

Surge Brake Trailer

Safety, Operation, Maintenance & Parts Manual

TRB-S

1992 Model Sawmills



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

February 1999

Form #710

Table of Contents

Section-Page

SECTION 1	SAFETY & GENERAL INFORMATION	1-1
SECTION 2	SURGE BRAKE HITCH OPERATION	2-1
SECTION 3	SURGE BRAKE HITCH MAINTENANCE	3-1
SECTION 4	PARTS LISTS	4-1
4.1	Trailer Hitch Assembly (LT25/LT30 Surge Brake).....	4-1
4.2	Trailer Hitch Assembly (LT40/30HD/40HD Surge Brake).....	4-3
4.3	Trailer Axle Assembly (Surge Brake).....	4-5
4.4	Outrigger Assembly (Long).....	4-7
4.5	Outrigger Assembly (Short Front).....	4-9
4.6	Outrigger Assembly (LT25/LT30/LT40 Short Rear).....	4-11
4.7	Outrigger Assembly (LT30HD/LT40HD Short Rear).....	4-13
4.8	Outrigger Assembly (LT25L/LT40 /LT40HD Rear).....	4-15
4.9	Trailer Lights (Clip-on Tail Light Lens).....	4-17
4.10	Log Loading Ramps (LT25/LT30/LT40).....	4-19
4.11	Outrigger Pin Hardware (3/4" Dia.).....	4-20

SECTION 1 SAFETY & GENERAL INFORMATION



This symbol calls your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions. This symbol accompanies a signal word. The word **DANGER** refers to hazards that can cause death or serious, irreversible personal injury. The word **WARNING** suggests a safety hazard that can cause personal injury. **CAUTION** refers to hazards that can cause damage to the equipment or property only.

Read all safety instructions before operating this equipment and observe all safety warnings!



DANGER! Make sure hitch bracket is securely fastened around ball before towing the sawmill. Ball should be completely engaged by the hitch bracket and securely locked in place.

DANGER! 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.

DANGER! Be sure that the hitch and safety chains are secure before towing the sawmill. Check all lights and signals for correct operation. Check to see tires are properly inflated and surge brakes are working before towing the sawmill.



WARNING! Always check trailer tires for proper inflation before towing sawmill.



CAUTION! Always keep away from trailer axle to avoid being caught between the axle and moving saw carriage.

IMPORTANT! It is always the owner's responsibility to comply with all applicable federal, state and local laws, rules and regulations regarding the ownership, operation and towing of your Wood-Mizer sawmill. All Wood-Mizer mill owners are encouraged to become thoroughly familiar with these applicable laws and comply with them fully while using or towing the mill.

SECTION 2 SURGE BRAKE HITCH OPERATION

1. Pull the mill behind the towing vehicle and place the hitch over a 2" ball on your vehicle. The hitch ball should be solid (not two-piece) with a rating of at least 3500 pounds (1588 kg). The hitch should be correctly mounted to the towing vehicle so that it will be able to pull this type of load.
2. Flip the locking handle upward, being sure the bracket underneath firmly clamps around the ball.



DANGER! Make sure hitch bracket is securely fastened around ball before towing the sawmill. Ball should be completely engaged by the hitch bracket and securely locked in place.

See Figure 2-1.

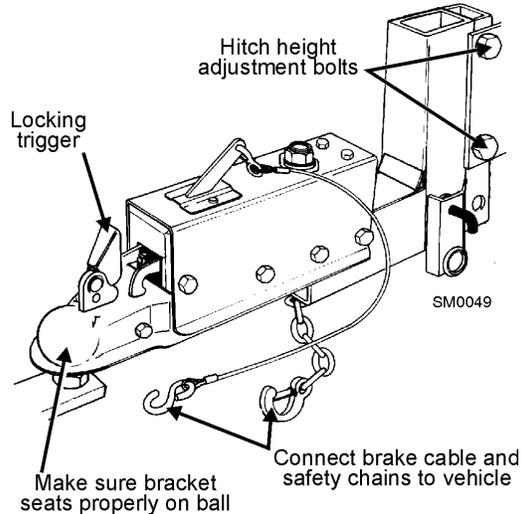


FIG. 2-1

3. Cross the safety chains underneath the hitch and hook to the vehicle. The chains should be connected so that there is still slack in the chains when the vehicle is turned sharply in either direction.



DANGER! 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.

4. Connect the surge brake activator cable to the vehicle. 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.
5. Connect the vehicle running lights to the sawmill pigtail. Check signals and brake lights.
6. Raise the front outrigger. Recheck that all loose items are removed or secured (such as Resaw Option, Shingle/Lapsiding Option, cant hooks, etc.).
7. 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.



DANGER! Be sure that the hitch and safety chains are secure before towing the sawmill. Check all lights and signals for correct operation. Check to see tires are properly inflated and surge brakes are working before towing the sawmill.

SECTION 3 SURGE BRAKE HITCH 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.



WARNING! Always check trailer tires for proper inflation before towing sawmill.

3. Surge Brakes

Check the brakes before towing the sawmill. Jack up the outriggers so that the trailer wheels do not touch the ground. Spin each wheel by hand. The wheel should spin with a slight amount of drag against the brake drums. If the wheel spins freely, the brakes should be adjusted.

See **Figure 3-1**. To adjust the brakes, remove the oval shaped plug from the access hole on the inside of each wheel.

Place a standard screwdriver through the access hole and underneath the adjustment sprocket. Catch the bottom of the sprocket with the screwdriver and pry upward to turn the sprocket. Remove the screwdriver and spin the wheel. Adjust the sprocket until the wheel just starts to drag against the brake drum. Replace the plug. Repeat for the other wheel.

