115	9K - 12K Dexter	Drive-In	5/8" - 18 x 3.125"
4759-30	9K - 10K gd QRG	Drive-In	5/8" - 18 x 3.25"



Screw-In

Drive-In