

# Surge Brake Trailer

## Safety, Operation, Maintenance & Parts Manual

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TRB-S

Trailer Option

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**Safety is our #1 concern!** Read and understand all safety information and instructions before operating, setting up or maintaining this machine.

*September 2008*

*Form #794*

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## SECTION 1 TIRE SAFETY

### 1.1 Tire labeling

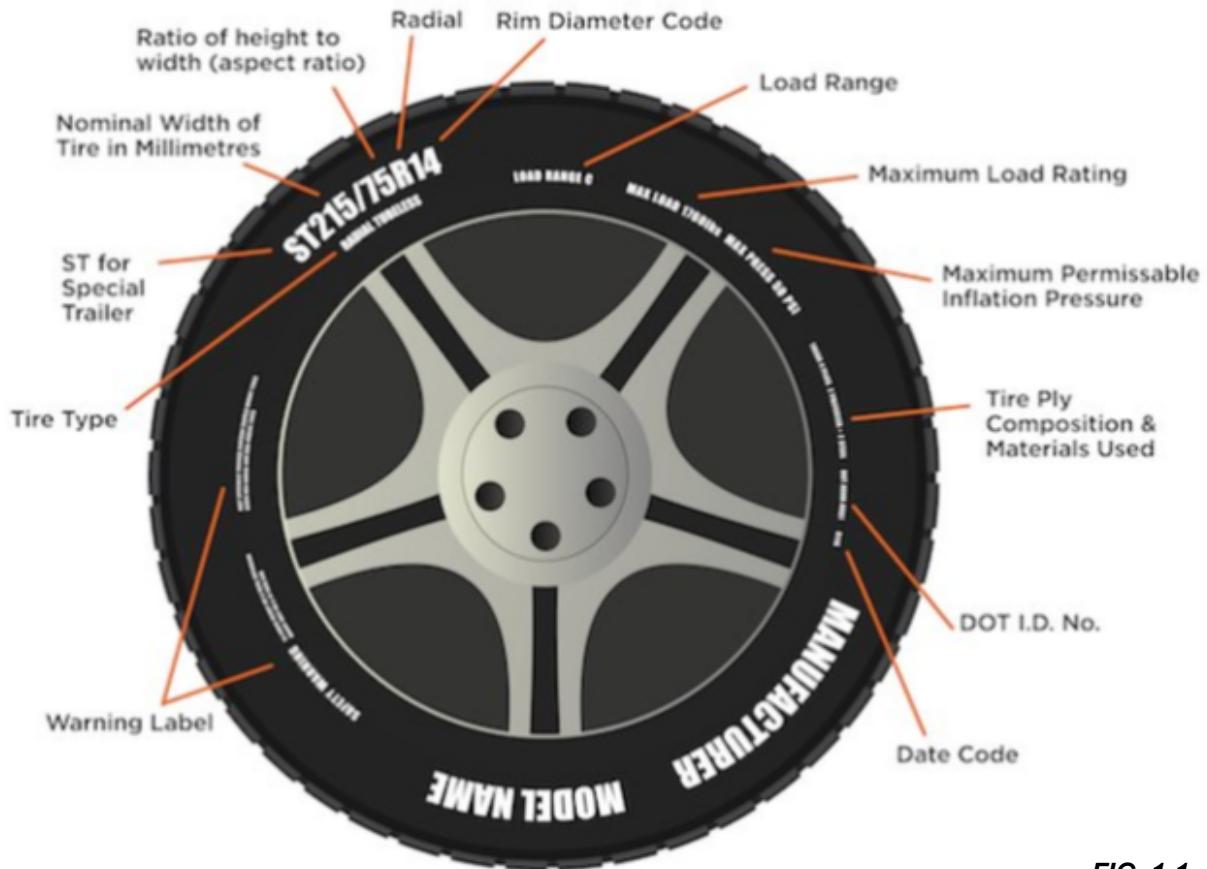


FIG. 1-1

#### Tire markings

**TIRE CLASS AND SIZE:** (Example: ST215/75R14)

- **ST** stands for Special Trailer tire. ST trailer tires are built to tow heavy loads, withstand excessive heat, and reduce sway.
- **215** is tire width in millimeters;
- **75** is the aspect ratio, or ratio of height to width;
- **R** is type of construction (radial, in the example)
- **14** is rim diameter in inches.

**TIRE TYPE** Below the tire size is either 'radial' or 'bias.' Radial tires (or 'radial-ply tires') are constructed with polyester and/or nylon plies that run across the tire perpendicularly, and sometimes include steel belts that run under the tread. Bias-ply tires Bias-ply cords layer in a criss-cross pattern from sidewall to sidewall, and they are also sometimes reinforced with a steel belt.

**LOAD RANGE** Load range indicates the type of load a tire is designed to support at a specific inflation pressure. Trailer tires typically have C, D, or E load ranges. A load range 'C' tire, for example, is at its peak load capacity—possibly 1600 pounds—when it's inflated to its maximum pressure of 50 PSI. A load range 'C' tire at 25 PSI might be able to support a load of 990 pounds, while at 40 PSI, that capacity could be 1300 pounds.

**MAXIMUM LOAD RATING** Load rating or load index indicates the weight a tire can safely carry at its maximum air pressure. In the example, at its maximum air pressure of 50 PSI (cold), a load range 'C' tire might have a load rating of 1760 pounds.

**MAXIMUM PRESSURE** Maximum pressure (when the tires are cold) needed for the tires to carry the maximum load; measured in PSI.

## Identifying tires

Tires are required to have a Tire Identification Number (TIN) begin with the letters "DOT," followed by eight to thirteen characters that can be used to identify the manufacturing location, tire size, and manufacturer's specifications, along with the week and year the tire was manufactured. DOT Tire Identification Numbers are commonly but erroneously referred to as the tire's serial number, but it actually identifies production *batches*, not individual items.

Regulations also require the entire DOT Tire Identification Number to be branded on one sidewall, while only the letters "DOT" and the first digits of the Tire Identification Number must be branded onto the opposite sidewall. Therefore it is possible to see a Tire Identification Number that appears incomplete, yet simply requires looking at the tire's other sidewall to find the complete Tire Identification Number.

### Tire Identification Number

**DOT AND DATE CODES** Department of Transportation identifier will include 10-12 numbers following 'DOT.' The first six to eight numbers indicate the manufacturer's code, where the tire was manufactured and the tire size.

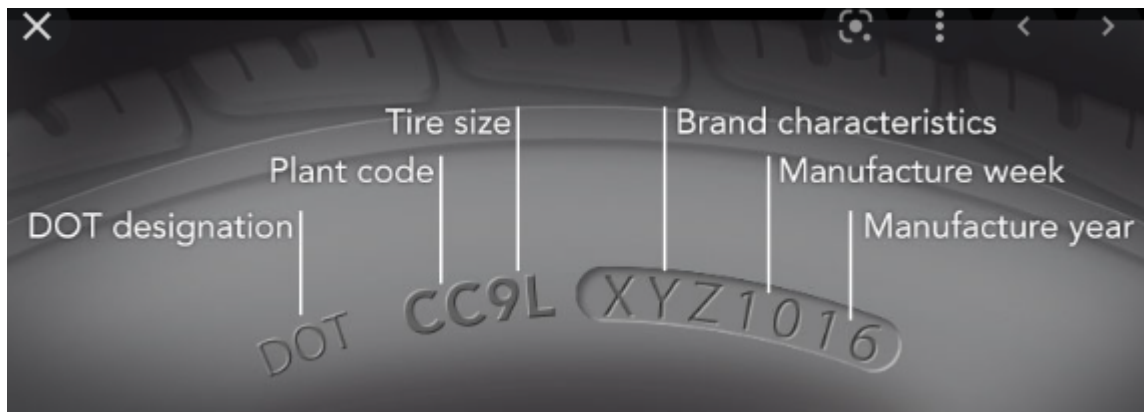


FIG. 1-2

## 1.2 Recommended tire inflation pressure

### Recommended cold tire inflation pressure

The cold inflation pressure is the contained air pressure of a tire that would occur at an indexed temperature of 68°F or 20°C. This indexed temperature is based on the ideal ambient operating conditions for the tire.

TABLE 1-1 AMBIENT AIR TEMPERATURE PRESSURE ADJUSTMENT

Listed Pressure at 68°F (20°C)		10 psi	20 psi	30 psi	40 psi	50 psi	60 psi	70 psi	80 psi	90 psi	100 psi
104°F	40°C	11.7 psi	22.4 psi	33.1 psi	43.7 psi	54.4 psi	65.1 psi	75.8 psi	86.5 psi	97.1 psi	107.8 psi
86°F	30°C	10.8 psi	21.2 psi	31.5 psi	41.9 psi	52.2 psi	62.5 psi	72.9 psi	83.2 psi	93.6 psi	103.9 psi
68°F	20°C	10.0 psi	20.0 psi	30.0 psi	40.0 psi	50.0 psi	60.0 psi	70.0 psi	80.0 psi	90.0 psi	100.0 psi
50°F	10°C	9.2 psi	18.8 psi	28.5 psi	38.1 psi	47.8 psi	57.5 psi	67.1 psi	76.8 psi	86.4 psi	96.1 psi
32°F	0°C	8.3 psi	17.6 psi	26.9 psi	36.3 psi	45.6 psi	54.9 psi	64.2 psi	73.5 psi	82.9 psi	92.2 psi
14°F	-10°C	7.5 psi	16.4 psi	25.4 psi	34.4 psi	43.4 psi	52.4 psi	61.3 psi	70.3 psi	79.3 psi	88.3 psi
-4°F	-20°C	6.6 psi	15.3 psi	23.9 psi	32.5 psi	41.2 psi	49.8 psi	58.4 psi	67.1 psi	75.7 psi	84.3 psi
-22°F	-30°C	5.8 psi	14.1 psi	22.4 psi	30.7 psi	39.0 psi	47.3 psi	55.5 psi	63.8 psi	72.1 psi	80.4 psi
-40°F	-40°C	4.9 psi	12.9 psi	20.8 psi	28.8 psi	36.8 psi	44.7 psi	52.7 psi	60.6 psi	68.6 psi	76.5 psi

# 1 Tire Safety

The vehicle tire inflation pressure label and location

Listed Pressure at 68°F (20°C)		69 kPa	138 kPa	207 kPa	276 kPa	345 kPa	414 kPa	483 kPa	551 kPa	620 kPa	689 kPa
104°F	40°C	81 kPa	154 kPa	228 kPa	301 kPa	375 kPa	449 kPa	522 kPa	596 kPa	670 kPa	743 kPa
86°F	30°C	75 kPa	146 kPa	217 kPa	289 kPa	360 kPa	431 kPa	502 kPa	574 kPa	645 kPa	716 kPa
68°F	20°C	69 kPa	138 kPa	207 kPa	276 kPa	345 kPa	414 kPa	483 kPa	551 kPa	620 kPa	689 kPa
50°F	10°C	63 kPa	130 kPa	196 kPa	263 kPa	329 kPa	396 kPa	463 kPa	529 kPa	596 kPa	662 kPa
32°F	0°C	57 kPa	122 kPa	186 kPa	250 kPa	314 kPa	378 kPa	443 kPa	507 kPa	571 kPa	635 kPa
14°F	-10°C	52 kPa	113 kPa	175 kPa	237 kPa	299 kPa	361 kPa	423 kPa	485 kPa	546 kPa	608 kPa
-4°F	-20°C	46 kPa	105 kPa	165 kPa	224 kPa	284 kPa	343 kPa	403 kPa	462 kPa	522 kPa	581 kPa
-22°F	-30°C	40 kPa	97 kPa	154 kPa	211 kPa	269 kPa	326 kPa	383 kPa	440 kPa	497 kPa	554 kPa
-40°F	-40°C	34 kPa	89 kPa	144 kPa	199 kPa	253 kPa	308 kPa	363 kPa	418 kPa	473 kPa	527 kPa

## The vehicle tire inflation pressure label and location

The generic bilingual tire pressure label appears as in FIG. 1-3. The label on the vehicle has information specific to the trailer filled in

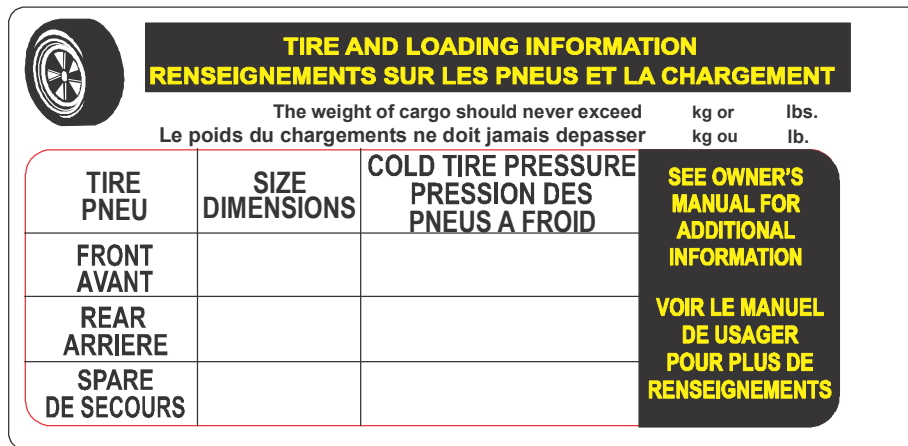


FIG. 1-3

The label is placed near the VIN placard, toward the **front left side** of the trailer.

General area of VIN placard and tire pressure label for Wood-Mizer mill trailers.