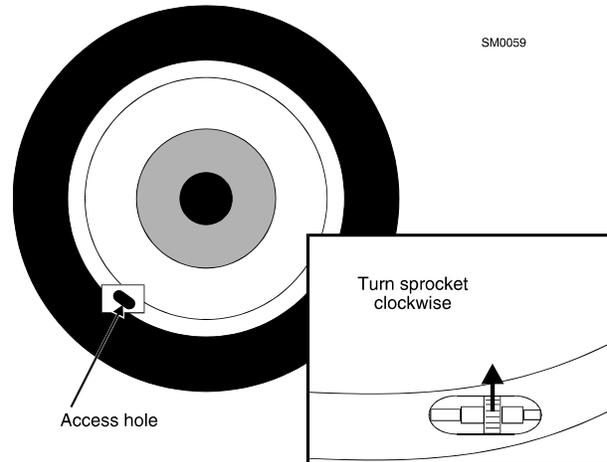


FIG. 3-1

4

Parts Lists

Trailer Hitch Assembly (LT25/LT30 Surge Brake)

SECTION 4 PARTS LISTS

4.1 Trailer Hitch Assembly (LT25/LT30 Surge Brake)				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	HITCH ASSEMBLY,SURGE BRAKE TRAILER	A10405	1	
1	Hitch Mount (W/O Spacer Blocks), Surge Brake Trailer	W09828	1	
	Hitch Mount (With Spacer Blocks), Surge Brake Trailer	W10404	1	
2	Actuator, Dico Surge Brake Hitch	P09840	1	
	Bolt, Surge Brake Latch	P10119	1	
	Bracket, Surge Brake Latch (Lever Hitch)	P12816	1	
	Bracket, Surge Brake Latch (Wheel Hitch)	P10121	1	
	Spring, Surge Brake Latch (Lever Hitch)	P12814	1	
	Spring, Surge Brake Latch (Wheel Hitch)	P10122	1	
3	Cable Assembly, Surge Brake Safety (Lever Hitch)	P12815	1	
	Cable Assembly, Surge Brake Safety (Wheel Hitch)	P10117	1	
4	Hook, Surge Brake Safety Cable	P10118	1	
	Damper, Surge Brake	P10124	1	
	Fitting, Surge Brake Hitch Line	P10370	1	
5	Bolt, 1/2-13 X 4 1/2" Hex Head Grade 5	F05008-35	2	
6	Nut, 1/2-13 Hex Nylon Lock	F05010-8	2	
7	BOLT, 1/2-13 X 5 1/2" HEX HEAD GRADE 5	F05009-11	2	
8	NUT, 1/2-13 HEX LOCK	F05010-4	2	
	TOWING EXTENSION KIT (NOT SHOWN, OPTIONAL)	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	

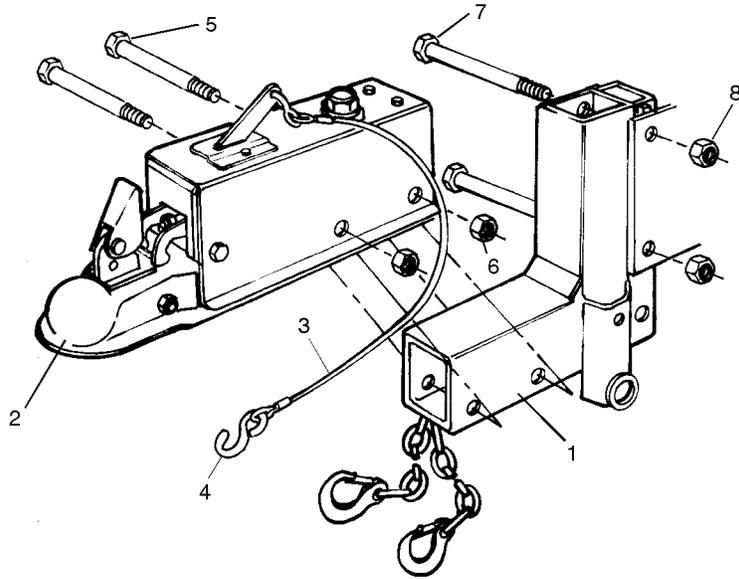


FIG. 4-1

4

Parts Lists

Trailer Hitch Assembly (LT40/30HD/40HD Surge Brake)

4.2 Trailer Hitch Assembly (LT40/30HD/40HD Surge Brake)				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	HITCH KIT, SURGE BRAKE TRAILER	K10403	1	
1	Hitch Mount (W/O Spacer Blocks), Surge Brake Trailer	W09827	1	
	Hitch Mount (With Spacer Blocks), Surge Brake Trailer	W10401	1	
2	Actuator, Dico Surge Brake Hitch	P09840	1	
	Bolt, Surge Brake Latch	P10119	1	
	Bracket, Surge Brake Latch (Lever Hitch)	P12816	1	
	Bracket, Surge Brake Latch (Wheel Hitch)	P10121	1	
	Spring, Surge Brake Latch (Lever Hitch)	P12814	1	
	Spring, Surge Brake Latch (Wheel Hitch)	P10122	1	
3	Cable Assembly, Surge Brake Safety (Lever Hitch)	P12815	1	
	Cable Assembly, Surge Brake Safety (Wheel Hitch)	P10117	1	
4	Hook, Surge Brake Safety Cable	P10118	1	
	Damper, Surge Brake	P10124	1	
	Fitting, Surge Brake Hitch Line	P10370	1	
	Bolt, 1/2-13 X 4 1/2" Hex Head Grade 5	F05008-35	2	
6	Nut, 1/2-13 Hex Nylon Lock	F05010-8	2	
7	Spring, Outrigger Pin	P04282 ¹	1	
8	Washer, 9/16" SAE Flat	F05011-8 ¹	2	
	Pin Kit, Outrigger Pull	A12232 ¹	1	
9	Pin, Outrigger Pull	S12261 ¹	1	◆
10	Pin, 5/16" x 2 1/2" Roll	F05012-47 ¹	1	
11	Pin, 1/8" x 1" Cotter	F05012-1 ¹	1	
12	LEG, OUTRIGGER	W07537	1	
13	Cap, Outrigger Leg	P09926	1	
14	BOLT, 1/2-13 X 5 1/2" HEX HEAD GRADE 5	F05009-11	2	
15	NUT, 1/2-13 HEX LOCK	F05010-4	2	
	TOWING EXTENSION KIT (NOT SHOWN, OPTIONAL)	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	

