

5025 18" Cut Off Saw Owners Manual



Oliver Machinery Seattle, WA info@olivermachinery.net M-5025 5/2003 © Copyright 2003 www.olivermachinery.net

Warranty

Oliver makes every effort possible to assure that its equipment meets the highest possible standards of quality and durability. All products sold by Oliver are warranted to the original customer to be free from defects for a period of 2 (two) years on all parts, excluding electronics and motors, which are warranted for 1 year. Oliver's obligation under this warranty shall be exclusively limited to repairing or replacing (at Oliver's option) products which are determined by Oliver to be defective upon delivery F.O.B. (return freight paid by customer) to Oliver, and on inspection by Oliver. This warranty does not apply to defects due, directly or indirectly, to misuse, abuse, negligence, accidents, unauthorized repairs, alterations, lack of maintenance, acts of nature, or items that would normally be consumed or require replacement due to normal wear. In no event shall Oliver be liable for death, personal or property injury, or damages arising from the use of its products.

Warning

Read this manual thoroughly before operating the machine. Oliver Machinery disclaims any liability for machines that have been altered or abused. Oliver Machinery reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

For More Information

Oliver Machinery is always adding new Industrial Woodworking products to the line. For complete, up-todate product information, check with your local Oliver Machinery distributor, or visit www.olivermachinery.net

WARNING

Read this manual completely and observe all warning labels on the machine. Oliver Machinery has made every attempt to provide a safe, reliable, easy-to-use piece of machinery. Safety, however, is ultimately the responsibility of the individual machine operator. As with any piece of machinery, the operator must exercise caution, patience, and common sense to safely run the machine. Before operating this product, become familiar with the safety rules in the following sections.

- Always keep guards in place and in proper operating condition. Do not operate the machine without the guards for any reason.
- 1. **Read, understand and follow** the safety and operating instructions found in this manual. Know the limitations and hazards associated with this machine.
- 2. **Electrical grounding:** Make certain that the machine frame is electrically grounded and that a ground lead is included in the incoming electrical service. In cases where a cord and plug are used, make certain that the grounding plug connects to a suitable ground. Follow the grounding procedure indicated in the National Electrical Code.
- 3. **Eye safety:** Wear an approved safety shield, goggles, or glasses to protect eyes. Common eyeglasses are only impact-resistant, they are not safety glasses.
- 4. **Personal protection:** Before operating the machine, remove tie, rings, watch and other jewelry and roll up sleeves above the elbows. Remove all loose outer clothing and confine long hair. Protective type footwear should be used. Where the noise exceeds the level of exposure allowed in Section 1910.95 of the OSHA Regulations, use hearing protective devices. Do not wear gloves.
- 5. **Guards:** Keep the machine guards in place for every operation for which they can be used. If any guards are removed for maintenance, DO NOT OPERATE the machine until the guards are reinstalled. The blade guard is air actuated; it is also a clamp for stock. Never shut off or disconnect air while operator or bystanders are near guard.
- 6. Work area: Keep the floor around the machine clean and free of scrap material, saw dust, oil and other liquids to minimize the danger of tripping or slipping. Be sure the table is free of all scrap, foreign material and tools before starting to cut. Make certain the work area is well lighted and that a proper exhaust system is used to minimize dust. Use anti-skid floor strips on the floor area where the operator normally stands and mark off machine work area. Provide adequate work space around the machine.
- 7. **Operator position:** Maintain a balanced stance and keep your body under control at all times.
- 8. **Before starting:** Before turning on machine, remove all extra equipment such as keys, wrenches, scraps, and cleaning rags away from the machine.
- 9. **Careless acts:** Give the work you are doing your undivided attention. Looking around, carrying on a conversation, and "horseplay" are careless acts that can result in serious injury.
- 10. **Disconnect all power sources** (both air and electric) before performing any service, maintenance, adjustments or when changing blades. When the air line is disconnected or turned off, the guard will immediately drop down to the table. Keep hands clear of guard at all times. A machine under repair should be RED TAGGED to show it should not be used until the maintenance is complete.

