Shingle/Lap Sider

Safety, Operation, Maintenance, & Parts Manual

SLR	rev. G1.03
SLK	Tev. G1.03

Safety is our #1 concern!

Form #621

For use with LT15* through LT70 models.

* LT15 requires an adapter kit: SLRKIT-LT15.1



WARNING! Read and understand this manual before using this machine.



Active Patents assigned to Wood-Mizer, LLC

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SECTION 1 SAFETY

The Shingle/Lap Siding Option (SLR) (see FIG. 2-1) creates tapered shingles or siding with your Wood-Mizer sawmill.



1.1 Safety Symbols

The following symbols and signal words call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions.

DANGER! indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.

WARNING! suggests a potentially hazardous situation which, if not avoided, could result in serious injury or death.

CAUTION! refers to potentially hazardous situations which, if not avoided, may result in minor or moderate injury or damage to equipment.

NOTICE indicates vital information.

WARNING! Clean sawdust from all areas where sawdust may gather **after every 8-hour shift**. Failure to do so may result in fire, causing death or serious injury

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SETUP SAFETY



WARNING! Do not use if the mill is set up on ground with more than a 10 degree incline. An incline could cause the mill to tip over.

Use a lifting device (fork lift, crane, etc.) for parts over 100 lbs.

Use two persons for lifting parts over 50lbs.

Keep all non-essential personnel out of the area while setting up the equipment.



SECTION 2 INSTALLATION

WARNING! Turn the base unit's power to OFF, remove the key, and disconnect the battery ground terminal, if applicable.

> On electric equipment, **lock out power supply** before performing any installation. See Electrical Lockout Procedures (OSHA regulation 1910.147, appendix A reprinted in the Operator's Manual).

Ensure your unit is on a level surface and secure from movement.

Fastener

2.1 Assembly

1. Uncrate the SLR; discard the shipping braces (total 8) and fasteners. See FIG. 2-1.

	Part	Part number	Qty	
	SLR Fastener Kit	130832	1	
bag contains:	Bolt, 3/8-16x1 Gr5 HH	F05007-87	32	
	Washer, 3/8 Flat SAE	F05011-3	40	
	Nut, 3/8-16 Flanged Nylock	F05010-222	32	
	Washer, 3/8 Split Lock	F05011-4	8	_
	Bolt, 3/8-16x3/4 Gr5	F05007-118	8	
	Nut, 5/8-18 Hex jam	F05010-11	1	
	Knob, 5/8-18 Ball	P04211	1	
	Plate, SLR Link Arm Joint	128328	6	
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2. Lay out the frames as shown in FIG.2-2 to attach plates as shown in FIGs. 2-2 and 2-3



2.2 Installation and Setup

WARNING! Use a lifting device (fork lift, crane, etc.) for parts over 100 lbs.

Use two persons for lifting parts over 50lbs.¹

- **1.** Position the sawhead upward, out of the way.
- 2. Lower all log supports.





- 3. Move front pivoting SLR stop against bed rail parallel to the board stop block bed frame. 4. Position the SLR on Shift handle the mill bed with the towards the front mounting brackets around the front and rear bed rails. a. Position the shift handle at the front end of the mill. b. Ensure the Log supports down SLR frame is lying flat on the bed rails. Front bed rail out **NOTICE: DO** of the way NOT tighten the FIG. 2-4 clamp bolts on the bed rails. The SLR bed must be able to move during operation. The clamp bolts should only be tightened before towing the sawmill with the SLR attached.
- 5. Slide the SLR frame all the way over toward the inboard side of the sawmill bed until the SLR stops touch the bed rail stop blocks.

^{1.}For more information on lifting safety see NOISH Lifting Equation at https://www.cdc.gov/niosh/docs/94-110/

SECTION 3 LT15 INSTALLATION



WARNING! Turn the base unit's power to OFF, remove the key, and disconnect the battery ground terminal, if applicable.

On electric equipment, lock out power supply before performing any installation. See Electrical Lockout Procedures (OSHA regulation 1910.147, appendix A reprinted in the Operator's Manual).

Ensure your unit is on a level surface and secure from movement.

3.1 LT15 Rev. E6.04+

(Bed Sections Rev. G.00+): Kit SLRKIT-LT15.1 is required to mount the SLR.

- 1. Place the rail adapter on the second and third bed rails of the first bed section as shown in FIG. 3-1.
- 2. Slide the adapter against the bed rail stop blocks.

NOTE: If the adapter contacts the log support first, raise the support to the height of the adapter and use the log support as the side starting point.