FIG. 1-4

## Consequences of tire under-inflation

Underinflated tires and overloaded vehicles are a major cause of tire failure. Tire inflation effects a vehicle's

- steering,
- stopping,
- traction, and
- load-carrying capability.

To avoid flat tires and other types of tire failure, you should

- maintain proper tire pressure,
- observe tire and vehicle load limits,
- avoid road hazards, and
- regularly inspect your tires.

### Proper inflation

#### CHECK TIRE PRESSURE

Use a tire pressure gauge, which you can be purchased at most service stations or auto parts stores. Check the pressure when the tires are **COLD**, as the friction from driving affects the pressure. If driven recently, wait at least three hours for the tires to cool down.



**COMMON TIRE PRESSURE GAUGES**

**FIG. 1-5**

1. Remove the cap from the air valve on the tire, and put it somewhere you won't lose it.
2. Press the tire gauge against the open valve stem momentarily.
3. Read the air pressure gauge.
4. Compare this number with the recommended tire pressure.
5. Inflate/release air as needed.
6. Replace the tire's air valve cap.
7. Repeat this process for each tire.

#### INFLATE YOUR TRAILER'S TIRES

1. Park close enough to the air compressor so you can reach all tires with the hose.
2. If the valve caps are still on, remove them.
3. Press the hose nozzle down on the valve stem.

**NOTE:** You should notice the tire inflating and feel air flowing through the hose. If not, check to ensure the hose is securely placed on the valve stem.

4. Remove the hose fitting.
5. Check the air pressure as described above.
6. Repeat steps 3- 5 as needed until the tire is inflated to the correct psi.



7. Repeats steps 2-5 for the vehicle's other tires.
8. Once the tires are inflated properly, replace the valve caps.

### RELEASE AIR FROM TIRES

Overinflated tires can lead to poor handling, such as skidding and hydroplaning.

1. Briefly press the small dot or bead on the back of the tire pressure gauge into the center of the valve stem on the tire.

**NOTE:** You should hear the air escaping the tire.

2. Use the gauge to check the tire pressure.
3. Repeat these steps until you've released enough air to reach the correct psi.

### WHEN TO CHECK TIRE PRESSURE

Use Table 1-1 to adjust the recommended cold tire pressure to the ambient temperature. Check tire pressure monthly.

- Most tires may naturally lose air over time.
- Tires can lose air suddenly if you drive over a pothole or other object or if you strike the curb when parking.
- With radial tires, it is usually not possible to determine underinflation by visual inspection.

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## 1.3 Glossary

**ALPHA CHARACTER** A single alphabetical character from A to Z.

**BEAD SEPARATION** A breakdown of bond between components in the bead area.

**BEAD** That part of the tire made of steel wires, wrapped or reinforced by ply cords, that is shaped to fit the rim.

**CARCASS PLY** A ply that extends to the beads.

**CARCASS** The tire structure, except tread and sidewall rubber.

**CHUNKING** The breaking away of pieces of the tread or sidewall.

**COLD TIRE PRESSURE** The air pressure in a tire at ambient temperature, **not having been driven for the at least 3 hours**.

**CORD SEPARATION** Cord parting away from adjacent rubber compounds.

**CORD** The strands that form the plies in the tire.

**CRACKING** Any parting within the tread, sidewall, or innerliner of the tire extending to cord material.

**CURB WEIGHT** The weight of a motor vehicle with standard equipment including the maximum capacity of fuel, oil, and coolant, and, if so equipped, air conditioning and additional weight of optional engine.

**DEEP TREAD RADIAL** A deep tread radial tire is one having a minimum tread depth of 14.3 mm (18/32 inch or 0.5625 inch) or greater.

**DOT SYMBOL** The letters "DOT" are part of the DOT serial number. This is the manufacturer's certification that the tire or rim meets or exceeds the requirements of FMVSS Nos. 110 and 139.

**DOT TIRE IDENTIFICATION NUMBER** Number appearing on the sidewall of the tire near the rim required by 49 CFR Part 574.5 which identifies the manufacturer's identification mark, tire size, tire type code and date of manufacture. See Fig. 1-2.

**EXTRA LOAD TIRE** A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire.

**FIELDS** Any group of letters and numbers that have significance or meaning.

**GAWR** The Gross Axle Weight Rating (GAWR) means the value specified by the vehicle manufacturer as the load-carrying capacity of a single axle system, as measured at the tire-ground interfaces.

**GROOVE** The space between two adjacent tread ribs.



**GVWR** The Gross Vehicle Weight Rating (GVWR) means the value specified by the manufacturer as the loaded weight of a single vehicle.

**INNERLINER SEPARATION** The parting of the innerliner from cord material in the carcass.

**INNERLINER** The layer(s) forming the inside surface of a tubeless tire that contains the inflating medium within the tire.

**INTENDED OUTBOARD SIDEWALL** (1) The sidewall that contains a whitewall, bears white lettering or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same molding on the other sidewall of the tire; or (2) The outward facing sidewall of an asymmetrical tire having a particular side that must always face outward when mounted on a vehicle.

**LIGHT VEHICLE TIRE** A new, pneumatic, radial tire intended for use on motor vehicles (other than motorcycles and low speed vehicles) that have a gross vehicle weight rating (GVWR) of 10,000 pounds or less and were manufactured after 1975.

**LOAD RATING** The maximum load a tire is rated to carry for a given inflation pressure.

**MAXIMUM LOAD RATING** The load rating at the maximum permissible inflation pressure for that tire.

**MAXIMUM INFLATION PRESSURE** The maximum cold inflation pressure needed for your tire to support the weight of its *maximum load-carrying capacity*.

**MEASURING RIM** The rim on which a tire is fitted for physical dimension requirements.

**NHTSA/OVSC** National Highway Traffic Safety Administration, Office of Vehicle Safety Compliance (Canada).

**OPEN SPLICE** Any parting at any junction of tread, sidewalls, or innerliner that extends to cord material.

**OUTER DIAMETER** The overall diameter of an inflated new tire.

**OVERALL WIDTH** The linear distance between the exteriors of the sidewalls of an inflated tire, including elevations due to marking, decorations, or protective bands or ribs.

**PLY** A layer of rubber-coated parallel cords.

**PLY SEPARATION** A parting or rubber compound between adjacent plies.

**PNEUMATIC TIRE** A mechanical device made of rubber, chemicals, fabric, steel, or other materials, which, when mounted on an automotive wheel, provides the traction and contains the gas or fluid that sustains the load.

**RADIAL PLY TIRE** A pneumatic tire in which the ply cords that extend to the beads are laid at substantially 90° to the centerline of the tread.

**RECOMMENDED INFLATION PRESSURE** The cold inflation pressure provided on the Tire Information label and on the VIN tag.

**REINFORCED TIRE** A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire.

**RESPONSIVE TEST** A special test initiated through a complaint, field inspection, failed standard test, or COTR discretion.

**RIM** A metal support for a tire or a tire and tube assembly upon which the tire beads are seated.

**RIM DIAMETER** Nominal diameter of the bead seat.

**RIM SIZE DESIGNATION** Rim diameter and width.

**RIM TYPE DESIGNATION** The industry or manufacturer's designation for a rim by style or code. **RIM WIDTH** Nominal distance between rim flanges.

**SECTION WIDTH** The linear distance between the exteriors of an inflated tire's sidewalls, excluding elevations due to marking, decoration, or protective bands.

**SIDEWALL** That portion of a tire between the tread and the bead.

**SIDEWALL SEPARATION** The parting of the rubber compound from the cord material in the sidewall.

**SIZE FACTOR** The sum of the section width and the outer diameter of a tire determined on the test rim.

**SNOW TIRE** A snow tire means a tire that attains a traction index equal to or greater than 110, compared to the ASTM E-1136 Standard Reference Test Tire, when using the snow traction test as described in ASTM F-1805-00, Standard Test Method for

## **1** Tire Safety

*Tire care, maintenance, and safety practices*

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Single Wheel Driving Traction in a Straight Line on Snow- and Ice-Covered Surfaces, and which is marked with an Alpine Symbol specified in S5.5(i) of FMVSS No. 139 on at least one sidewall.

**TREAD** That portion of a tire that comes into contact with the road.

**TREAD RIB** A tread section running circumferentially around a tire.

**TREAD SEPARATION** Pulling away of the tread from the tire carcass.

**TREADWEAR INDICATORS (TWI)** Projections within the principal grooves designed to give a visual indication of the degree of wear of the tread.

**UVW** The Unloaded Vehicle Weight (UVW) is the weight of a vehicle with maximum capacity of all fluids necessary for vehicle operation, but without cargo, occupants, or accessories that are ordinarily removed from the vehicle when they are not in use.

**VEHICLE NORMAL LOAD ON THE TIRE** The vehicle normal load on the tire means that load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight and dividing by 2.

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### **1.4 Tire care, maintenance, and safety practices**

1. Check your cold tire pressure at least once a month (See [Proper inflation](#))
2. Visually inspect your tires
  - 1). Check the tread at least once a month for excessive or uneven wear.
  - 2). Measure tread depth in three locations across the tire's tread: (1) outer edge, (2) center, and (3) inside edge.

**NOTE:** Accurate tread depth measurements are made with a simple tread depth gauge available at any parts store.  
--Or you can use the quarter (coin) method.  
Insert a quarter into a tread groove with the top of Washington's head facing down.  
If the top of his head is not visible, your tires have at least 4/32" of tread and are fine for continued use. If you can see above the top of Washington's head, replace the tire.
  - 3). Inspect for over inflation: wear primarily in the center of the tread, with less wear at the tire's edges.
  - 4). Inspect for under inflation: wear primarily on both edges of the tire tread, with less wear in the center.
  - 5). Inspect for tread wear on one edge of the tire which occurs when the wheels are out of alignment.
  - 6). Inspect for erratic tread wear, "cupping," caused by the wheel out of balance, or suspension components need to be replaced.
  - 7). Inspect for raised portion of the tread or sidewall which may indicate that one of the belts in the tire carcass has separated from those next to it.
3. Have your alignment checked every year.
4. Check and correct your tire balance.

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### **1.5 Vehicle load limits**

**NOTICE** Wood-Mizer trailers are not intended to carry any occupants or cargo.

## SECTION 2 SURGE BRAKE HITCH



**DANGER!** The hitch and safety chains must be secure before towing the sawmill. Always connect the break-away cable to the vehicle when towing the sawmill. Failure to do so may result in serious personal injury and/or severe machine damage.

**DANGER!** Brake and light connections must be working properly before towing the sawmill. Failure to do so may result in serious personal injury and/or severe machine damage. Make sure you have complied with all applicable Federal, State and Local motor vehicle safety laws.

**DANGER!** Chock the mill to prevent movement before unhitching it from the towing vehicle. Failure to do so may result in serious injury or death.



**WARNING!** Always check trailer tires for proper inflation before towing sawmill. Failure to do so may lead to tire failure resulting in property damage and/or serious injury or death.

### 2.1 Operation



**IMPORTANT!** Your vehicle must be equipped with a Class 2 hitch with a solid 2" ball (not two-piece) and rated for at least 3500 pounds (1588 kg). The hitch must be correctly mounted to the towing vehicle so that it will be able to pull this type of load.

1. Pull the mill behind the towing vehicle and place the hitch over the ball coupling on your vehicle.
2. Adjust the coupler so it is as tight as possible on the ball and the locking lever can still be opened and closed.
3. Flip the locking handle upward, ensuring the bracket underneath firmly clamps around the ball.
4. Secure the locking handle with the safety pin.



**DANGER!** Hitch bracket must be securely fastened around ball before towing the sawmill. Ball must be completely engaged by the hitch bracket and securely locked in place. Use the hitch only with the specified ball size.

5. Cross the safety chains underneath the hitch and hook to the vehicle.

The chains must be connected so that there is still slack in the chains when the vehicle is turned sharply in either direction.



**DANGER!** Your hitch must have adequate safety chain hookups. Do not use eyebolts for safety chain hook-up. Safety chains should be hooked to bumper of vehicle so that each chain would pull the trailer equally in the event the hitch became disengaged.

6. Connect the surge brake activator cable to the vehicle.

**NOTE:** This cable should be connected in case the hitch becomes unhooked and the safety chains fail. The surge brake activator cable would then activate the braking mechanism. There should be enough slack in the brake cable that the brake won't engage until the safety chains are stretched tight.

7. Connect the light wiring harness plug from the sawmill to the receptacle on your vehicle. Check signals and brake lights.
8. Raise the front outrigger.

9. Recheck that all loose items are removed or secured (such as Resaw Option, Shingle/Lapsiding Option, cant hooks, etc.).
10. The hitch on the mill is adjustable. It should be raised or lowered to let the mill travel horizontal to ground level. Adjust by removing the two mounting bolts. Then slide the hitch tube up or down to new set of holes. Replace bolts and nuts.

## SECTION 3 MAINTENANCE

1. Clean and repack the trailer axle wheel bearings with lithium grease every 12 months or 12,000 miles (19,308 km), whichever comes first.
2. Make sure that the trailer tires are correctly inflated to the pressure shown on the tire.



**CAUTION!** Always check trailer tires for proper inflation before towing sawmill. Failure to do so may result in machine damage.

3. Check the adjustment of the trailer hitch coupler bracket frequently and adjust if necessary. Replace any bent or otherwise damaged parts before using the hitch. Use only parts provided by the hitch manufacturer for this hitch model.
4. The trailer brakes should be adjusted as follows:
  - after the first 200 miles of operation when the brake shoes and drums have “seated,”
  - at 3,000 mile intervals,
  - or as use and performance requires.