- 11. **Maintain cutting tools in top condition:** Keep blades sharp and clean for safe and best performance. Dull tools increase noise levels and can cause kickbacks and glazed surfaces. Check the condition and adjustment of the tools before making any cuts.
- 12. **Hand safety:** Keep hands outside the machine. Do not clear chips and sawdust with hands; use a brush.
- 13. Job completion: If the operator leaves the machine area for any reason, the cut-off saw should be turned "off" and the blade should come to a complete stop before their departure. In addition, if the operation is complete, they should clean the saw and the work area. NEVER clean the saw with power "on" and never use hands to clear sawdust and debris; use a brush.
- 14. **Replacement parts:** Use only genuine Oliver Machinery factory authorized replacement parts and accessories; otherwise the warranty and guarantee is null and void.
- 15. **Misuse:** Do not use this Oliver cut-off saw for other than its intended use. If used for other purposes, Oliver disclaims any real or implied warranty and holds itself harmless for any injury or damage which may result from that use.
- 16. **If you are not** thoroughly familiar with the operation of cut-off saws, obtain advice from your supervisor, instructor or other qualified person.
- 17. **Drugs, alcohol and medication:** Do not operate this machine while under the influence of drugs, alcohol, or any medication.
- 18. **Health hazards:** Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead-based paint.
 - Crystalline silica from bricks and cement and other masonry products.
 - Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specifically designed to filter out microscopic particles.

Familiarize yourself with the following safety notices used in this manual:

CAUTION: (This means that if precautions are not heeded, it may result in minor or moderate injury and/or possible machine damage)

WARNING: (This means that if precautions are not heeded, it could result in serious injury or possibly even death).

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Specifications

Main Motor	1 Ph, 7-1/2 HP, 220V Only
Arbor Speed	
Cutting Capacity at MAX Height	
Cutting Capacity Width	
Table Size	
Table Height	
Air Supply Required (cfm/psi)	15 cfm / 70 psi
Cycles per Minute (max)	
Dust Port	
Gross Weight	

Contents of the Shipping Container

18" Cut Off Saw

- 1. Oliver 18" Cut Off Saw
- 1. Cabinet Door Key

Toolbox Contents

- 1. Breaker Bar
- 1. 19mm Socket
- 3. Open End Wrenches
- 6. Hex Angle Wrenches

Outfeed Roller Box (optional accessory)

- 1. Outfeed Roller Set
- 1. Support Leg
- 1. Rail
- 3. Stops
- 2. Measuring Tapes

Infeed Roller Box (optional accessory)

- 1. Infeed Roller Set
- 4. Adjustable Feet
- 2. 90 Degree Mounting Brackets
- 1. Support Leg

Uncrating the Machine

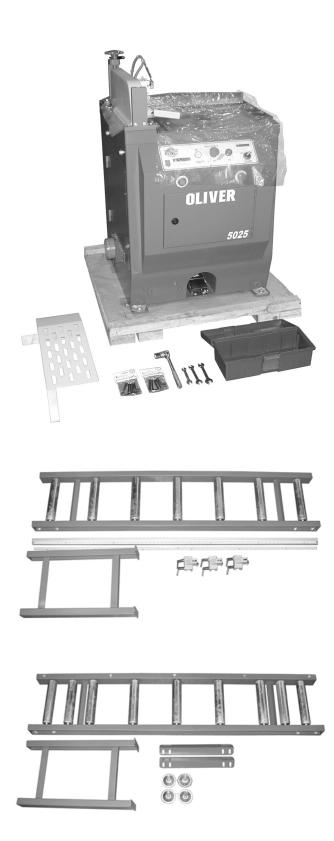
Uncrate the machine and inspect the unit for signs of shipping damage. If damage is found, contact your dealer immediately. For protection against shifting during transport, the base of the cutoff saw was bolted to the shipping pallet in four places. Remove these bolts. Retain all packaging materials in case it becomes necessary to ship the machine back to the dealer, or to another site.