- **3.** Relocate the SLR shift handle to avoid interference with the front bed rail. See FIG. 3-2
 - **a.** Unbolt and unpin the handle shaft from the frame.
 - **b.** Unbolt and unpin the cam shaft.
 - **c.** Remove the cam from the cam shaft.
 - **d.** Slide the handle shaft in former position of the cam shaft, sliding the cam on the shaft while inserting.
 - **e.** Bolt and pin the handle shaft to the frame.
 - **f.** Slide the cam shaft in former position of the handle shaft.



- g. Bolt and pin the cam shaft to the frame.
- 4. Position the SLR on the bed with the shift handle toward the front of the sawmill.
- 5. Push the SLR stops against the rail adapter.
- 6. Screw in the handle to the handle shaft..
- 7. Continue SLR set up. See Section SECTION 4 Shingle Operation or Section SECTION 5 Lap Siding Operation.

3.2 LT15 Rev. E4.00 - E6.03

(Bed Sections Rev. E.00 - F.00): Kit SLRKIT-LT15 is required to mount the SLR.

- 1. Place the rail adapter on the last bed rail of the second bed section as shown.
- 2. Adjust the stop bolt against the frame tube.
- **3.** Install the stop block to the last bed rail of the first bed section and tighten the clamp bolt.
- 4. Position the SLR on the bed with the shift handle toward the front of the sawmill.
- 5. Push the SLR stops against the rail adapter and stop block.



3.3 LT15 Rev. A0.00 - E3.03

(Bed Sections Rev. A0.00 - D.06): Auxiliary bed rail (part number 016037) needed.

- 1. Mount the auxiliary bed rail near the end of the middle bed section as shown (See LT15 manual for details).
- 2. Position the SLR on the bed with the shift handle toward the front of the sawmill.
- **3.** Push the SLR stops against the bed rail stop blocks.





SECTION 4 SHINGLE OPERATION

4.1 Shingle setup

Shingle Block Size			
Length	max	24"	610 mm
	min	14"	355 mm
Width	max	12"	305mm
Height	max	12"	305 mm

- 1. Install the SLR to the sawmill bed.
- Position the siding taper adjustment bolts fully down (clockwise) until you can spin the siding lift rollers by hand. See 2. FIG. 5-1.

NOTE: The lift rollers should not tilt the SLR frame when the shift handle is thrown.



NOTE: If not already done so, position the cams **approximately 1.5 inches away** from the frame to prevent necessary realignment between lap siding and shingle use.



Downward pointing tooth

Adjust the inner clamps as close to the SLR frame as possible to ensure the rear of the blocks are positioned over the



cams. See FIG. 5-3.

- 3. Clamp up to six shingle blocks, one over each cam. See FIG. 5-3.
- Turn the clamp handle clockwise to firmly clamp the block in position to prevent movement during operation. 4.
- 5. Lower the shift handle.
- Make a trim cut across all the blocks to even them out. 6.
- 7. Calculate the desired shingle size:

Thick end - Thin end = Cut setting



- **11.** Adjust the shingle taper adjustment bolt in until it contacts the shift handle linkage.
- 12. Set the jam nut on the shingle taper adjustment bolt.

4.2 Shingle cutting operation



8.

9.

WARNING! Follow all safety and operating procedures stated in the operation manual for your mill.

Operation

- 1. Lower the shift handle completely downward.
- 2. Make one trim cut to level all the blocks.
- 3. Lower the blade the thickness of the **thin end** of the shingle.
- 4. Raise the shift handle.
- **5.** Make a cut and return the carriage.

NOTE: Each shingle should match tapers to the setting you want. If they don't match, repeat step 2 above.

- 6. Push the shift handle down and lower the blade the thickness of the thick end of the shingle.
- 7. Make a cut and return the carriage.
- 8. Repeat steps 3 7 down to the heart of the cants.
- **9.** Unclamp the cants, flip 180°, and reclamp.
- 10. Continue sawing down as low as the SLR clamps will allow.

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SECTION 5 LAP SIDING OPERATION

5.1 Lap siding setup

To cut tapered siding, a single cant is clamped in the SLR. The siding taper adjustment bolts are adjusted up so the lifting rollers tilt the SLR frame. When the shift handle is thrown, the SLR frame tilts sideways.

NOTE: Maximum cant width is 12" (304.8 mm) and 12 ft long.

- 1. Install the SLR to the sawmill bed. .
- 2. Adjust the shingle taper adjustment bolt to 1/4". See FIG.5-1, Section SECTION 4 Shingle Operation.

This will stop the shift handle when the lift rollers reach their maximum height.

- 3. Adjust the siding taper adjustment bolts all the way up so they do not lift the SLR frame from the bed rails.
- **4.** Adjust the inner clamp halves inside the shingle cams to avoid interference with the cant.

NOTE: To saw cants wider than 10", the cams must be adjusted out of the way.