¹ Outrigger pin and hardware replaced with 3/4" diameter pin and hardware 10/98. Hitch assembly includes updated outrigger pin parts ([See Section 4.11](#)).

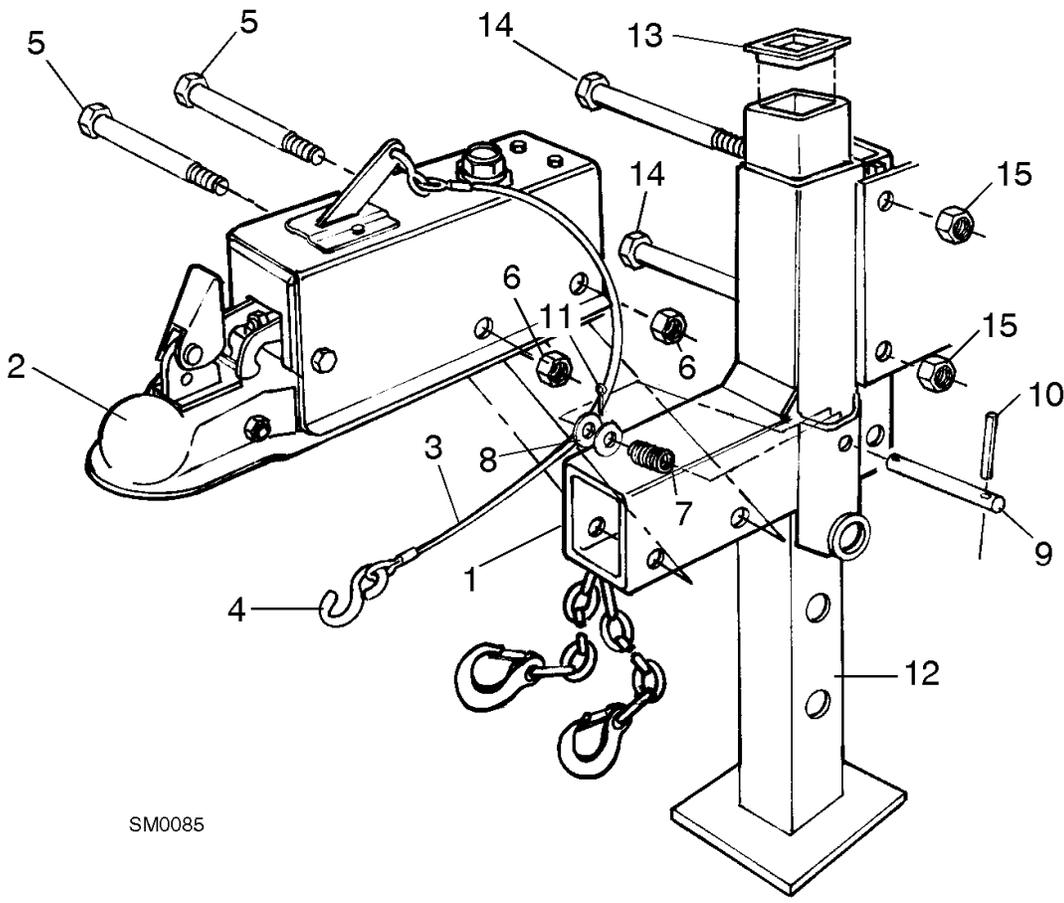


FIG. 4-2

4

Parts Lists

Trailer Axle Assembly (Surge Brake)

4.3 Trailer Axle Assembly (Surge Brake)				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	AXLE ASSEMBLY, 3500# NON-BRAKE	014684	1	
1	Frame, Trailer Axle	W09751	1	◆
	Mount Bracket, Trailer Fender	W09784	2	
2	Axle, 3500 Lb With Springs And Surge Brakes	P09772	1	
3	Spring, 2000lb Dexter Leaf Idle Side Rpl	P09612	1	
4	Spring, 2500lb Dexter Leaf Drive Side	014586	1	
	Bearing Kit, Sawmill Axle Spindle	K07549	1	
5	Bearing Cone Assembly, Small (L44649)	P22573-1	1	◆
6	Bearing Cone Assembly, Large (L68149)	P22572-1	1	◆
7	Bearing Cup, Large (L68111)	P22572-2	1	◆
8	Bearing Cup, Small (L44610)	P22573-2	1	
9	Seal, 13" Wheel Bearing Dust	P07554	1	
	Kit, Brake Shoe Surge 10" X 2 1/4"	010180	2	
10	Cap, Trailer Axle Dust	P04493	2	
11	Tire/Wheel Assembly, ST215/75R14	015987 ¹	2	
	Tire/Wheel Assembly, LT185R14 D Tire	014677 ²	2	
12	Plate, Axle Shackle Link Ptd	M07528	4	
13	Bolt, 9/16-18	P04644	6	
14	Nut, 9/16-18 Lock	P04643	6	
15	Nut, 1/2-20 Lug	P04646	10	
16	BOLT, 1/2-13X4 HEX HEAD	F05008-26	4	
17	WASHER, 1/2 STAR ET	F05011-39	4	
18	WASHER, 1/2" SAE FLAT	F05011-2	4	
19	NUT, 1/2-13 HEX NYLON LOCK	F05010-8	4	
20	FENDER, TRAILER WHEEL	W11452	2	
21	DECAL, FENDER DAMAGE CAUTION	S11761	2	
22	PIN, 5/16X1 DETAINING	F05012-45	2	

¹ Use for LT25 Rev. C6.00, LT30 Rev. G3.00 and LT40 Rev. G4.00 and later.