The brakes should be adjusted in the following manner:

1. Jack up the trailer and secure on adequate capacity jack stands. Follow the trailer manufacturer's recommendations for lifting and supporting the unit. Make sure the wheel and drum rotates freely.



**CAUTION!** Do not lift or support trailer on any part of the axle or the suspension system. Never crawl under your trailer unless it is resting on properly placed jack stands.

2. Remove the adjusting hole cover from the adjusting slot on the bottom of the brake backing plate.
3. With a screwdriver or standard adjusting tool, rotate the star wheel of the adjuster assembly to expand the brake shoes. Adjust the brake shoes out until the pressure of the linings against the drum makes the wheel very difficult to turn. **NOTE:** For drop spindle axles, a modified adjusting tool may be necessary.
4. Rotate the star wheel in the opposite direction until the wheel turns freely with a slight lining drag.
5. Replace the adjusting hole cover and lower the wheel to the ground.
6. Repeat the above procedure on all brakes. For best results, the brakes should all be set at the same clearance.

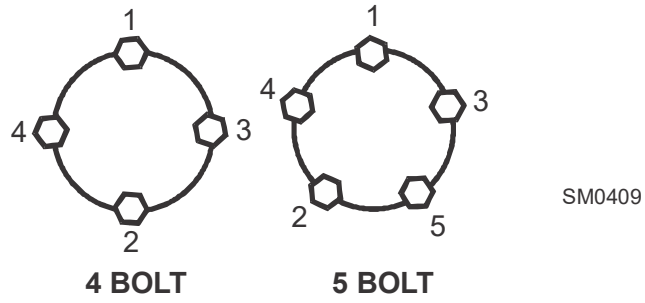
The wheel nut torque should be 90lbs.-ft. Tighten in 3 stages.

The wheel torque requirements are shown below.

Wheel Torque Sequence			
Size	1st Stage	2nd Stage	3rd Stage
12"	25	35	50
13"	25	35	50
14"	25	50	90
15"	25	50	90
16"	25	50	90

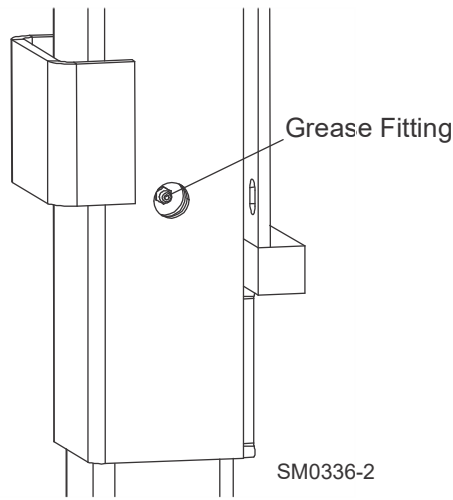
**TABLE 3-1**

Tighten bolts or nuts in the sequence shown for Wheel Torque Requirements.



**FIG. 3-1**

IF applicable, grease the Fine Adjust Outriggers (FAOs) every 200 hours of operation or once a month, whichever comes first. Use one squeeze of a NLGI No. 2 grade lithium grease from a grease gun to lubricate the outrigger and remove any sawdust.

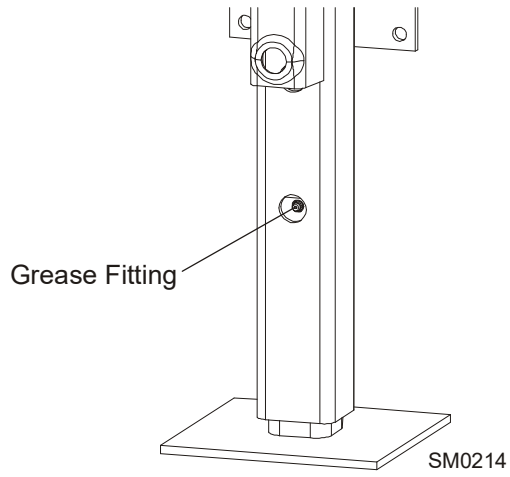


**FIG. 3-2**

Pre-2008 Style Fine Adjust Outriggers (Optional)

If applicable, grease the Fine Adjust Outriggers (FAOs) every 200 hours of operation or once a month, whichever comes first. Use one squeeze of a NLGI No. 2 grade lithium grease from a grease gun to lubricate the outrigger and remove any sawdust.

To access the outrigger grease fitting, raise the outrigger base all the way. The grease fitting will be accessible through the lowest outrigger hole.

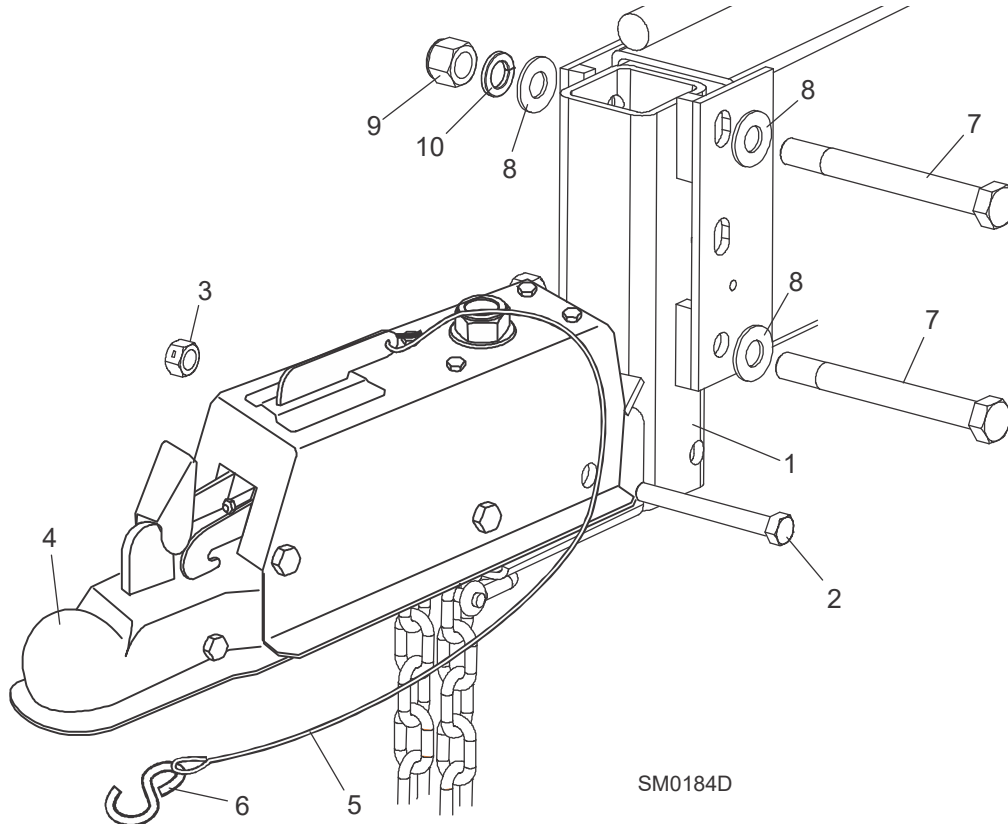


**FIG. 3-3**



## SECTION 4 PARTS LISTS

### 4.1 Trailer Hitch Assembly, Surge Brake



REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.
1	<b>HITCH WELDMENT, SURGE BRAKE</b>	015398	1
	Chain, Safety w/Hook	A07563	2
2	Bolt, 1/2-13 X 4 1/2" Hex Head Grade 5	F05008-35	2
3	Nut, 1/2-13 Hex Nylon Lock	F05010-8	2
4	<b>ACTUATOR, DICO SURGE BRAKE HITCH</b>	P09840	1
	Bolt, Surge Brake Latch	P10119	1
	Bracket, Surge Brake Latch (Lever Hitch)	P12816	1
	Spring, Surge Brake Latch (Lever Hitch)	P12814	1
5	Cable Assembly, Surge Brake Safety (Lever Hitch)	P12815	1
6	Hook, Surge Brake Safety Cable	P12075	1
	Damper, Surge Brake	P10124	1
	Fitting, Surge Brake Hitch Line	P10370	1
7	<b>BOLT, 58-11 X 6" HEX HEAD GRADE 5</b>	F05009-22	2

<b>8</b>	<b>WASHER, 5/8" SAE FLAT</b>	F05011-5	4	
<b>9</b>	<b>NUT, 5/8-11 NYLON LOCK</b>	F05010-34	2	
<b>10</b>	<b>WASHER, 5/8" SPLIT LOCK</b>	F05011-27	2	
	<b>TOWING EXTENSION KIT (NOT SHOWN, OPTIONAL)</b>	K12571	1	
	Bolt, 5/8-11 x 2 1/2" Hex Head Grade 5	F05009-20	2	◆
	Washer, 5/8" Split Lock	F05011-27	2	
	Washer, 5/8" SAE Flat	F05011-5	2	
	Bracket, Safety Chain Bumper	S12289-N	2	◆
	Nut, 5/8-11 Free Hex	F05010-5	2	
	<b>DECAL, PINCH POINT DANGER</b>	P10287	1	
	<b>DECAL, BEFORE TOWING DANGER (HYDRAULIC MILLS ONLY)</b>	P11809	1	

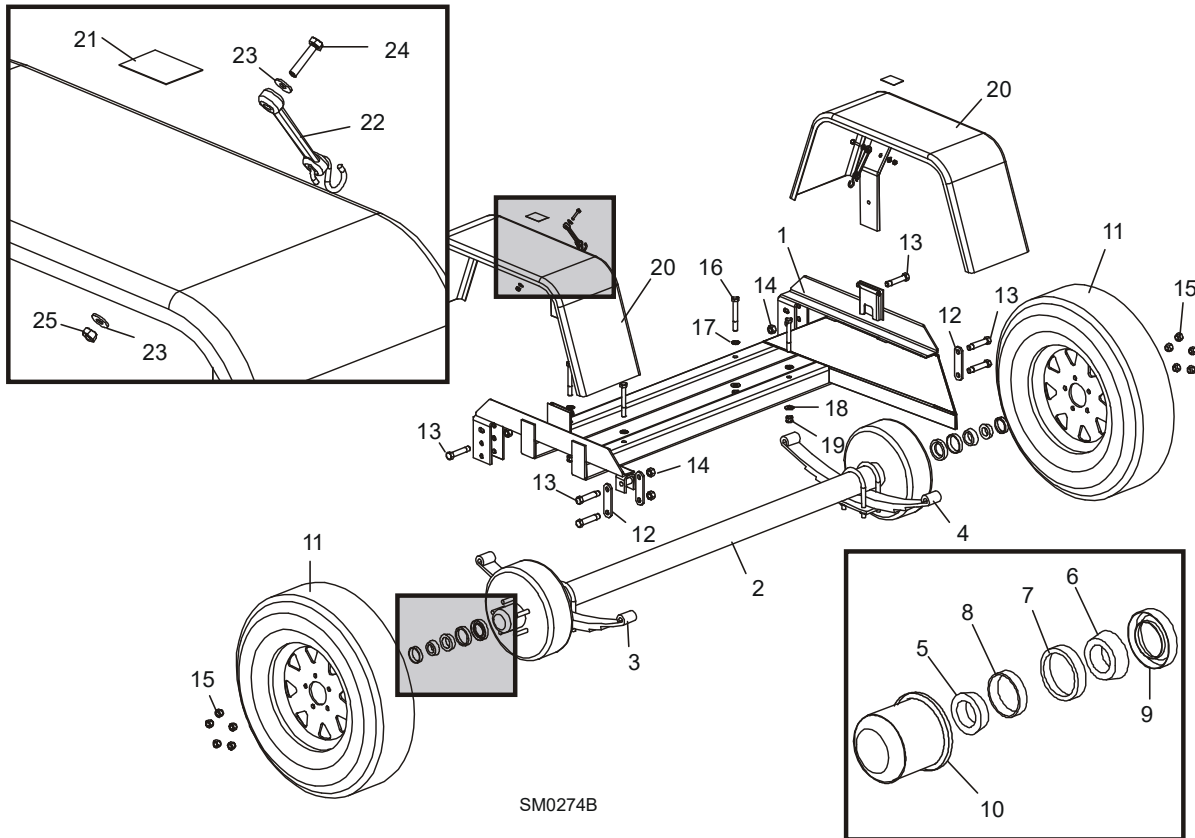
# 3

## Parts Lists

### Trailer Axle Assembly, Surge Brake

#### 4.2 Trailer Axle Assembly, Surge Brake

**LT30 Super**                      **Rev. H4.00+**  
**LT40 Super**                      **Rev. H5.00+**  
**LT30HD**                            **Rev. H8.00+**  
**LT40HD**                            **Rev. H8.00+**  
**LT30HD Super**                  **Rev. H8.00+**  
**LT40HD Super**                  **Rev. H8.00+**  
**LT50HD**                            **Rev. A1.00+**



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.	
	<b>PLUMBING KIT, LT30/60 LENGTH SURGE BRAKE</b>	K10048	1	
	<b>PLUMBING KIT, LT40/70 LENGTH SURGE BRAKE</b>	K10049	1	
	<b>AXLE ASSEMBLY, 3500 LB SURGE BRAKE</b>	014683	1	
1	Frame Weldment, Trailer Axle Painted	W09751	1	◆
	Mount Bracket, Trailer Fender (requires welding)	W09784	2	
2	Axle, 3500 Lb With Springs And Surge Brakes	P09801	1	
3	Spring, 2000 Lb. Dexter Leaf	P09612	1	
4	Spring, 2500 Lb. Dexter Leaf	014586	1	
	Bearing Kit, Sawmill Axle Spindle	K07549	1	
5	Bearing, Dexter #L68149	P22573-1	1	◆