Machine Preparation and Setup

A forklift can be used to lift the machine from underneath.

The saw must be positioned on a smooth, level surface.

Clean all rust protected surfaces with a good commercial solvent. Do not use acetone, gasoline, lacquer thinner or any type of flammable solvent, or a cleaner that may damage paint. Cover cleaned surfaces with WD-40 or a 20W machine oil.



Assembly

Note: There is a key (A, Figure 1) attached just below the knob that is used to open the door on the front of the cabinet.

1. Mount the guard (B, Figure 1) to the saw with three hex cap bolts and three flat washers (C, Figure 1).

Connecting to Air

Connect air hose to the Oliver 18" Cut-Off Saw at the male quick connect fitting (D, Figure 2).

Pull up on adjustment knob (E, Figure 2) and turn to set the air pressure to approximately 70 psi. Push adjustment knob down to lock.

Drain any water that may accumulate in the collector by opening the valve (F, Figure 2).

Add air tool oil to the container (G, Figure 2) whenever the oil level reaches the minimum mark on the container.

Electrical Connections

! WARNING

Electrical connections and wiring must be done by a qualified electrician. The machine must be properly grounded. Failure to comply may cause serious injury!

This cut-off saw is available in both 1-Phase and 3-Phase versions.

Electrical Connections for a 3-Phase Unit

This cut-off saw is 3-Phase, 220V/440V **pre-wired 220V** If you need to switch the saw from 220V to 440V have a qualified electrician make the changes.

Note: If re-wiring to 440 volt it is not only necessary to re-wire the motor it is also necessary to re-position the fuse from the 220 to the 440 volt side of the transformer. Failure to do so will result in transformer failure.

- 1. Disconnect machine from power source!
- 2. Remove four screws (H, Figure 2) that secure the cover to the connection box.
- 3. Insert the power cable through strain relief, and attach the wires to the terminals.
- 4. Re-install the connection box cover. With 3 Ph power verify the motor is turning in the

proper direction. Disconnect Note: machine from power source, open the blade access door, remove the internal clear panel, and remove the blade (see "Installing/Changing Blade"). Re-connect the power and turn on the saw motor (see "Operating Controls"). Observe the rotation of it should the arbor rotate _ counterclockwise the LH model. on clockwise on the RH model. If it does not. turn off the machine, disconnect power, and switch any two of the three electrical leads.

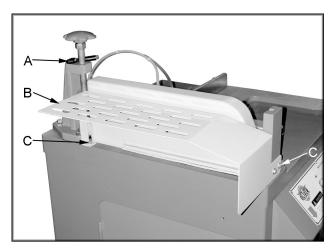


Figure 1

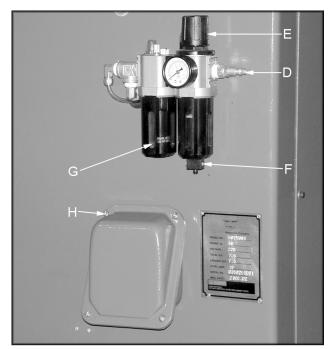


Figure 2

Electrical Connections for a 1-Phase Unit

This cut-off saw has been wired to accept 1-Phase, **220V power only**. Maximum current draw is approximately 37 amps. Oliver Machinery recommends using a dedicated circuit.

Make sure the voltage of your power supply matches the specifications on the motor plate of the machine.

! WARNING

Electrical connections and wiring must be done by a qualified electrician. The machine must be properly grounded. Failure to comply may cause serious injury!

- 1. Disconnect machine from power source!
- 2. Remove four screws (H, Fig. 2) that secure the cover to the connection box.
- 3. Insert the power cable through strain relief, and attach the wires to the terminals.
- 4. Re-install the connection box cover.

Connecting to a Dust Collector

The dust collection port is located at the side of the machine, (A, Figure 3). The dust port has a 4" diameter. Make sure the dust collection system has sufficient capacity and suction for your saw. Always turn on the dust collection system before starting the saw.