² Use for mills prior to LT25 Rev. C6.00, LT30 Rev. G3.00 and LT40 Rev. G4.00 or upgrade both wheel assemblies to 015987 to ensure proper mill tracking (the wheel types have slightly different diameters).

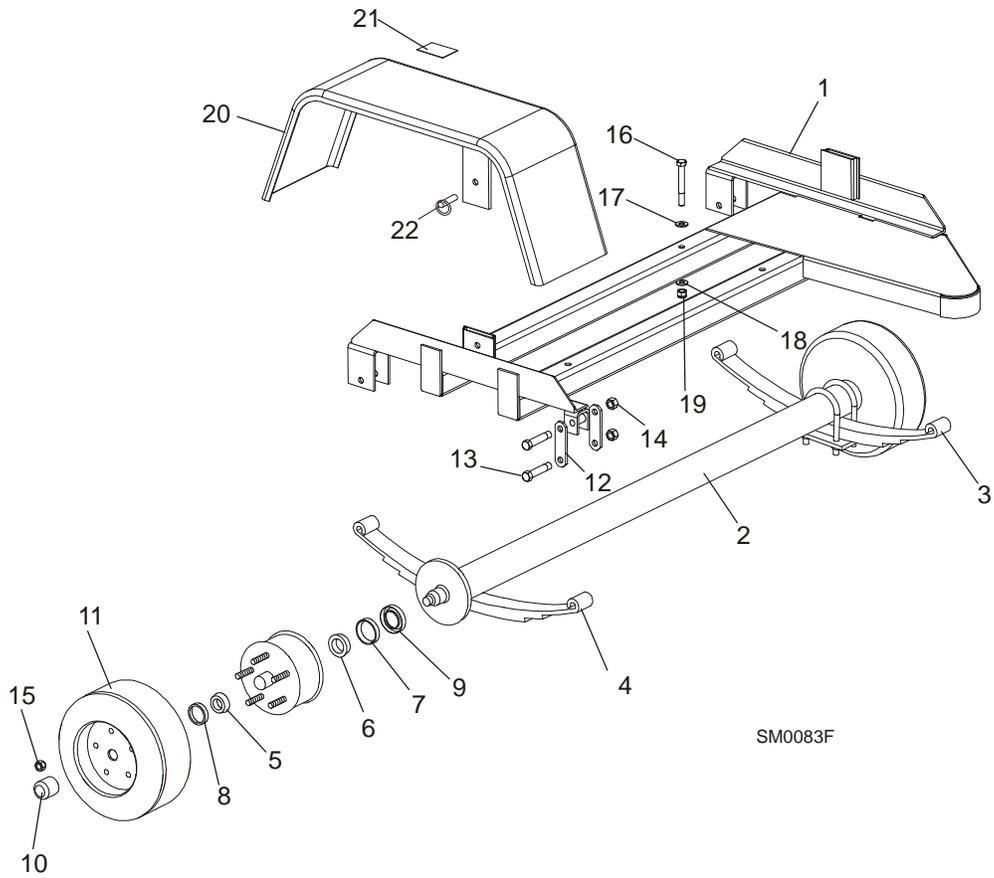


FIG. 4-3

4**Parts Lists***Outrigger Assembly (Long)*

4.4 Outrigger Assembly (Long)				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	OUTRIGGER ASSEMBLY, LONG	A04287	2	
1	Guide, Long Outrigger Guide	W09011	1	
2	Leg, Outrigger	W07537	1	
3	Cap, Outrigger Leg	P09926	1	
4	Spring, Outrigger Pin	P04282 ¹	1	
5	Washer, 9/16" SAE Flat	F05011-8 ¹	2	
	Pin Kit, Outrigger Pull	A12232 ¹	1	
6	Pin, Outrigger Pull	S12261 ¹	1	◆
7	Pin, 5/16" x 2 1/2" Roll	F05012-47 ¹	1	
8	Pin, 1/8" x 1" Cotter	F05012-1 ¹	1	
9	BOLT, 3/8-16 X 5" HEX HEAD GRADE 2	F05007-5	8	
10	NUT, 3/8-16 HEX NYLON LOCK	F05010-10	8	

¹ Outrigger pin and hardware replaced with 3/4" diameter pin and hardware 10/98. Outrigger assembly includes updated outrigger pin parts ([See Section 4.11](#)).