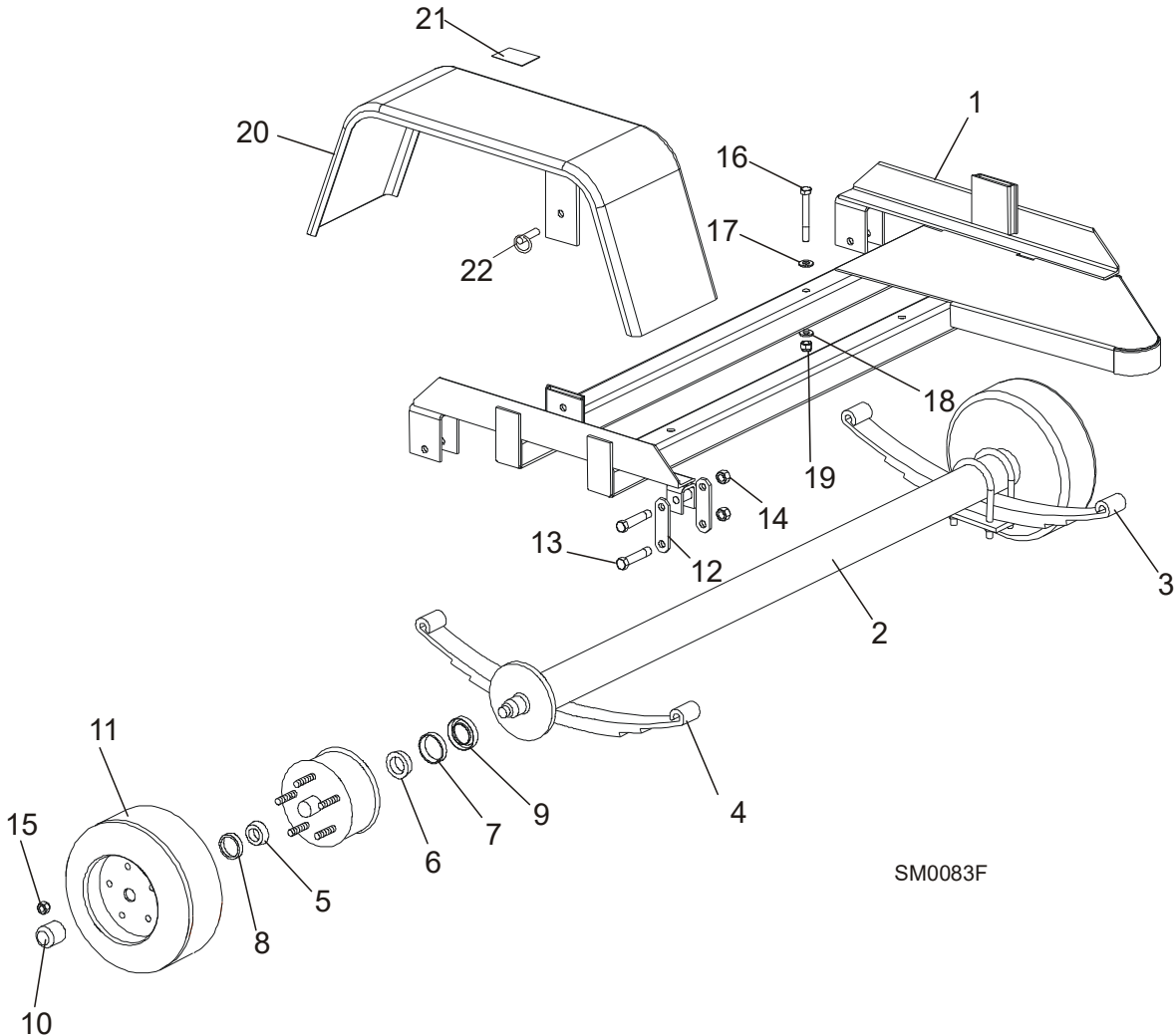
6	Bearing, Dexter #L44649	P22572-1	1	◆
7	Race, Inner Dexter #6811	P22572-2	1	◆
8	Race, Outer Dexter #L44610	P22573-2	1	
9	Seal, 13" Wheel Bearing Dust	P07554	1	
10	Cap, Wheel Bearing Dust	P04493	2	
	Shoe/Lining Kit, 10" x 2 1/4" Brake	010180	2	
11	Wheel Assembly, Goodyear ST215/75R14	015987	2	
12	Plate, Trailer Axle Shackle	M07528	4	
13	Bolt, 9/16-8 X 3" Shackle	P04644	6	
14	Nut, 9/16-8 Shackle	P04643	6	
15	Nut, 1/2-20 Wheel Lug	P04646	10	
16	<b>BOLT, 1/2-13 X 4" HEX HEAD</b>	F05008-26	4	
17	<b>WASHER, 1/2" EXTERIOR STAR</b>	F05011-39	4	
18	<b>WASHER, 1/2" SAE FLAT</b>	F05011-2	4	
19	<b>NUT, 1/2-13 HEX NYLON LOCK</b>	F05010-8	4	
20	<b>FENDER WELDMENT, TRAILER WHEEL</b>	W11452	2	
21	<b>DECAL, FENDER DAMAGE CAUTION</b>	S11761	2	
22	<b>STRAP, 6" RUBBER</b>	016542	4	
23	<b>WASHER, 1/4" SAE FLAT</b>	F05011-11	4	
24	<b>BOLT, 1/4-20 X 1 1/4" HEX HEAD FULL THREAD</b>	F05005-3	2	
25	<b>NUT, 1/4-20 LOCK</b>	F05010-21	2	
	<b>DECAL, PINCH POINT DANGER</b>	P10287	1	
	<b>DECAL, REMOVE FENDERS (CONTROL BOX)</b>	076607	1	

# 3 Parts Lists

## Trailer Axle Assembly, Surge Brake

### 4.3 Trailer Axle Assembly, Surge Brake

**LT30 Super**                      **Rev. F7.00 - H3.00**  
**LT40 Super**                      **Rev. F8.00 - H4.00**  
**LT30HD**                            **Rev. G1.00 - H7.00**  
**LT40HD**                            **Rev. G1.00 - H7.00**



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.	
	<b>PLUMBING KIT, LT30/60 LENGTH SURGE BRAKE</b>	K10048	1	
	<b>PLUMBING KIT, LT40/70 LENGTH SURGE BRAKE</b>	K10049	1	
	<b>AXLE ASSEMBLY, 3500 LB SURGE BRAKE</b>	014683	1	
<b>1</b>	Frame Weldment, Trailer Axle Painted	W09751	1	◆
	Mount Bracket, Trailer Fender (requires welding)	W09784	2	
<b>2</b>	Axle, 3500 Lb With Springs And Surge Brakes	P09801	1	
<b>3</b>	Spring, 2000 Lb. Dexter Leaf	P09612	1	

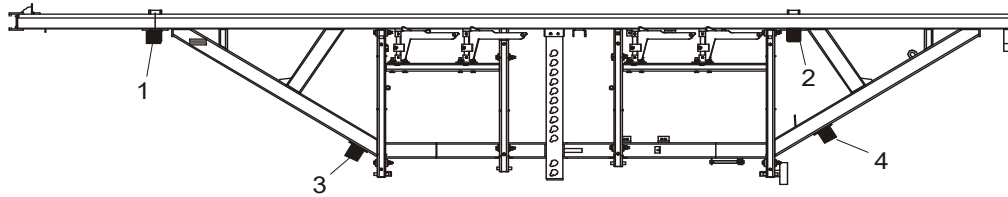
4	Spring, 2500 Lb. Dexter Leaf	014586	1	
	Bearing Kit, Sawmill Axle Spindle	K07549	1	
5	Bearing, Dexter #L68149	P22573-1	1	◆
6	Bearing, Dexter #L44649	P22572-1	1	◆
7	Race, Inner Dexter #6811	P22572-2	1	◆
8	Race, Outer Dexter #L44610	P22573-2	1	
9	Seal, 13" Wheel Bearing Dust	P07554	1	
10	Cap, Wheel Bearing Dust	P04493	2	
	Shoe/Lining Kit, 10" x 2 1/4" Brake	010180	2	
11	Wheel Assembly, Goodyear ST215/75R14	015987 <sup>1</sup>	2	
	Wheel Assembly, LT185R14 D	014677	2	
12	Plate, Trailer Axle Shackle	M07528	4	
13	Bolt, 9/16-8 X 3" Shackle	P04644	6	
14	Nut, 9/16-8 Shackle	P04643	6	
15	Nut, 1/2-20 Wheel Lug	P04646	10	
16	<b>BOLT, 1/2-13 X 4" HEX HEAD</b>	F05008-26	4	
	<b>WASHER, 1/2" EXTERIOR STAR</b>	F05011-39	4	
17	<b>WASHER, 1/2" SAE FLAT</b>	F05011-2	4	
18	<b>NUT, 1/2-13 HEX NYLON LOCK</b>	F05010-8	4	
19	<b>FENDER WELDMENT, TRAILER WHEEL</b>	W11452	2	
20	<b>DECAL, FENDER DAMAGE CAUTION</b>	S11761	2	
	<b>PIN, 5/16" X 1" DETAINING</b>	F05012-45	2	

<sup>1</sup> Use 015987 wheel for LT30 Super Rev. G3.00, LT40 Super Rev.G4.00, LT30HD/40HD Rev. G6.00 and later. Use 014677 for previous revisions or upgrade *both* wheel assemblies to 015987 to ensure proper mill tracking. (The wheel types have slightly different diameters.)

# 4 Parts List

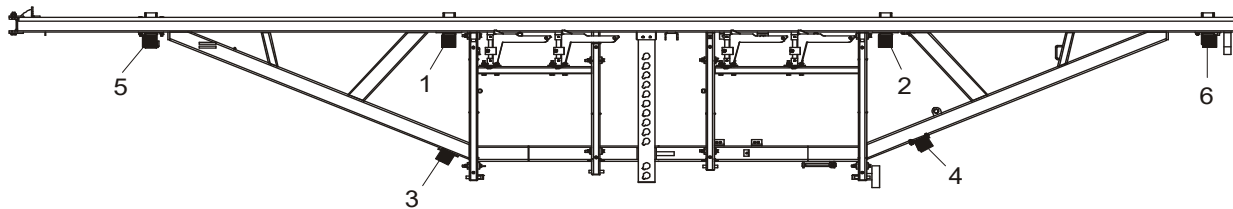
## Outriggers

### 4.4 Outriggers



LT25/LT30/LT30HD/LT60HD (16' Bed)

230026-1C



LT25L/LT27/LT40/LT40HD/LT70HD (24' Bed)

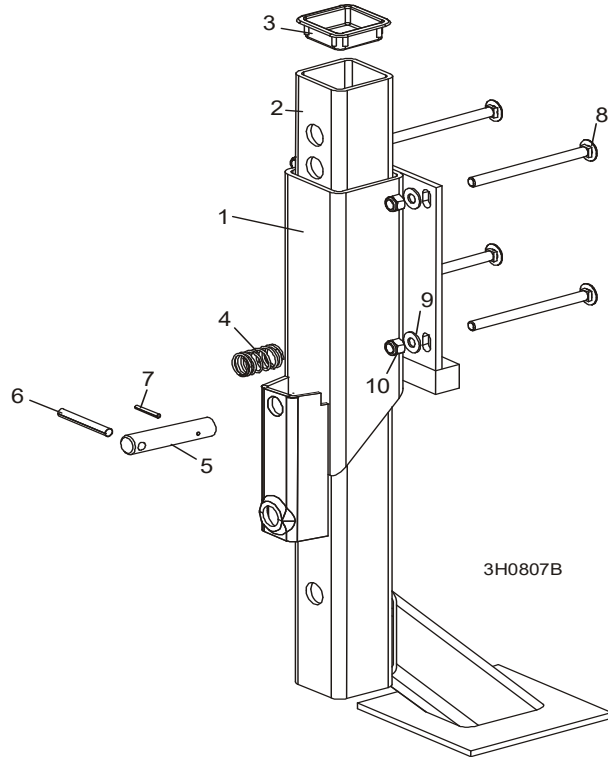
REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.
1	OUTRIGGER ASSEMBLY, LONG (See Section 4.5)	012997	1
	OUTRIGGER ASSEMBLY, LONG (SUPER LT30 ONLY) (See Section 4.10)	016414	1
2	OUTRIGGER ASSEMBLY, LONG (See Section 4.5)	012997	1
3	OUTRIGGER ASSEMBLY, SHORT (See Section 4.11)	A04278	1
4	OUTRIGGER ASSEMBLY, SHORT W/JACK HOLDER (See Section 4.15)	A09475	1
5	OUTRIGGER ASSEMBLY, LONG FRONT (See Section 4.8)	015143	1
6	OUTRIGGER ASSEMBLY, LONG REAR (See Section 4.13)	A12083	1