Controls

- A. **Power Indicator:** Lights up when saw has power.
- B. **Emergency Stop:** Stops all electrical functions of machine, but the saw still has power. To reset rotate switch clockwise until the button pops out.
- C. **Power On:** Starts the saw blade. Will not work when "Emergency Stop" is engaged, or saw's safety guard has been activated.
- D. Air Cylinder On/Off: Turns power to the air cylinder "ON" or "OFF".
- E. **Safety Guard Reset:** Resets the saw's safety guard, or the Emergency Stop (F) after it has been pressed. Air power will not work until the button has been reset.

- F. **Emergency Stop:** Stops all air functions of machine, but the saw still has air. Air powered devices will not work until the "Safety Guard Reset" button has been pressed.
- G. Foot Pedal: Activates the clamping saw guard and raises the saw blade into the workpiece. Will not work if the safety guard has been activated, air "Emergency Stop" has been pressed or air cylinder is in the "OFF" position. Press the "Safety Guard Reset" button to reset.

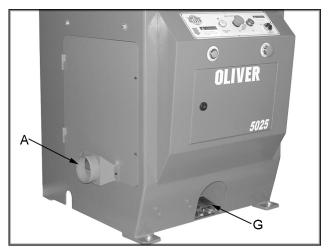


Figure 3



Figure 4

Installing and Changing the Blade

- 1. Disconnect machine from power source!
- Open the saw blade access door (A, Figure 5) by unscrewing the socket head cap screws.
- 3. Remove the clear panel guarding the blade (B, Figure 5) by loosening the four socket head cap screws (C, Figure 5) and lifting up on the panel.
- Rotate the arbor and push in the handle (D, Figure 6) until it engages a detent in the shaft.
- 5. Loosen the arbor bolt (E, Figure 7) on the arbor, (counterclockwise to loosen on the LH model; clockwise on RH model). Remove arbor bolt and outer flange (F, Figure 7) from the arbor. Note: The breaker bar and socket found in the toolbox should be used for the arbor bolt.
- 6. Mount the blade on the arbor as shown, making sure the teeth are pointed in the proper direction – the teeth at top of blade should point toward rear of machine.
- 7. Re-install outer flange and arbor bolt. Tighten securely while locking the arbor.
- 8. Re-install clear panel and close blade access door, fastening it securely. **Note:** A limit switch on the door will automatically shut down the saw if the door is opened while the blade is moving.

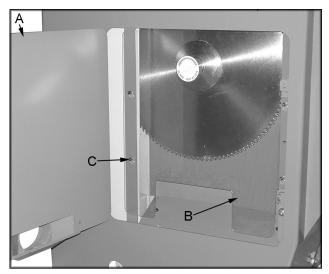


Figure 5

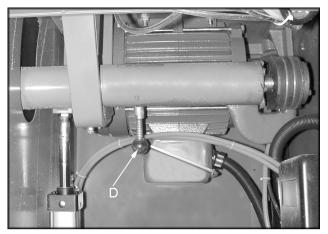


Figure 6

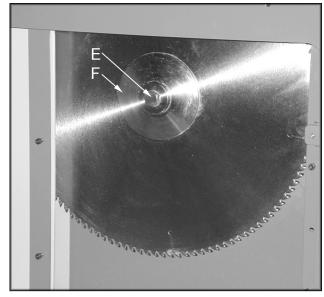


Figure 7

Squaring the Fence

The best way to square the fence is to make test cuts. Using a square, check the end of a board after it has been chopped. If the cut is not square, proceed as follows:

- 1. Loosen one of the bolts on the fence and lightly tap the fence with a block or mallet.
- 2. Retighten the bolt, and make another cut.
- 3. Repeat as necessary until fence is square.

Installing Infeed and Outfeed Rollers

(optional accessory)

The infeed and outfeed roller tables are optional accessories available through your Oliver Distrtibutor. In this setup the roller table with square head bolts in the rail will be used for the outfeed table. The square head bolts will accommodate the rail and stops. There are two measuring tapes for the roller tables. Which one used will depend on the direction the stock will be fed.