- **5.** Be sure to mark each cam location so it can be returned to its original position for sawing shingles.
- **6.** Loosen the cam set screws and slide the cam along the shaft.
- 7. Reset the cams according to <u>Section SECTION 4</u> <u>Shingle Operation</u>.
- **8.** Position the cant so it is centered in the SLR frame.



- **9.** Tighten the front clamp to secure one end of the cant.
- **10.** Slide the outer clamp half in until it contacts the block.
- **11.** Turn the clamp handle clockwise to firmly clamp the block in position.
- **12.** Be sure the block is securely clamped so the block will not come loose while being cut.





TABLE 5-1

- **15.** Before adjusting the SLR for the amount of siding taper, pull the shift handle up and make a trim cut to level the cant.
- **16.** Move the blade so it is positioned even with the top of the cant.
- 17. Push the shift handle down and measure the amount of taper.
- **18.** Adjust the front siding taper adjustment bolt down to adjust the amount of taper.



22. Pull the shift handle up and lower the saw head the thickness of the thick end plus the thickness of the thin end plus the thickness of the blade (B + A + Blade Thickness).

Allowing for a 3/16" blade thickness in the example above, the second drop would be 5/8" (5/16" + 1/8" + 3/16").

- **23.** Make a cut and return the carriage.
- 24. Repeat Steps 19 23 down to the heart of the cant.
- **25.** Unclamp the cant, flip 180° and reclamp.
- 26. Continue sawing down as low as SLR clamps will allow.



SECTION 6 REPLACEMENT PARTS

6.1 Frame 1



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	128377	ASSY, SLR FRAME 1		1
	128378	Assy, SLR Clamp		2
1	P05144	Clamp, Pony		1
2	P05120	Shaft, Lap Siding Pony Clamp		1

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REF	PART #	DESCRIPTION	COMMENTS	QTY.
3	P05146	Cap, 1/2 NPT Hex Pipe		1
	A07327	Cam Assy		2
4	F05007-12	Screw, 3/8-16x1/2 SH Cup Pt Set		2
5	S05129	Cam, SLR		1
6	105908	Bushing, .635x7/8x1/2 Bronze		8
	A07329	Shaft, Cam Shakemaker		2
7	F05011-19	Washer, 5/8x15/16x.094 Nylon		2
8	W05138	Weldment, Cam Shaft		1
	110275	Assy, SLR Roller Bearing Arm		1
9	110273	Weldment, SLR Roller Shaft		1
10	F05010-6	Nut, 5/16-18 Swaged Hex		1
11	S05142	Sleeve, SLR Bearing		1
12	P06030-1	Bearing, 5/8x1.5748x.4724		1
13	F05006-13	Bolt, 5/16-18x2 FT HH		1
14	F05012-16	Pin, 3/16x1 1/4 Roll		1
15	W05136	Wldmt, Roller Sleeve Arm		1
16	F05008-124	Bolt, 1/2-13x2-1/4 HH Zn Gr2		2
17	P05155	Spring		1
18	F05012-16	Pin, 3/16x1 1/4 Roll		1
19	F05012-135	Pin, 5/8 In Clevis Retaining		4
20	130815	Weldment, Handle Shaft		1
21	F05011-19	Washer, 5/8x15/16x.094 Nylon		2
22	F05008-33	Bolt, 1/2-13x1 1/2 HH Gr5		8
23	128319	Weldment, SLR Frame 1		1
24	F05010-1	Nut, 3/8-16 Hex		1
25	F05007-129	Bolt, 3/8-16x1 3/4 FT Gr5		1
26	F05007-7	Bolt, 3/8-16x1 HHC		1
27	128325	Plate, SLR Link Arm 1		1
28	F05010-25	Nut, 3/8-16 Swaged Lock		1
29	F05012-136	Pin, 3/8 In Clevis Retaining		3
30	F05012-8	Pin, 3/8x1 3/32 Clevis Zinc Plated		3
	130816	Assembly, Handle SLR		1
31	F05010-11	Nut, 5/8-18 Hex Jam		1
32	130814	Round, SLR Handle		1
33	P04211	Knob, 5/8-18 Ball		1



6.2 Frame 2



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	128379	ASSY, SLR FRAME 2		1
1	F05012-135	Pin, 5/8 in Clevis Retaining		2
2	105908	Bushing, .635x7/8x1/2 Bronze		4
3	A07327	Cam Assy	(See Section 6.1)	2
4	A07329	Shaft, Cam Shakemaker	(See Section 6.1)	2
5	128378	Assy, SLR Clamp	(See Section 6.1)	2
6	128320	Weldment, SLR Frame 2		1
7	F05012-136	Pin, 3/8 in Clevis Retaining		2
8	F05012-8	Pin, 3/8x1 3/32 Clevis Zinc Plated		2
9	128326	Plate, SLR Link Arm 2		1
10	F05007-87	Bolt, 3/8-16x1 HH Gr5		32
11	F05011-3	Washer, 3/8 Flat SAE		40
12	128328	Plate SLR Link Arm Joint		6
13	128311	Plate, SLR Brace		4
14	F05010-222	Nut, 3/8-16 Flanged Hex Nylock		32
15	F05011-4	Washer, 3/8 Split Lock		8
16	F05007-118	Bolt, 3/8-16x3/4 HH Gr5		8