## 4.5 Outrigger Assembly, Long

*LT30 Super  
 LT40 Super  
 LT30HD  
 LT40HD*

*Rev. H2.00+  
 Rev. H3.00+  
 Rev. H6.00+  
 Rev. H6.00+*



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.	
	<b>OUTRIGGER ASSEMBLY, LONG</b>	012997 <sup>1</sup>	1/2	
1	Guide, Long Outrigger Guide	012996	1	
2	Leg, Outrigger	016401	1	
3	Cap, Outrigger Leg	P09926	1	
4	Spring, Outrigger Pin	016145	1	
	Pin Kit, 3/4" Outrigger Pull	016148	1	
5	Pin, 3/4" Outrigger Pull	016147	1	◆
6	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
7	Pin, 3/16" X 1 3/4" Roll	F05012-103 <sup>2</sup>	1	
	Pin, 1/8" x 1 1/4" Cotter	F05012-59 <sup>2</sup>	1	
8	<b>BOLT, 3/8-16 X 5" CARRIAGE HEAD</b>	F05007-113	4/8	
9	<b>WASHER, 3/8" SAE FLAT</b>	F05011-3	4/8	
10	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4/8	

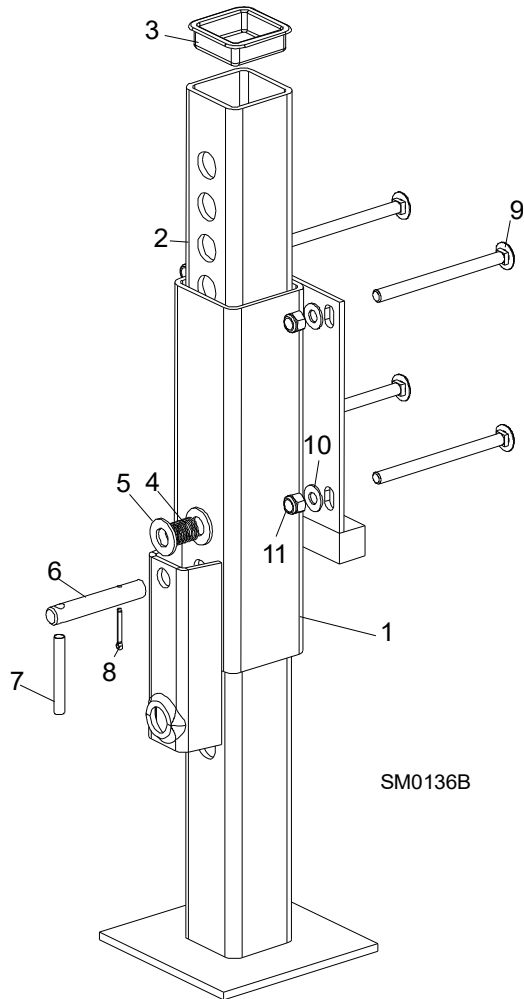
**3****Parts List***Outrigger Assembly, Long*

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- <sup>1</sup> Washers (2) removed from spring to improve outrigger locking pin operation (LT30 Super Rev. H2.01, LT40 Super Rev. H3.01, LT30HD/40HD Rev. H6.01). Washers may be removed on previous revisions with 3/4" diameter locking pins to improve operation.
- <sup>2</sup> Use F05012-103 3/16" X 1 3/4" Roll Pin for LT30 Super H2.02, LT40 Super H3.02, LT30HD/40HD H6.02 and later revision mills. Use F05012-59 1/8" x 1 1/4" Cotter Pin for all prior revision mills.

## 4.6 Outrigger Assembly, Long

<i>LT30 Super</i>	<i>Rev. G6.00 - H1.00</i>
<i>LT40 Super</i>	<i>Rev. G7.00 - H2.00</i>
<i>LT30HD</i>	<i>Rev. G9.00 - H5.00</i>
<i>LT40HD</i>	<i>Rev. G9.00 - H5.00</i>



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.
	<b>OUTRIGGER ASSEMBLY, LONG</b>	012997 <sup>1</sup>	1/2
1	Guide, Long Outrigger Guide	012996	1
2	Leg, Outrigger	W07537	1
3	Cap, Outrigger Leg	P09926	1
4	Spring, Outrigger Pin	016145	1
5	Washer, 3/4" SAE Flat	F05011-62 <sup>2</sup>	2
	Pin Kit, 3/4" Outrigger Pull	016148	1

# 3

## Parts List

### *Outrigger Assembly, Long*

6	Pin, 3/4" Outrigger Pull	016147	1	◆
7	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
8	Pin, 1/8" X 1 1/4" Cotter	F05012-59	1	
9	<b>BOLT, 3/8-16 X 5" CARRIAGE HEAD</b>	F05007-113	4/8	
10	<b>WASHER, 3/8" SAE FLAT</b>	F05011-3	4/8	
11	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4/8	

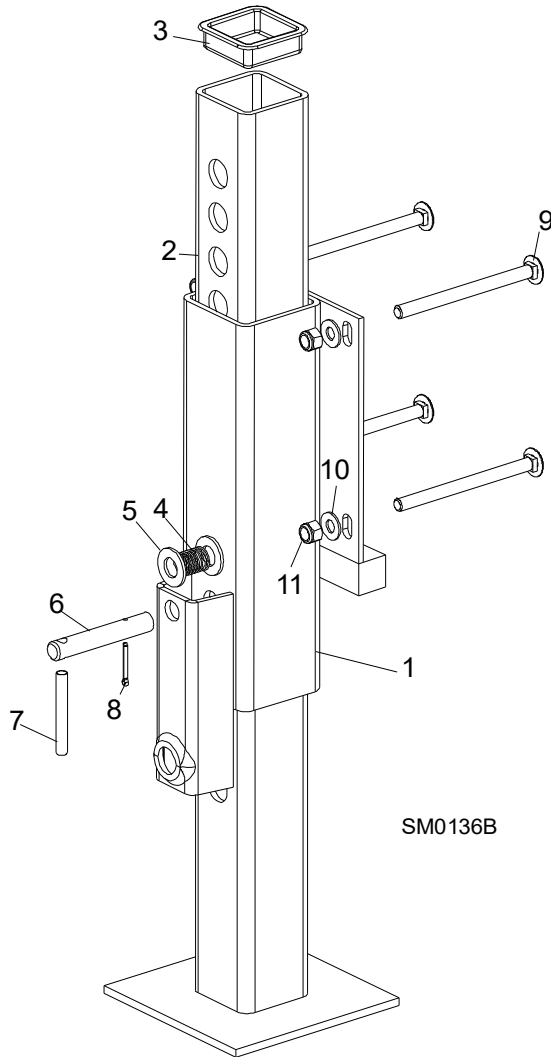
<sup>1</sup> Outrigger assembly now includes extended leg (11/99) to improve sawmill stability ([See Section 4.5](#)).

<sup>2</sup> Washers removed to improve outrigger locking pin operation (12/99). Washers may be removed on previous revisions with 3/4" diameter locking pins to improve operation.

## 4.7 Outrigger Assembly, Long

*LT30 Super*  
*LT40 Super*  
*LT30HD*  
*LT40HD*

*Rev. F7.00 - G5.00*  
*Rev. F8.00 - G6.00*  
*Rev. G1.00 - G8.00*  
*Rev. G1.00 - G8.00*



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.	
	<b>OUTRIGGER ASSEMBLY, LONG</b>	012997 <sup>1</sup>	1/2	
1	Guide, Long Outrigger Guide	012996	1	
2	Leg, Outrigger	W07537 <sup>2</sup>	1	
3	Cap, Outrigger Leg	P09926	1	

## 3

**Parts List***Outrigger Assembly, Long*

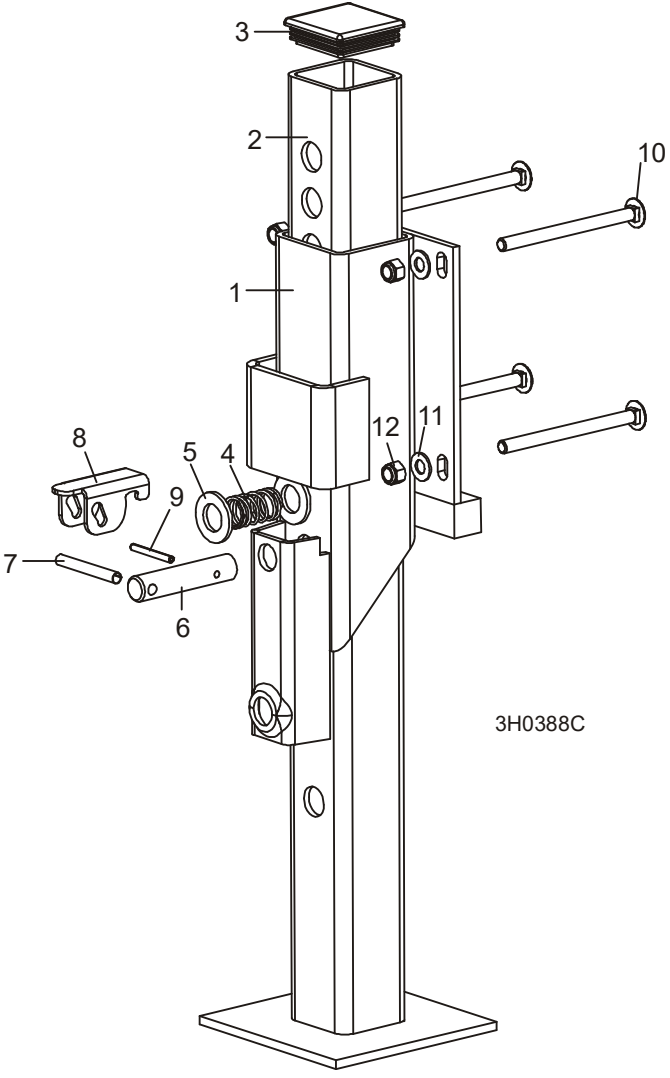
4	Spring, Outrigger Pin	P04282 <sup>1</sup>	1	
5	Washer, 9/16" SAE Flat	F05011-8 <sup>1</sup>	2	
	Pin Kit, Outrigger Pull	A12232 <sup>1</sup>	1	
6	Pin, Outrigger Pull	S12261	1	◆
7	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
8	Pin, 1/8" X 1" Cotter	F05012-1	1	
9	<b>BOLT, 3/8-16 X 5" CARRIAGE HEAD</b>	F05007-113	4/8	
10	<b>WASHER, 3/8" SAE FLAT</b>	F05011-3	4/8	
11	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4/8	

<sup>1</sup> Outrigger upgraded with 3/4" retaining pin hardware 9/98 ([See Section 4.6](#)).

<sup>2</sup> Outrigger upgraded with extended leg 11/99 ([See Section 4.5](#)).

### 4.8 Outrigger Assembly, Front

*LT40 Super                      Rev. G7.00+*  
*LT40HD                            Rev. G9.00+*



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.
	<b>OUTRIGGER ASSEMBLY, FRONT</b>	015143	1
1	Guide, Front Outrigger '97 Super	015144	1
2	Leg, Outrigger	W07537	1
3	Cap, Outrigger Leg	P09926	1
4	Spring, Outrigger Pin	016145	1
5	Washer, 3/4" SAE Flat	F05011-62 <sup>1</sup>	2



## 4

**Parts List***Outrigger Assembly, Front*

	Pin Assembly, Outrigger Pull w/Lock	007736 <sup>2</sup>	1	
6	Pin, 3/4" Outrigger Pull	016147	1	◆
7	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
8	Plate, Outrigger Pin Lock	064001	1	
9	Pin, 3/16" X 1 1/2" Roll	F05012-17 <sup>3</sup>	1	
	Pin, 1/8" x 1 1/4" Cotter	F05012-59 <sup>3</sup>	1	
10	<b>BOLT, 3/8-16 X 5" CARRIAGE HEAD</b>	F05007-113	4/8	
11	<b>WASHER, 3/8" SAE FLAT</b>	F05011-3	4/8	
12	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4/8	

<sup>1</sup> Washers removed to improve outrigger locking pin operation (LT30 Super Rev. H2.01, LT40 Super Rev. H3.01, LT30HD/40HD Rev. H6.01). Washers may be removed on previous revisions with 3/4" diameter locking pins to improve operation.

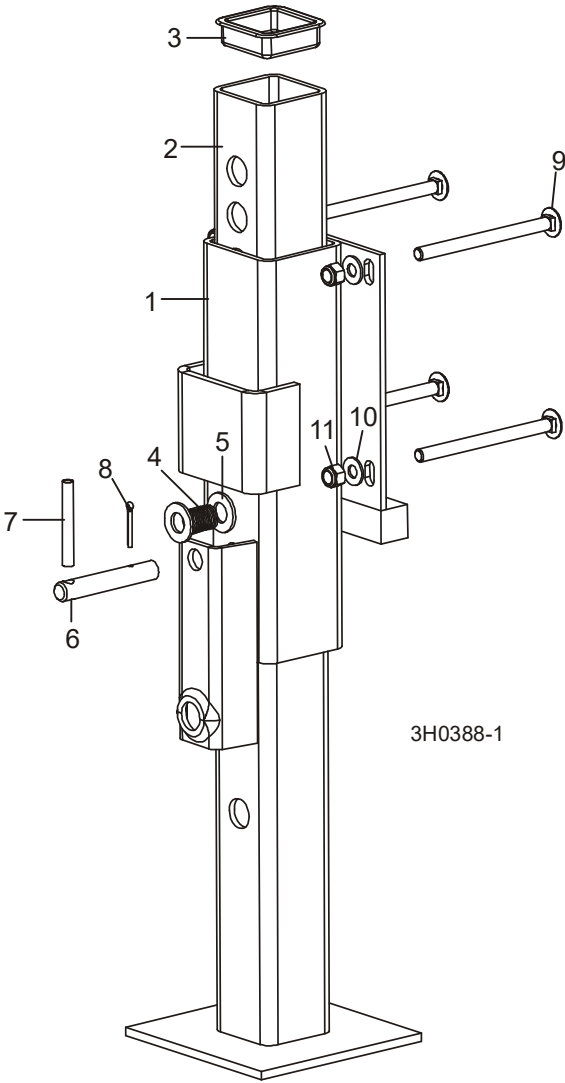
<sup>2</sup> Pin Assembly 007736 with Lock Plate 064001 replaces Pin Kit 016148 on Front and Rear outrigger assemblies to prevent pin from vibrating loose (12/09).