- 1. Mount an angle bracket (A, Figure 8) to the outfeed side of the saw using two hex cap bolts and two flat washers. Repeat for the infeed side.
- Place the outfeed roller table (C, Figure 9) upside down on a flat surface and attach the leg assembly (D, Figure 9) with four hex cap bolts, four flat washers, and four hex nuts (E, Figure 9). Repeat for infeed side.
- 3. Screw an adjustable foot (F, Figure 9) into each leg. Repeat for opposite side.
- 4. Flip the roller table right side up and mount it to the angle bracket on the cabinet. Use two hex cap bolts, two flat washers and two hex nuts (G, Figure 10). Do not fully tighten at this point. Repeat for opposite side.

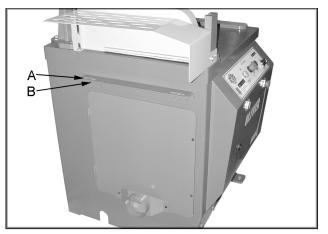


Figure 8

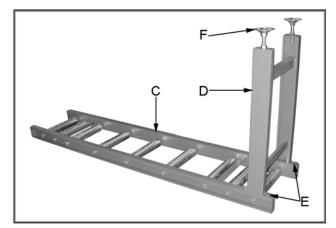


Figure 9

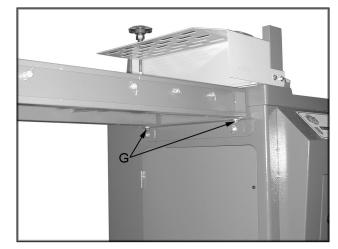


Figure 10

- 5. Line up the t-slot in rail with the square head bolts (A, Figure 11) in the roller table and slide the rail (B, Figure 11) into position.
- 6. Line up the square nuts on the stop handles (C, Figure 11) with the t-slot and slide the stops into position.

Leveling and Aligning Roller Tables

Each roller table must now be leveled with the main saw table. The fence must be square with blade, see "Squaring the Fence", page 10.

1. Disconnect saw from power source.

- 2. Select a piece of good quality wood with a good straight edge, 4 to 6 feet in length. If needed run it though a jointer first.
- 3. Place the board (D, Figure 12) on the saw table surface and allow it to extend to the second or third roller of the roller table.
- 4. Level the roller table by raising/lowering the mounting bracket (E, Figure 12), or by raising/lowering adjustable foot pad.
- 5. Figure 12 shows the straight edge on the back side of the roller table. Move the straight edge to the front side of the rollers and repeat the leveling process. When roller table and main table are level, securely tighten the nuts on the foot pads and the bolts in the bracket.
- 6. Now attach the cutoff saw to air and raise the blade guard (F, Figure 13) completely by turning the knob (G, Figure 12).
- 7. Place the board (H, Figure 13) on the saw table surface and allow it to extend to the third or fourth roller of the roller table.
- 8. Level the roller table by raising/lowering the mounting bracket (I, Figure 13), or by raising/lowering adjustable foot pad.
- 9. Figure 13 shows the straight edge on the back side of the roller table. Move the straight edge to the front side of the rollers and repeat the leveling process. When roller table and main table are level, securely tighten the nuts on the foot pads and the bolts in the bracket.