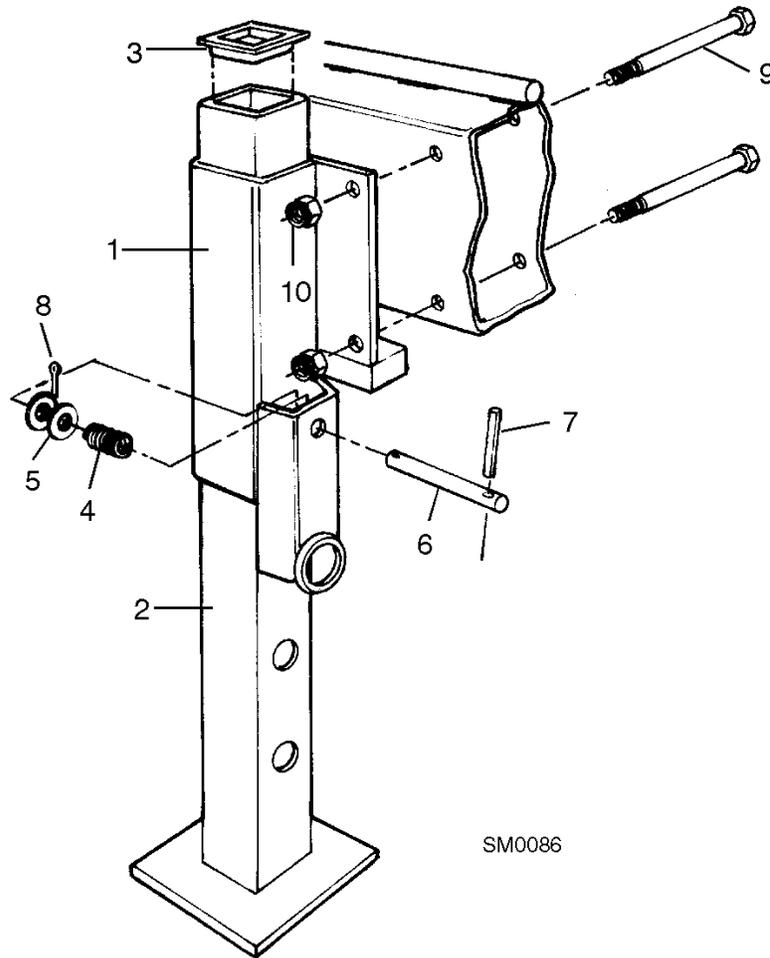


FIG. 4-4

4

Parts Lists

Outrigger Assembly (Short Front)

4.5 Outrigger Assembly (Short Front)				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	OUTRIGGER ASSEMBLY, SHORT FRONT	A04278	1	
1	Guide, Short Front Outrigger Guide	W09012	1	
2	Leg, Outrigger	W07537	1	
3	Cap, Outrigger Leg	P09926	1	
4	Spring, Outrigger Pin	P04282 ¹	1	
5	Washer, 9/16" SAE Flat	F05011-8 ¹	2	
	Pin Kit, Outrigger Pull	A12232 ¹	1	
6	Pin, Outrigger Pull	S12261 ¹	1	◆
7	Pin, 5/16" x 2 1/2" Roll	F05012-47 ¹	1	
8	Pin, 1/8" x 1" Cotter	F05012-1 ¹	1	
9	BOLT, 3/8-16 X 1" HEX HEAD GRADE 2	F05007-7	4	
10	NUT, 3/8-16 HEX NYLON LOCK	F05010-10	4	

¹ Outrigger pin and hardware replaced with 3/4" diameter pin and hardware 10/98. Outrigger assembly includes updated outrigger pin parts ([See Section 4.11](#)).

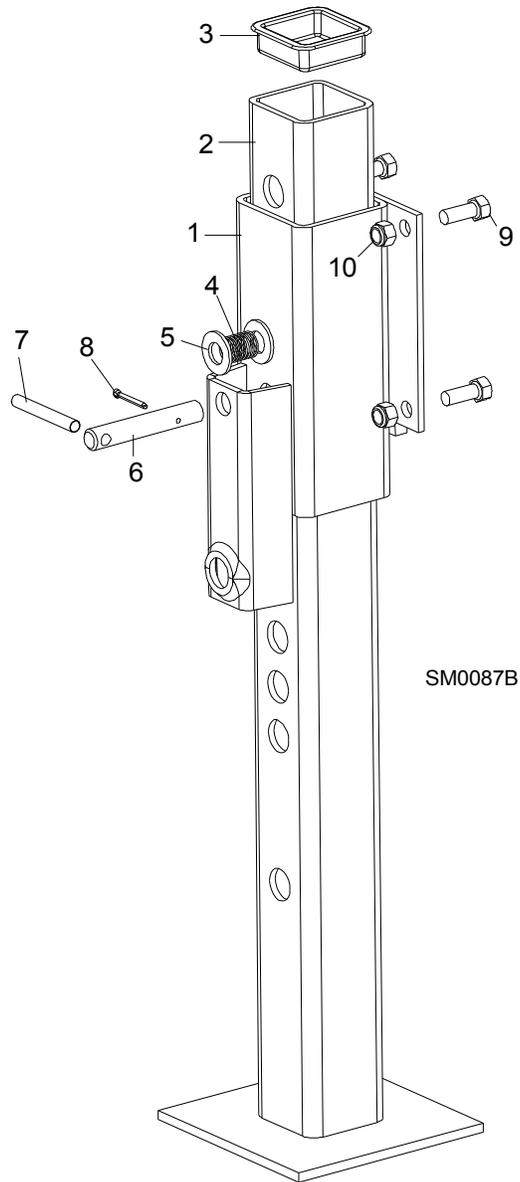


FIG. 4-5

4

Parts Lists

Outrigger Assembly (LT25/LT30/LT40 Short Rear)

4.6 Outrigger Assembly (LT25/LT30/LT40 Short Rear)				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	OUTRIGGER ASSEMBLY, SHORT REAR	A09475	1	
1	Guide, Short Rear Outrigger Guide	W09474	1	
2	Leg, Outrigger	W07537	1	
3	Cap, Outrigger Leg	P09926	1	
4	Spring, Outrigger Pin	P04282 ¹	1	
5	Washer, 9/16" SAE Flat	F05011-8 ¹	2	
	Pin Kit, Outrigger Pull	A12232 ¹	1	
6	Pin, Outrigger Pull	S12261 ¹	1	◆
7	Pin, 5/16" x 2 1/2" Roll	F05012-47 ¹	1	
8	Pin, 1/8" x 1" Cotter	F05012-1 ¹	1	
9	BOLT, 3/8-16 X 1" HEX HEAD GRADE 2	F05007-7	4	
10	NUT, 3/8-16 HEX NYLON LOCK	F05010-10	4	
11	HANDLE, OUTRIGGER LIFT	S04827	1	

¹ Outrigger pin and hardware replaced with 3/4" diameter pin and hardware 10/98. Outrigger assembly includes updated outrigger pin parts ([See Section 4.11](#)).