<sup>3</sup> Replaced F05012-103 3/16" X 1 3/4" Roll Pin (1/12). Use 05012-17 3/16" X 1 1/2" Roll Pin for LT30 Super H2.02, LT40 Super H3.02, LT30HD/40HD H6.02 and later revision mills. Use F05012-59 1/8" x 1 1/4" Cotter Pin for all prior revision mills.

### 4.9 Outrigger Assembly, Front

*LT40 Super  
 LT40HD*

*Rev. F8.00 - G6.00  
 Rev. G1.00 - G8.00*



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.
	<b>OUTRIGGER ASSEMBLY, FRONT</b>	015143 <sup>1</sup>	1/2
<b>1</b>	Guide, Front Outrigger '97 Super	015144	1
<b>2</b>	Leg, Outrigger	W07537	1
<b>3</b>	Cap, Outrigger Leg	P09926	1
<b>4</b>	Spring, Outrigger Pin	P04282	1
<b>5</b>	Washer, 9/16" SAE Flat	F05011-8	2

## 4

**Parts List***Outrigger Assembly, Front*

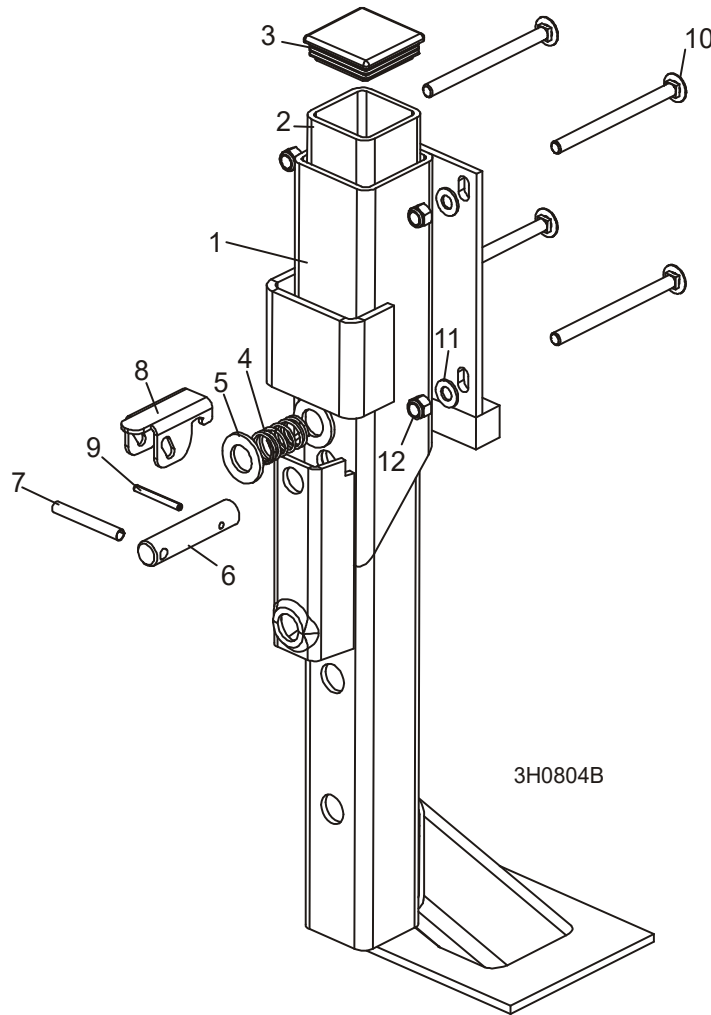
	Pin Kit, Outrigger Pull	A12232	1	
<b>6</b>	Pin, Outrigger Pull	S12261	1	◆
<b>7</b>	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
<b>8</b>	Pin, 1/8" X 1" Cotter	F05012-1	1	
<b>9</b>	<b>BOLT, 3/8-16 X 5" CARRIAGE HEAD</b>	F05007-113	4/8	
<b>10</b>	<b>WASHER, 3/8" SAE FLAT</b>	F05011-3	4/8	
<b>11</b>	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4/8	

<sup>1</sup> Outrigger upgraded with 3/4" retaining pin hardware 9/98 ([See Section 4.8](#)).

### 4.10 Outrigger Assembly, Long (LT30 Super)

LT30  
LT30 Super

Rev. J9.00+  
Rev. H2.00+



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.	
	<b>OUTRIGGER ASSEMBLY, LONG</b>	016414	1	
1	Guide, Long Outrigger Guide	015144	1	
2	Leg, Outrigger	016401	1	
3	Cap, Outrigger Leg	P09926	1	
4	Spring, Outrigger Pin	016145	1	
5	Washer, 3/4" SAE Flat	F05011-62 <sup>1</sup>	2	
	Pin Assembly, Outrigger Pull w/Lock	007736 <sup>2</sup>	1	
6	Pin, 3/4" Outrigger Pull	016147	1	◆

# 3

## Parts List

### *Outrigger Assembly, Long (LT30 Super)*

7	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
8	Plate, Outrigger Pin Lock	064001	1	
9	Pin, 3/16" X 1 1/2" Roll	F05012-17 <sup>3</sup>	1	
	Pin, 1/8" x 1 1/4" Cotter	F05012-59 <sup>3</sup>	1	
10	<b>BOLT, 3/8-16 X 5" CARRIAGE HEAD</b>	F05007-113	4/8	
11	<b>WASHER, 3/8" SAE FLAT</b>	F05011-3	4/8	
12	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4/8	

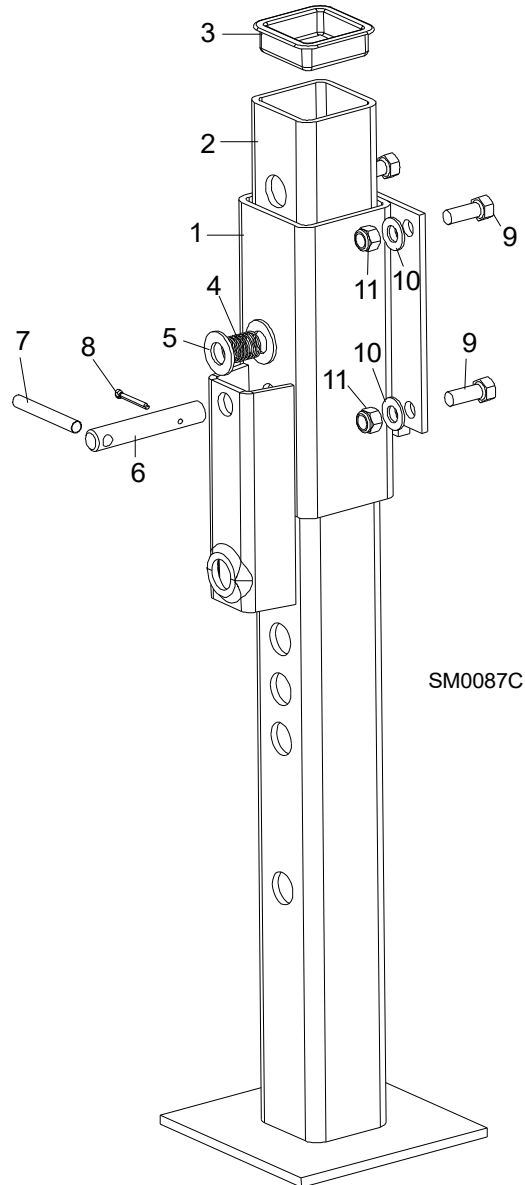
<sup>1</sup> Washers removed to improve outrigger locking pin operation (LT30 Super Rev. H2.01). Washers may be removed on previous revisions with 3/4" diameter locking pins to improve operation.

<sup>2</sup> Pin Assembly 007736 with Lock Plate 064001 replaces Pin Kit 016148 on Front and Rear outrigger assemblies to prevent pin from vibrating loose (12/09).

<sup>3</sup> Replaced F05012-103 3/16" X 1 3/4" Roll Pin (1/12). Use 05012-17 3/16" X 1 1/2" Roll Pin for LT30 Super H2.02, LT40 Super H3.02, LT30HD/40HD H6.02 and later revision mills. Use F05012-59 1/8" x 1 1/4" Cotter Pin for all prior revision mills.

### 4.11 Outrigger Assembly, Short Front

<i>LT30 Super</i>	<i>Rev. G6.00+</i>
<i>LT40 Super</i>	<i>Rev. G7.00+</i>
<i>LT30HD</i>	<i>Rev. G9.00+</i>
<i>LT40HD</i>	<i>Rev. G9.00+</i>



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.
	<b>OUTRIGGER ASSEMBLY, SHORT FRONT</b>	A04278	1
1	Guide, Short Front Outrigger Guide	W09012	1
2	Leg, Outrigger	W07537	1

# 3

## Parts List

### Outrigger Assembly, Short Front

3	Cap, Outrigger Leg	P09926	1	
4	Spring, Outrigger Pin	016145	1	
5	Washer, 3/4" SAE Flat	F05011-62 <sup>1</sup>	2	
	Pin Kit, 3/4" Outrigger Pull	016148	1	
6	Pin, 3/4" Outrigger Pull	016147	1	◆
7	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
8	Pin, 3/16" X 1 3/4" Roll	F05012-103 <sup>2</sup>	1	
	Pin, 1/8" x 1 1/4" Cotter	F05012-59 <sup>2</sup>	1	
9	<b>BOLT, 3/8-16 X 1 1/4" HEX HEAD</b>	F05007-2 <sup>3</sup>	4	
10	<b>WASHER, 3/8" FLAT</b>	F05011-3	4	
11	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4	

<sup>1</sup> Washers removed to improve outrigger locking pin operation (LT30 Super Rev. H2.01, LT40 Super Rev. H3.01, LT30HD/40HD Rev. H6.01). Washers may be removed on previous revisions with 3/4" diameter locking pins to improve operation.

<sup>2</sup> Use F05012-103 3/16" X 1 3/4" Roll Pin for LT30 Super H2.02, LT40 Super H3.02, LT30HD/40HD H6.02 and later revision mills. Use F05012-59 1/8" x 1 1/4" Cotter Pin for all prior revision mills.

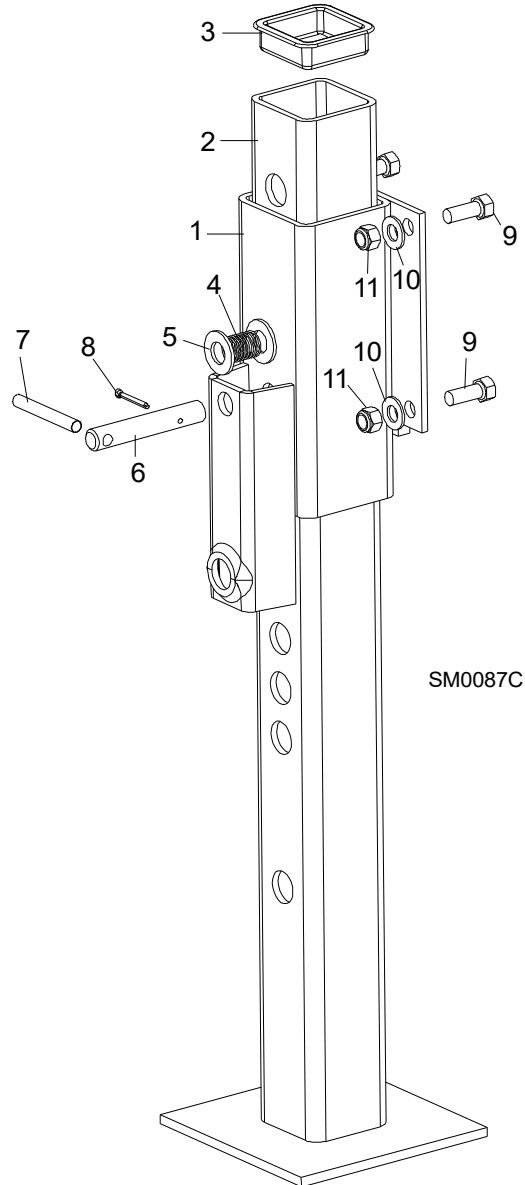
<sup>3</sup> Replaces 3/8-16 x 1" Hex Head Grade 2 Bolt (F05007-7) to secure outrigger with thicker 1/4" mounting plate provided after 11/99.