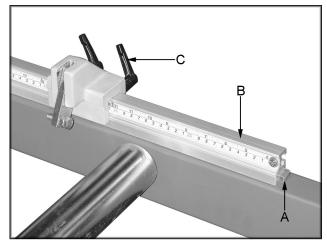


Figure 11

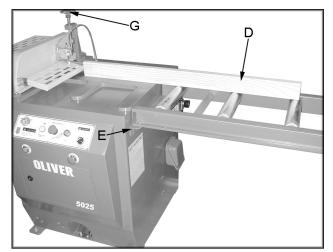


Figure 12

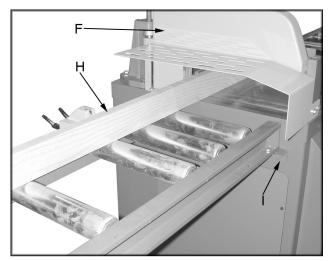


Figure 13

- 10. Now place the board (A, Figure 14) flat on the table and flush against the saw fence (B, Figure 14) and the stops (C, Figure 14) in the retracted position. If necessary, shift the roller table horizontally to bring it in line with the fence.
- 11. When final adjustments have been made and re-checked on the roller tables, tighten all hardware.

Setting Stops

- 1. Set the edge of the stop so that it reads 12" (D, Figure 15).
- Feed a piece of scrap wood through the saw until it rests against the stop bolt (E, Figure 15). Note: Make sure the workpiece is against the saw fence.
- 3. Adjust the blade cover so that it is above the workpiece by approximately 1/8".
- 4. Cut the scrap wood and measure the length of wood that was cut off.
- 5. Place a ruler (F, Figure 16) against the edge of the stop. Mark the current 12" location on the roller table and rail with a pencil, as shown in Figure 16.
- 6. Take the difference between 12" the stop is set at, and the length of scrap wood that was cut. Now shift the rail the determined amount in the correct direction.
- 7. Cut another piece of wood and make any needed adjustments. Once this is complete the measurement read at the stop's edge should result in the workpiece being cut to this length.

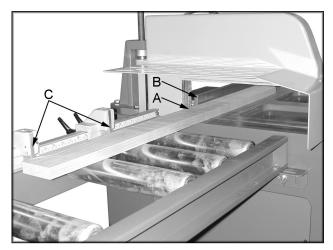


Figure 14

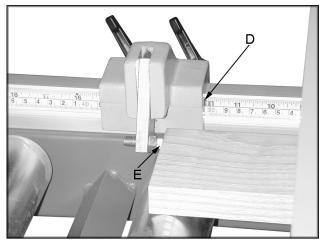


Figure 15

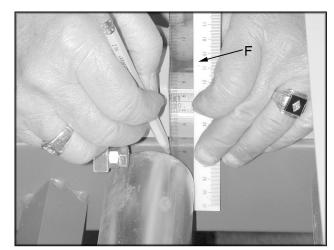


Figure 16

Blade Travel

To adjust the travel speed of the saw blade and the clamp:

- 1. Disconnect the saw from the power source.
- Open the cabinet door, and turn top valve (A, Figure 17) to adjust the speed of the blade's down stroke and the speed of the clamp as it rises back up.
- 3. Turn the knob counterclockwise to increase the speed, clockwise to decrease. When the speed is satisfactory, lock the setting by tightening the knurled nut (B, Figure 17).
- 4. Repeat for the lower valve (C, Figure 17), which adjusts the speed of the blade's upstroke and the lowering of the clamp.

Note: It may take a little time and experimentation before you figure out what combination of blade, air pressure, and cylinder adjustments give the fastest results without sacrificing a quality cut.

Clamp Height Adjustment

To adjust the distance between the blade guard clamp and the workpiece:

- 1. Turn handwheel (D, Figure. 18) to adjust the blade guard/workpiece clamp so that it is approximately 1/8" above the workpiece.
- 2. Move the hex nut (E, Figure 18) downward and tighten against the casting. This will prevent your setting from changing.

V-Belt Replacement and Adjustment

- 1. Disconnect the saw from the power and air source.
- 2. Loosen the four motor mount bolts (F, Figure. 19) found on the table top.
- 3. Move the motor forward to release the belt tension. Remove and replace the v-belts.
- 4. Tension the belts by sliding the motor towards the rear of the saw.
- 5. Tighten motor mount bolts and check pulley alignment. If necessary loosen bolts and adjust motor for proper pulley alignment.