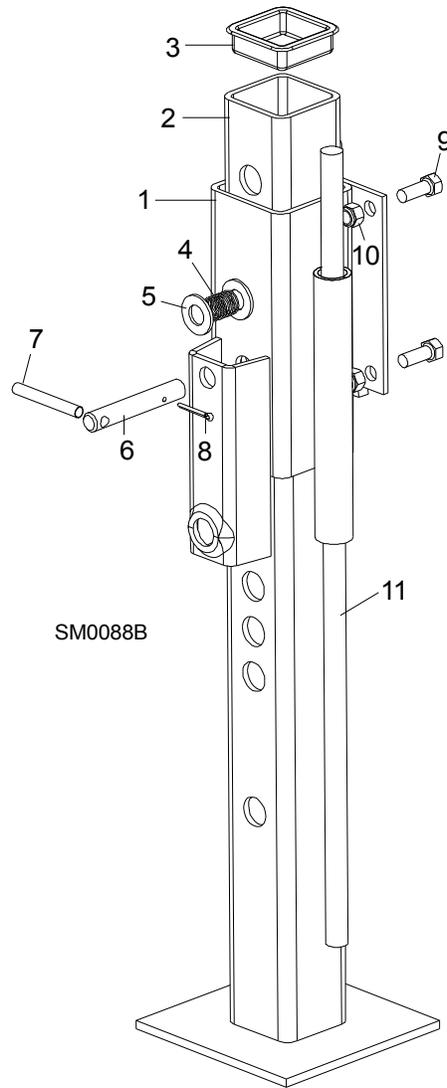


FIG. 4-6

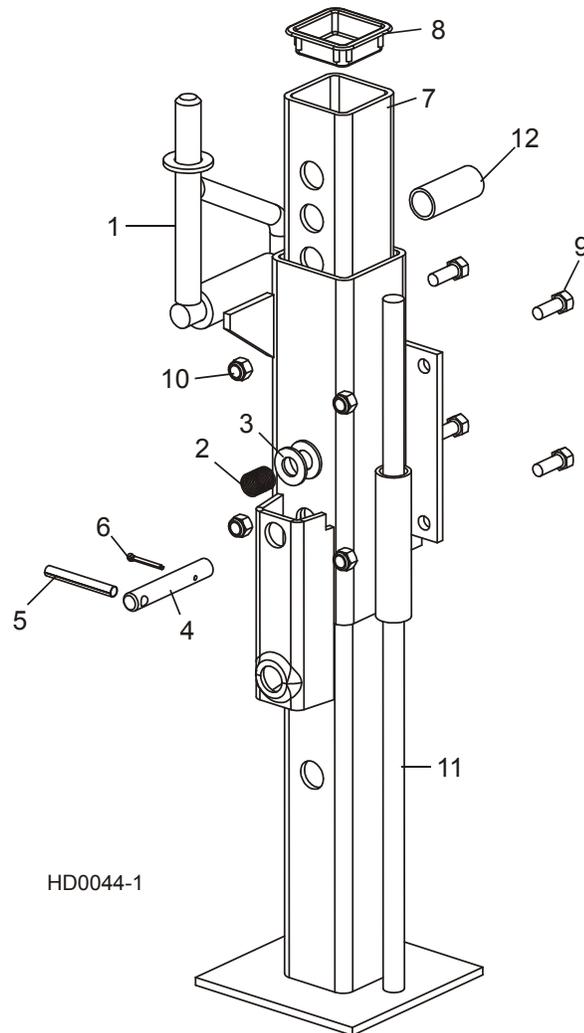
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Parts Lists

Outrigger Assembly (LT30HD/LT40HD Short Rear)

4.7 Outrigger Assembly (LT30HD/LT40HD Short Rear)				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	OUTRIGGER GUIDE ASSEMBLY, HD SHORT REAR	A09276	1	
1	Guide Weldment, Outrigger Leg w/Saw Head Rest Pin	W09275	1	◆
2	Spring, Outrigger Pin	P04282 ¹	1	
3	Washer, 9/16" SAE Flat	F05011-8 ¹	2	
	Pin Kit, Outrigger Pull	A12232 ¹	1	
4	Pin, Outrigger Pull	S12261 ¹	1	◆
5	Pin, 5/16" x 2 1/2" Roll	F05012-47 ¹	1	
6	Pin, 1/8" x 1" Cotter	F05012-1 ¹	1	
7	Leg, Outrigger	W07537	1	
8	Cap, Outrigger Leg	P09926	1	
9	BOLT, 3/8-16 X 1" HEX HEAD GRADE 2	F05007-7	4	
10	NUT, 3/8-16 HEX NYLON LOCK	F05010-10	4	
11	HANDLE, OUTRIGGER LIFT	S04827	1	
12	SPRING, REST PIN	P09557	1	

¹ Outrigger pin and hardware replaced with 3/4" diameter pin and hardware 10/98. Outrigger assembly includes updated outrigger pin parts ([See Section 4.11](#)).