## 4.12 Outrigger Assembly, Short Front

*LT30 Super*  
*LT40 Super*  
*LT30HD*  
*LT40HD*

*Rev. F7.00 - G5.00*  
*Rev. F8.00 - G6.00*  
*Rev. G1.00 - G8.00*  
*Rev. G1.00 - G8.00*



REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	<b>OUTRIGGER ASSEMBLY, SHORT FRONT</b>	A04278 <sup>1</sup>	1	
1	Guide, Short Front Outrigger Guide	W09012	1	

# 3

## Parts List

### Outrigger Assembly, Short Front

2	Leg, Outrigger	W07537	1	
3	Cap, Outrigger Leg	P09926	1	
4	Spring, Outrigger Pin	P04282	1	
5	Washer, 9/16" SAE Flat	F05011-8	2	
	Pin Kit, Outrigger Pull	A12232	1	
6	Pin, Outrigger Pull	S12261	1	◆
7	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
8	Pin, 1/8" X 1" Cotter	F05012-1	1	
9	<b>BOLT, 3/8-16 X 1 1/4" HEX HEAD</b>	F05007-2 <sup>2</sup>	4	
10	<b>WASHER, 3/8" FLAT</b>	F05011-3	4	
11	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4	

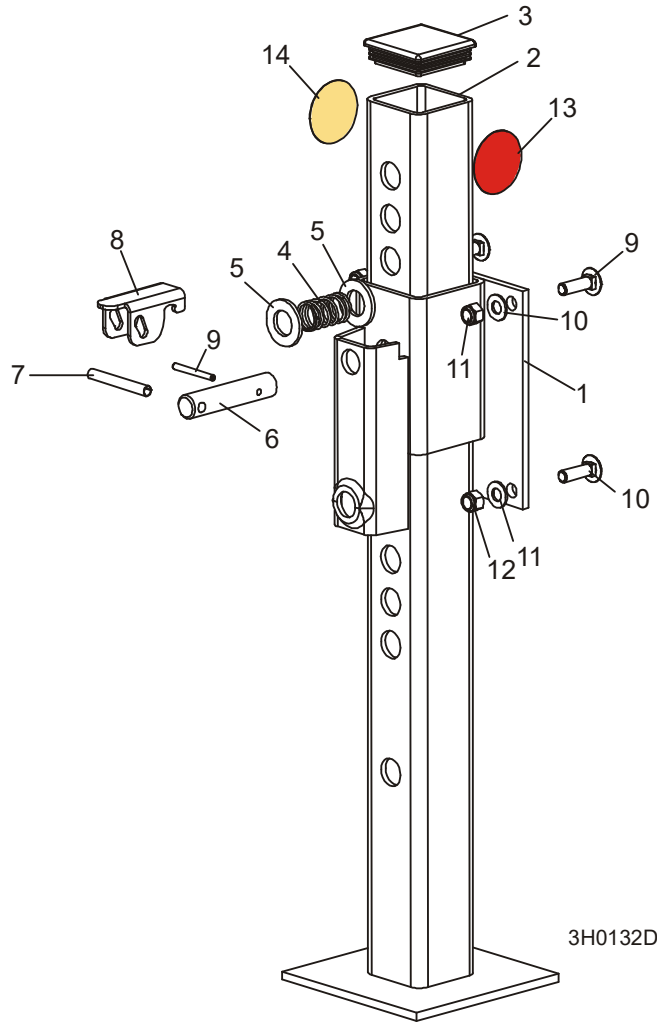
<sup>1</sup> Outrigger upgraded with 3/4" retaining pin hardware 9/98 ([See Section 4.11](#)).

<sup>2</sup> Replaces 3/8-16 x 1" Hex Head Grade 2 Bolt (F05007-7) to secure outrigger with thicker 1/4" mounting plate provided after 11/99.

### 4.13 Outrigger Assembly, Rear

*LT40 Super  
 LT40HD*

*Rev. G7.00+  
 Rev. G9.00+*



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.	
	<b>OUTRIGGER ASSEMBLY, LT40 REAR</b>	A12083	1	
<b>1</b>	Guide, Short Rear Outrigger Guide	W12082	1	
<b>2</b>	Leg, Outrigger	W07537	1	
<b>3</b>	Cap, Outrigger Leg	P09926	1	
<b>4</b>	Spring, Outrigger Pin	016145	1	
<b>5</b>	Washer, 3/4" SAE Flat	F05011-62 <sup>1</sup>	2	
	Pin Assembly, Outrigger Pull w/Lock	007736 <sup>2</sup>	1	
<b>6</b>	Pin, 3/4" Outrigger Pull	016147	1	◆

# 3

## Parts List

### Outrigger Assembly, Rear

7	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
8	Plate, Outrigger Pin Lock	064001	1	
9	Pin, 3/16" X 1 1/2" Roll	F05012-17 <sup>3</sup>	1	
	Pin, 1/8" x 1 1/4" Cotter	F05012-59 <sup>3</sup>	1	
10	<b>BOLT, 3/8-16 X 1 1/4" CARRIAGE HEAD</b>	F05007-11 <sup>4</sup>	4	
11	<b>WASHER, 3/8" FLAT</b>	F05011-3	4	
12	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4	
13	<b>REFLECTOR, 2" DIAMETER RED</b>	P07452	1	
14	<b>REFLECTOR, 2" DIAMETER AMBER</b>	P07453	1	

<sup>1</sup> Washers removed to improve outrigger locking pin operation (LT40 Super Rev. H3.01 and LT40HD Rev. H6.01). Washers may be removed on previous revisions with 3/4" diameter locking pins to improve operation.

<sup>2</sup> Pin Assembly 007736 with Lock Plate 064001 replaces Pin Kit 016148 on Front and Rear outrigger assemblies to prevent pin from vibrating loose (12/09) .

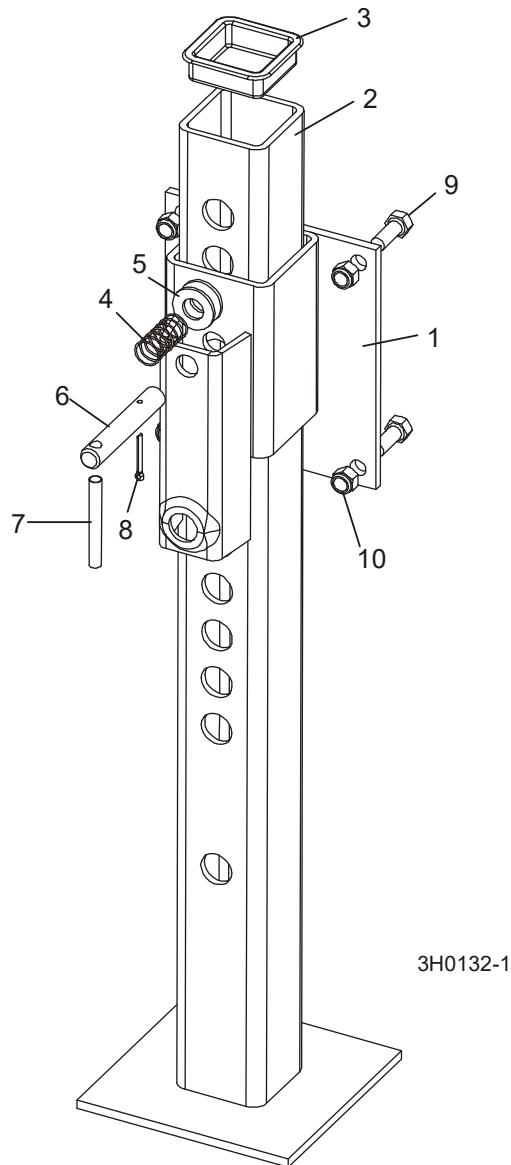
<sup>3</sup> Replaced F05012-103 3/16" X 1 3/4" Roll Pin (1/12). Use 05012-17 3/16" X 1 1/2" Roll Pin for LT30 Super H2.02, LT40 Super H3.02, LT30HD/40HD H6.02 and later revision mills. Use F05012-59 1/8" x 1 1/4" Cotter Pin for all prior revision mills.

<sup>4</sup> Replaces hex head bolts F05007-2 and F05007-7 supplied before 5/03.

## 4.14 Outrigger Assembly, Rear

*LT40 Super  
 LT40HD*

*Rev. F8.00 - G6.00  
 Rev. G1.00 - G8.00*



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.	
	<b>OUTRIGGER ASSEMBLY, LT40 REAR</b>	A12083 <sup>1</sup>	1	
<b>1</b>	Guide, Short Rear Outrigger Guide	W12082	1	
<b>2</b>	Leg, Outrigger	W07537	1	
<b>3</b>	Cap, Outrigger Leg	P09926	1	
<b>4</b>	Spring, Outrigger Pin	P04282	1	

# 3

## Parts List

### Outrigger Assembly, Rear

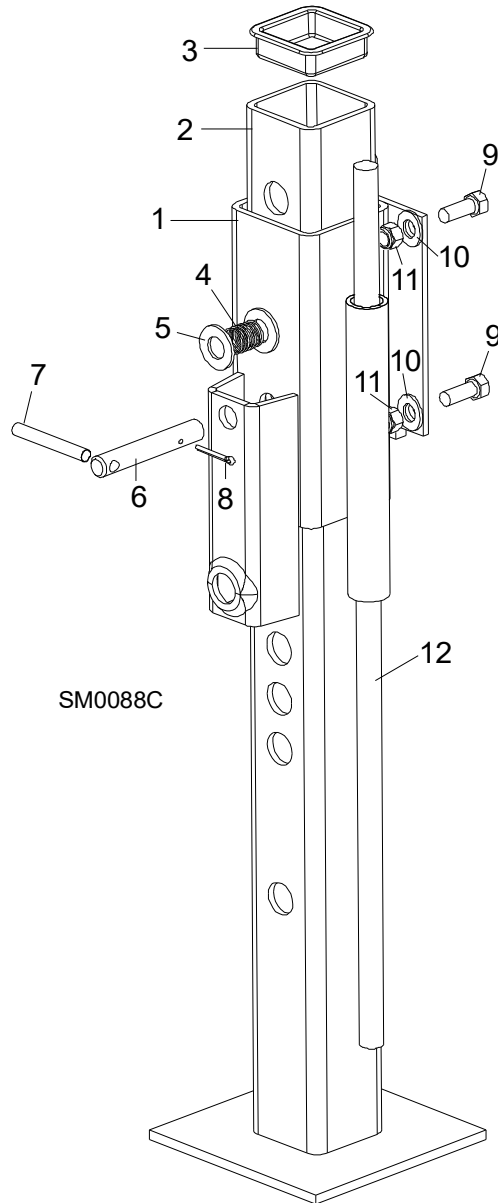
5	Washer, 9/16" SAE Flat	F05011-8	2	
	Pin Kit, Outrigger Pull	A12232	1	
6	Pin, Outrigger Pull	S12261	1	◆
7	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
8	Pin, 1/8" X 1" Cotter	F05012-1	1	
9	<b>SCREW, 3/8-16 X 1 1/4" HEX HEX CAP</b>	F05007-2 <sup>2</sup>	4	
10	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4	

<sup>1</sup> Outrigger upgraded with 3/4" retaining pin hardware 9/98 ([See Section 4.13](#)).

<sup>2</sup> Replaces 3/8-16 x 1" Hex Head Grade 2 Bolt (F05007-7) in order to secure outrigger with thicker 1/4" mounting plate provided after 11/99.

### 4.15 Outrigger Assembly, Short Rear

<i>LT30 Super</i>	<i>Rev. G6.00+</i>
<i>LT40 Super</i>	<i>Rev. G7.00+</i>
<i>LT30HD</i>	<i>Rev. G9.00+</i>
<i>LT40HD</i>	<i>Rev. G9.00+</i>



REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.
<b>OUTRIGGER ASSEMBLY, SHORT REAR</b>		A09475	1
1	Guide, Short Rear Outrigger Guide	W09474	1
2	Leg, Outrigger	W07537	1

# 3

## Parts List

### Outrigger Assembly, Short Rear

3	Cap, Outrigger Leg	P09926	1	
4	Spring, Outrigger Pin	016145	1	
5	Washer, 3/4" SAE Flat	F05011-62 <sup>1</sup>	2	
	Pin Kit, 3/4" Outrigger Pull	016148	1	
6	Pin, 3/4" Outrigger Pull	016147	1	◆
7	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
8	Pin, 3/16" X 1 3/4" Roll	F05012-103 <sup>2</sup>	1	
	Pin, 1/8" x 1 1/4" Cotter	F05012-59 <sup>2</sup>	1	
9	<b>SCREW, 3/8-16 X 1 1/4" HEX HEX CAP</b>	F05007-2 <sup>3</sup>	4	
10	<b>WASHER, 3/8" FLAT</b>	F05011-3	4	
11	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4	
12	<b>HANDLE, OUTRIGGER LIFT</b>	S04827	1	

<sup>1</sup> Washers removed to improve outrigger locking pin operation (LT30 Super Rev. H2.01, LT40 Super Rev. H3.01, LT30HD/40HD Rev. H6.01). Washers may be removed on previous revisions with 3/4" diameter locking pins to improve operation.

<sup>2</sup> Use F05012-103 3/16" X 1 3/4" Roll Pin for LT30 Super H2.02, LT40 Super H3.02, LT30HD/40HD H6.02 and later revision mills. Use F05012-59 1/8" x 1 1/4" Cotter Pin for all prior revision mills.