6.3 Frame 3



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	128380	ASSY, SLR FRAME 3		1
1	F05012-135	Pin, 5/8 in Clevis Retaining		3
2	105908	Bushing, .635x7/8x1/2 Bronze		6
3	A07329	Shaft, Cam Shakemaker	(See Section 6.1)	2
4	A07327	Cam Assy	(See Section 6.1)	2
5	128378	Assy, SLR Clamp	(See Section 6.1)	2
6	110275	Assy, SLR Roller Bearing Arm	(See Section 6.1)	1
7	F05008-124	Bolt, 1/2-13x2-1/4 HH Zn Gr2		1
8	P05155	Spring		1
9	F05012-16	Pin, 3/16x1 1/4 Roll		1
10	128323	Weldment, SLR Frame 3		1
11	F05012-136	Pin, 3/8 in Clevis Retaining		3
12	128327	Plate, SLR Link Arm 3		1
13	F05012-8	Pin, 3/8x1 3/32 Clevis Zinc Plated		3
14	F05008-33	Bolt, 1/2-13x1 1/2 HH Gr5		4
15	F05011-3	Washer, 3/8 Flat SAE		3



6.4 LT15 Adapters



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	SLRKIT-LT15.1	MOUNT ASSY, SLR/ LT15 BED REV. G.00		1
1	130835	Plate, SLR LT15		4
2	006910	Mount Wldmt, 5x2 LT15 SLR		1
	SLRKIT-LT15	MOUNT ASSY, SLR/ LT15 BED REV E00 TO F00		1
3	F05007-73	Bolt, 3/8-16x3 HH Gr5		1
4	047693	Mount Weldment, LT15 SLR		1
5	F05010-29	Nut, 3/8-16 Jam		2
6	F05006-27	Bolt, 5/16-18x1 Gr5 HH		1
7	047694	Block, SLR Stop		1

6.5 LX 25/55 Adapters



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	SLRKIT-LX25-LX55	Assy, SLR-Mizer LX25/55 Install. Kit		1
	117989	Assy, Front Kit		1
1	F05022-22	Bolt, M10-1.5x90 HH Class 8		2
2	F05011-134	Washer, M10 Flat		6
3	117990	Wldmnt, Brace		1
4	117994	Wldmnt, Front Support		2
5	F05027-47	Nut, M10-1.5 Flanged Nylon Lock		6
6	F05022-18	Bolt, M10-1.50 x 35MM HH Gr 8.8		4
	117997	Assy, Rear Kit		1
7	117990	Wldmnt, Brace		1
8	117998	Wldmnt, Rear Support		2
9	F05011-134	Washer, M10 Flat		6
10	F05022-22	Bolt, M10-1.5x90 HH Class 8		2
11	F05022-18	Bolt, M10-1.50 x 35MM HH Gr 8.8		4
12	F05027-47	Nut, M10-1.5 Flanged Nylon Lock		6
13	118120	Bracket, SLR Brace		4



6.6 LX 150/250 Adapter



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	SLRKIT-LX150-LX250	Assy, SLR LX150/250 Install. Kit		1
1	118119	Wldmnt, Left Support		1
2	117990	Wldmnt, Brace		1
3	118115	Wldmnt, Right Support		1
4	F05010-222	Nut, 3/8-16 Flanged Hex Nylock		2
5	F05011-61	Washer, 3/8 SAE Flat		2
6	F05004-123	Bolt, 3/8-16X3 1/2 HH Gr5		2
7	F05008-113	Bolt, 1/2-13x3 HH FT G8		4
8	F05010-35	NUT, 1/2-13 FREE HEX, ZINC		4

6.7 LT15 Auxiliary Bed Rail

Used for LT15 bed sections revisions A.00 through E.3.03.



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	016037	RAIL KIT, LT15 SLR AUX BED RAILW/BLK		1
1	016036	Rail Weldment, LT15 Aux Bed W/Block		1
2	F05007-29	Screw, 3/8-16x2 3/4 HHC		3
3	F05007-1	Bolt, 3/8-16x3 FT HH		1
4	F05011-3	Washer, 3/8 Flat SAE		4
5	F05010-25	Nut, 3/8-16 Swaged Lock		4
	016037-829	Instr. Sheet, Aux Bed Rail W/Block		1