HD0044-1

FIG. 4-7

4**Parts Lists***Outrigger Assembly (LT25L/LT40 /LT40HD Rear)*

4.8 Outrigger Assembly (LT25L/LT40 /LT40HD Rear)				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	OUTRIGGER ASSEMBLY, LT40 REAR	A12083	1	
1	Guide, Short Rear Outrigger Guide	W12082	1	
2	Leg, Outrigger	W07537	1	
3	Cap, Outrigger Leg	P09926	1	
4	Spring, Outrigger Pin	P04282 ¹	1	
5	Washer, 9/16" SAE Flat	F05011-8 ¹	2	
	Pin Kit, Outrigger Pull	A12232 ¹	1	
6	Pin, Outrigger Pull	S12261 ¹	1	◆
7	Pin, 5/16" x 2 1/2" Roll	F05012-47 ¹	1	
8	Pin, 1/8" x 1" Cotter	F05012-1 ¹	1	
9	BOLT, 3/8-16 X 1" HEX HEAD GRADE 2	F05007-7	4	
10	NUT, 3/8-16 HEX NYLON LOCK	F05010-10	4	

¹ Outrigger pin and hardware replaced with 3/4" diameter pin and hardware 10/98. Outrigger assembly includes updated outrigger pin parts ([See Section 4.11](#)).

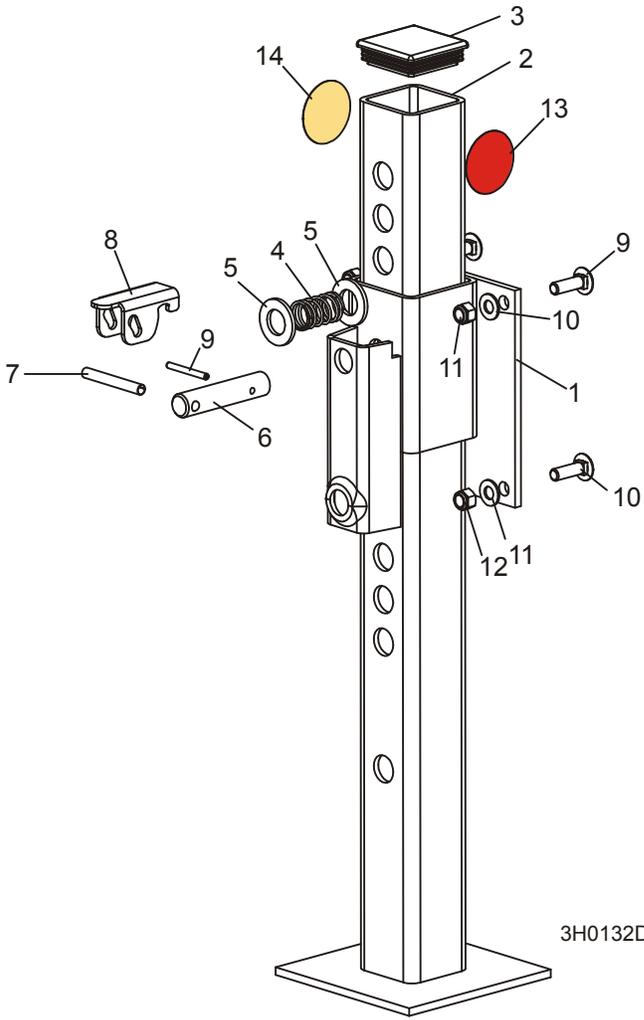


FIG. 4-8

4

Parts Lists

Trailer Lights (Clip-on Tail Light Lens)

4.9 Trailer Lights (Clip-on Tail Light Lens)				
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 AMBER RUNNING (NOT SHOWN)	P12906 ¹	1	
	Lens, Rectangle Amber Running Light	P12922	1	
	Bulb, Rectangle Running Light Replacement	P12923 ²	1	◆
	LIGHT, RECTANGLE RED RUNNING (NOT SHOWN)	P12905 ¹	1	
	Lens, Rectangle Red Running Light	P12921	1	
	Bulb, Rectangle Running Light Replacement	P12923 ²	1	
	LIGHT, ROUND AMBER RUNNING (NOT SHOWN)	P12914 ¹	1	◆
	Light, Round Amber Running Replacement	P12918	1	
	Pigtail, Round Running Light Replacement	P12920	1	
	Grommet, Round Running Light Replacement	P12919	1	
	LIGHT, ROUND RED RUNNING (NOT SHOWN)	P12913 ¹	1	◆
	Light, Round Red Running Replacement	P12917	1	
	Pigtail, Round Running Light Replacement	P12920	1	
	Grommet, Round Running Light Replacement	P12919	1	

¹ Running light replacement parts apply to LT25 rev. B6, LT30 rev. F2, LT40 rev. F3, and LT30HD/40HD rev. F7 and later only.

² Running light bulb P12923 no longer offered. Bulb is readily available at most local auto parts stores.