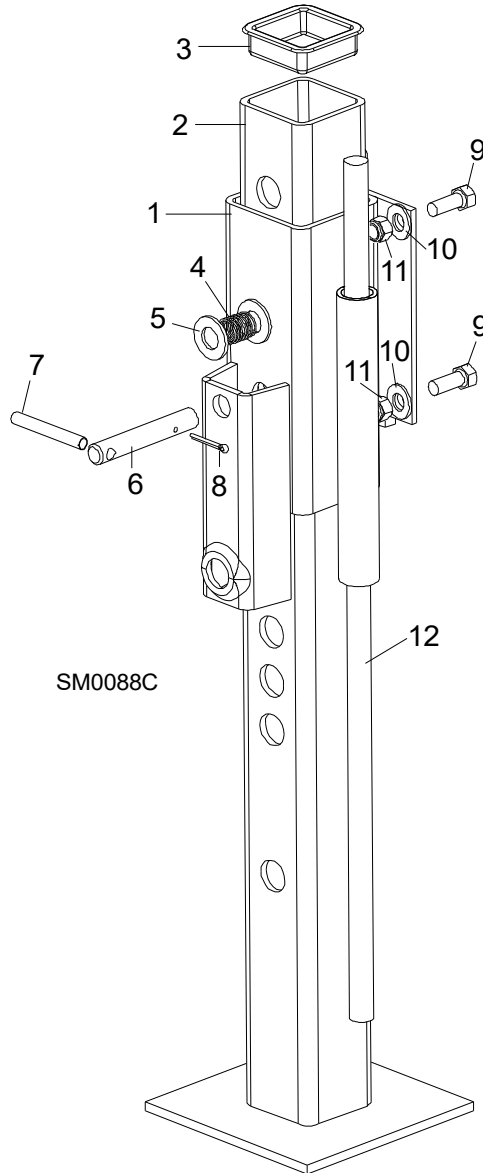
<sup>3</sup> Replaces 3/8-16 x 1" Hex Head Grade 2 Bolt (F05007-7) in order to secure outrigger with thicker 1/4" mounting plate provided after 11/99.



### 4.16 Outrigger Assembly, Short Rear

*LT30 Super*  
*LT40 Super*  
*LT30HD*  
*LT40HD*

*Rev. F7.00 - G5.00*  
*Rev. F8.00 - G6.00*  
*Rev. G1.00 - G8.00*  
*Rev. G1.00 - G8.00*



REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.	
	<b>OUTRIGGER ASSEMBLY, SHORT REAR</b>	A09475 <sup>1</sup>	1	
<b>1</b>	Guide, Short Rear Outrigger Guide	W09474	1	

# 3

## Parts List

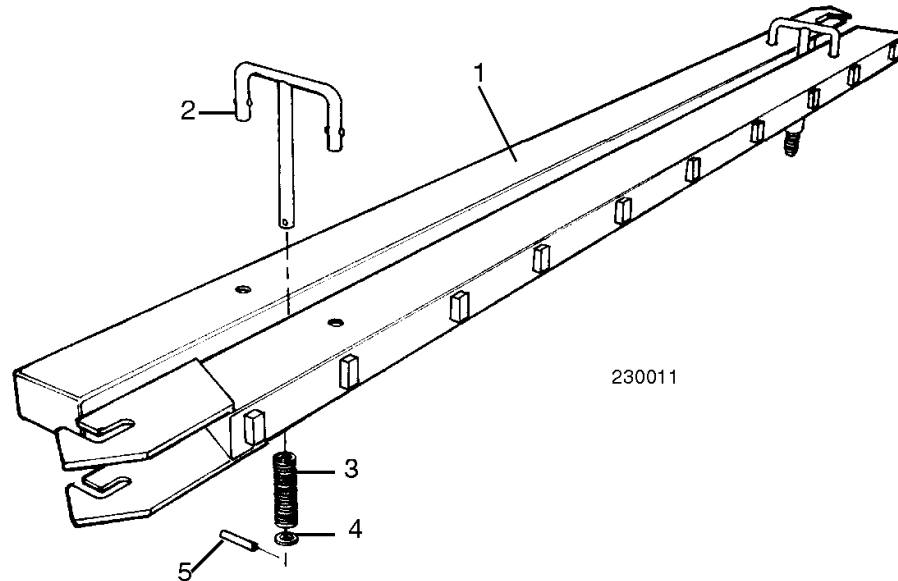
### Outrigger Assembly, Short Rear

2	Leg, Outrigger	W07537	1	
3	Cap, Outrigger Leg	P09926	1	
4	Spring, Outrigger Pin	P04282	1	
5	Washer, 9/16" SAE Flat	F05011-8	2	
	Pin Kit, Outrigger Pull	A12232	1	
6	Pin, Outrigger Pull	S12261	1	◆
7	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
8	Pin, 1/8" X 1" Cotter	F05012-1	1	
9	<b>SCREW, 3/8-16 X 1 1/4" HEX HEX CAP</b>	F05007-2 <sup>2</sup>	4	
10	<b>WASHER, 3/8" FLAT</b>	F05011-3	4	
11	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4	
12	<b>HANDLE, OUTRIGGER LIFT</b>	S04827	1	

<sup>1</sup> Outrigger upgraded with 3/4" retaining pin hardware 9/98 ([See Section 4.15](#)).

<sup>2</sup> Replaces 3/8-16 x 1" Hex Head Grade 2 Bolt (F05007-7) in order to secure outrigger with thicker 1/4" mounting plate provided after 11/99.

### 4.17 Log Loading Ramps (LT30/LT40)



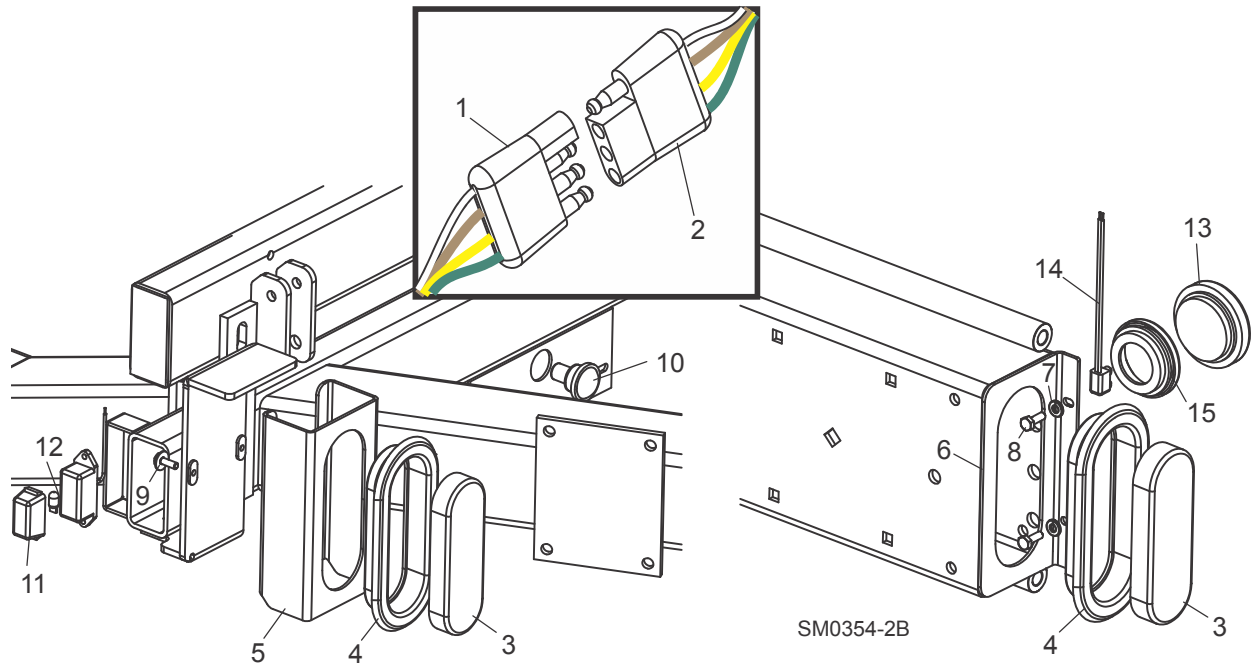
REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.	
	<b>RAMP KIT, LOG LOADING WITH RETAINERS</b>	K09466	1	
1	Ramp, Log Loading	W09014	2	
	Retainer Kit, Log Ramp	K09810	2	
2	Retainer, Log Ramp	W09413	1	◆
3	Spring, Log Ram Retainer	P09335	1	
4	Washer, 5/8" I.D. x .100" Thick Nylon	F05011-19	1	
5	Pin, 3/16" x 1" Roll	F05012-11	1	

# 4 Parts List Trailer Lights

## 4.18 Trailer Lights

LT40 Super  
LT30HD  
LT40HD

Rev. J6.00+  
Rev. K2.00+  
Rev. K4.00+



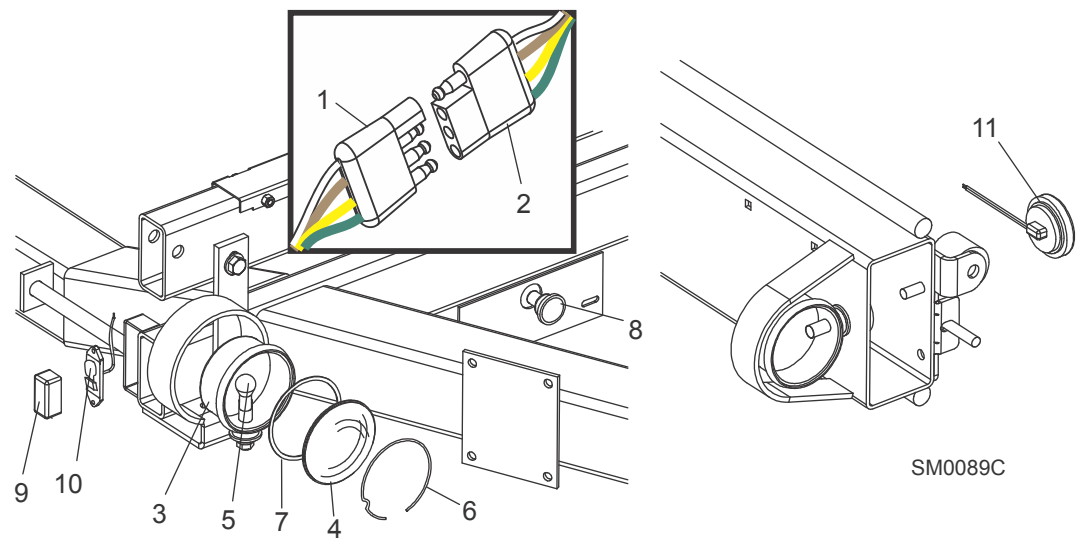
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
1	PLUG, TRAILER LIGHT MALE	P04159	1	
2	PLUG, TRAILER LIGHT FEMALE	P04983	1	
3	LIGHT ASSEMBLY, TRAILER TAIL LED	006391	2	
4	GROMMET, 6 1/2" LIGHT MOUNTING	006688	2	
5	GUARD, IDLE-SIDE TAIL LIGHT	006600	1	
6	PLATE, BED TUBE END W/LIGHT MOUNT	057822	1	
7	WASHER, 1/4" SPLIT LOCK	F05011-14	2	
8	BOLT, 1/4-20 X 3/4" HEX HEAD FULL THREAD	F05005-1	2	
9	BOLT, 1/4-20 X 3/4" HEX W/CONICAL WASHER HEAD	F05005-134	2	
10	LIGHT, LICENSE PLATE	P09928	1	
	LIGHT, RECTANGLE RED RUNNING	P12905	1	
	LIGHT, RECTANGLE AMBER RUNNING (NOT SHOWN)	P12906	1	
11	Lens, Rectangle Red Running Light	P12921	1	
	Lens, Rectangle Amber Running Light	P12922	1	
12	Bulb, Rectangle Running Light Replacement	P12923	1	◆

	<b>LIGHT, ROUND RED RUNNING</b>	P12913	1	
	<b>LIGHT, ROUND AMBER RUNNING (NOT SHOWN)</b>	P12914	1	
<b>13</b>	Light, Round Red Running Replacement	P12917	1	
	Light, Round Amber Running Replacement	P12918	1	
<b>14</b>	Pigtail, Round Running Light Replacement	P12920	1	
<b>15</b>	Grommet, Round Running Light Replacement	P12919	1	

# 3 Parts List Trailer Lights

## 3.19 Trailer Lights

**LT30 Super**                      **Rev. F7.00+**  
**LT40 Super**                      **Rev. F8.00 - J5.03**  
**LT30HD**                            **Rev. G1.00 - K1.03**  
**LT40HD**                            **Rev. G1.00 - K3.01**



SM0089C

REF	DESCRIPTION (◆ INDICATES PARTS AVAILABLE IN ASSEMBLIES ONLY)	PART #	QTY.	
1	PLUG, TRAILER LIGHT MALE	P04159	1	
2	PLUG, TRAILER LIGHT FEMALE	P04983	1	
3	LIGHT ASSEMBLY, TRAILER TAIL	P04294	2	
4	Lens, Grote Tail Light #90012	P12509	1	
5	Bulb, #1157 Trailer Light	P04481	1	
6	Clip, Grote Tail Light Retainer	P12510	1	
7	Gasket, Grote Tail Light Lens	P12511	1	
8	LIGHT, LICENSE PLATE	P09928	1	
	LIGHT, RECTANGLE RED RUNNING	P12905	1	
	LIGHT, RECTANGLE AMBER RUNNING (NOT SHOWN)	P12906	1	
9	Lens, Rectangle Red Running Light	P12921	1	
	Lens, Rectangle Amber Running Light	P12922	1	
10	Bulb, Rectangle Running Light Replacement	P12923 <sup>1</sup>	1	◆
11	LIGHT, ROUND RED RUNNING	P12913	1	
	LIGHT, ROUND AMBER RUNNING (NOT SHOWN)	P12914	1	
	Light, Round Red Running Replacement	P12917	1	
	Light, Round Amber Running Replacement	P12918	1	
	Pigtail, Round Running Light Replacement	P12920	1	
	Grommet, Round Running Light Replacement	P12919	1	

<sup>1</sup> Running light bulb P12923 no longer offered. Bulb is readily available at most local auto parts stores.

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