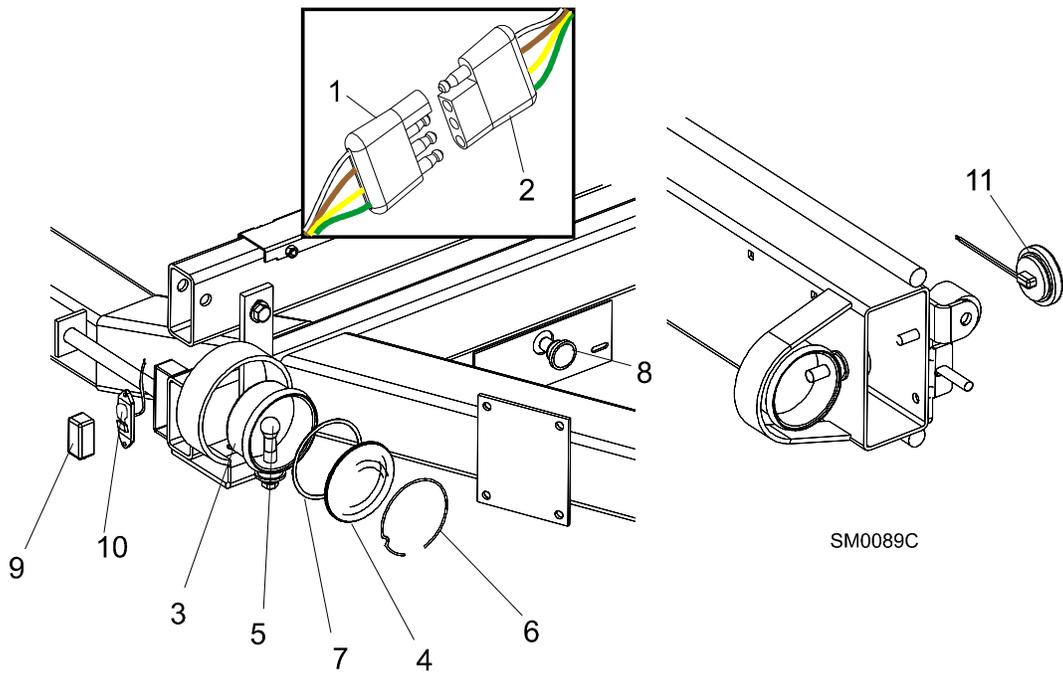


FIG. 4-9

4

Parts Lists

Log Loading Ramps (LT25/LT30/LT40)

4.10 Log Loading Ramps (LT25/LT30/LT40)				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	RAMP KIT, LOG LOADING WITH RETAINERS	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	

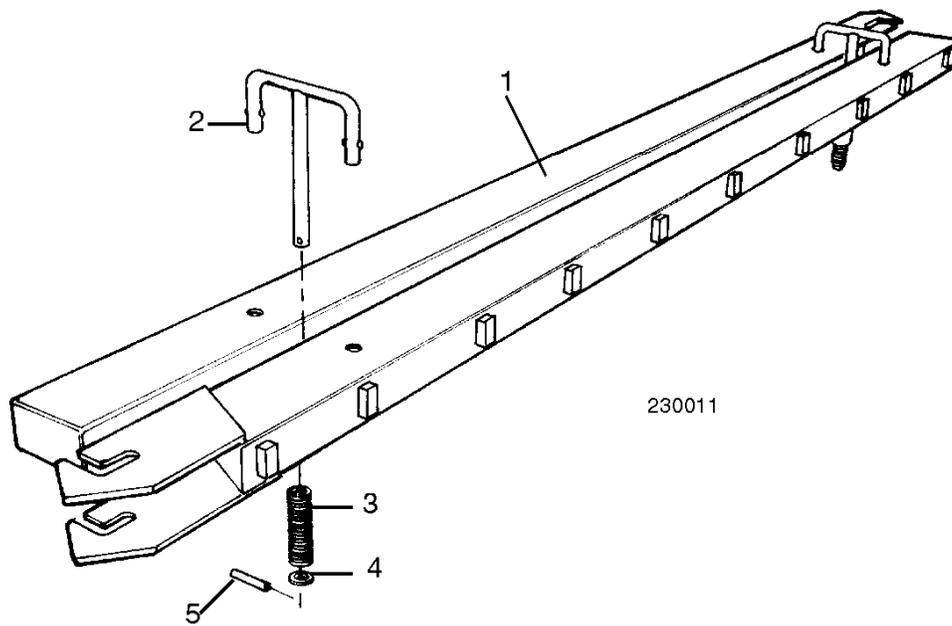


FIG. 4-10

4.11 Outrigger Pin Hardware (3/4" Dia.)				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
1	SPRING, OUTRIGGER PIN	016145	1	
2	WASHER, 3/4" SAE FLAT	F05011-62	2	
	PIN KIT, 3/4" OUTRIGGER PULL	016148 ¹	1	
3	Pin, 3/4" Outrigger Pull	016147	1	◆
4	Pin, 5/16" X 2 1/2" Roll	F05012-47	1	
5	PIN, 1/8" X 1 1/4" COTTER	F05012-59	1	

¹ 3/4" diameter outrigger pin and hardware used with outrigger assemblies supplied after 10/98. See outrigger and hitch assemblies for original 9/16" outrigger pins and parts.

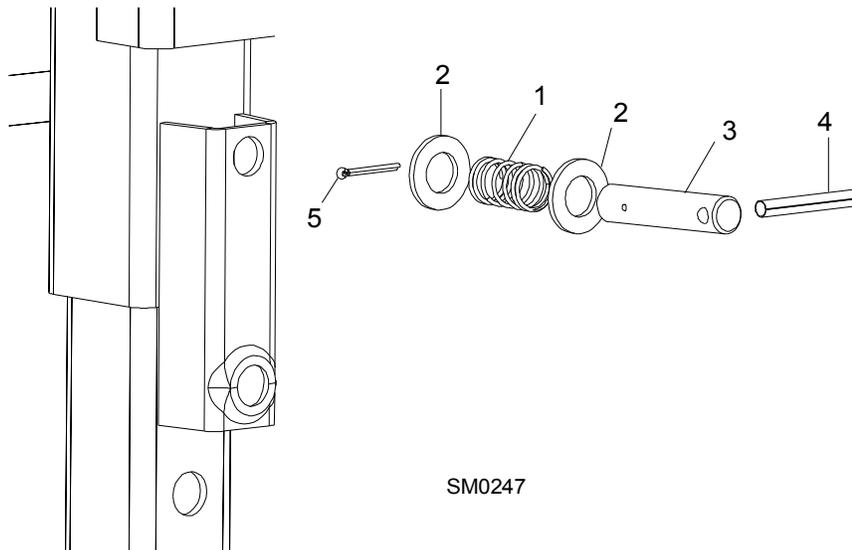


FIG. 4-11