Figure 17

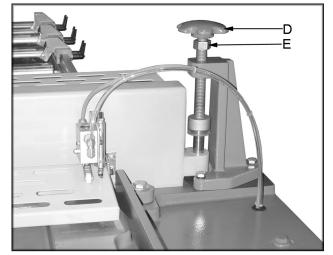


Figure 18

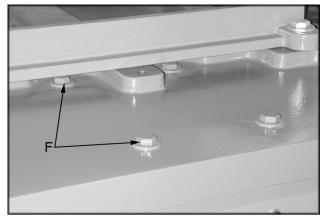


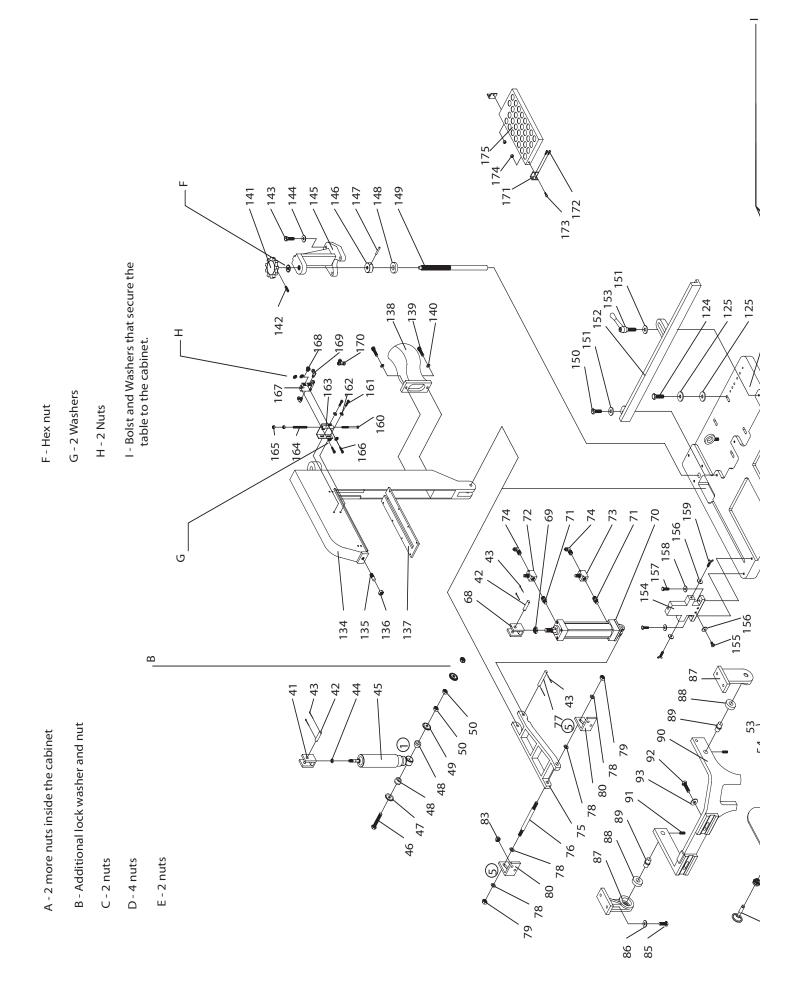
Figure 19

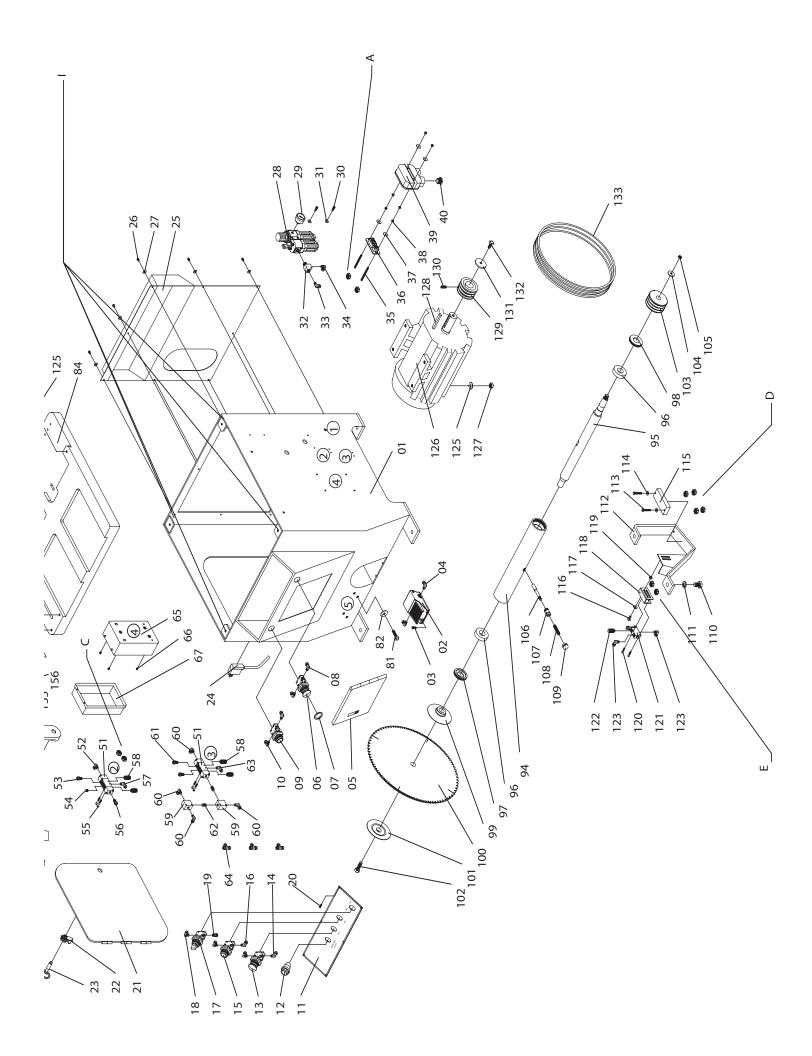
Maintenance

	Maintenance	Daily	Weekly	Monthly
1.	Keep the inside and outside of the machine free of sawdust.	х		
2.	Check and replace or sharpen dull or damaged saw blades.	x		
3.	Lube grease fitting on arbor housing.			x
4.	Check lubricant level in pneumatic oiler assembly – if low, fill with a multipurpose air tool oil (such as Mobil Almo 525)		х	
5.	Check and replace or tension v-belts.			x
6.	Remove condensation from the moisture collector found on the pneumatic inlet.	х		

Troubleshooting

Description of Symptoms	Possible Cause	Corrective Action
Machine will not turn on, no lights	1. No power	1. Check power cable and power source
Machine will not run, power indicator light on	 Guard limit switch tripped Emergency switch activated 	 Press the guard reset button Press the guard reset button or rotate the emergency switch to disengage
Machine stops when cutting	 Incorrect blade travel speed Incorrect air pressure Drive belt slippage Dull or damaged blade 	 Reduce blade travel speed Set air pressure to approximately 70 psi Tighten drive belt tension Sharpen or replace blade
Foot pedal does not work	 Emergency switch activated Guard limit switch tripped Incorrect air pressure 	 Press the guard reset button Press the guard reset button Set air pressure to approximately 70 psi





NO	Parts NO.	Description	QTY	Specification
1	QM010001	Body	1	Specification
2	QM010001	Pedal Switch	1	230-8A-537662
3	HA020407	Socket Head Cap Screw	2	M6x15L
4	QM010003	Elbow	2	1/8"x6mm
5	QM010004	Body Front Door	1	
6	QM010004 QM010005	Emergency Switch	1	
7	QM010005 QM010006	Emergency Switch Plate	1	
8	QM010003	Elbow	2	1/8"x6mm
9	QM010007	Air Pressure Start Switch	1	
10	QM010007 QM010003	Elbow	2	1/8"x6mm
10	QM010008	Switch Plate	1	
11	QM010009	Power indicator	1	
12	QM010009	Power "OFF" Switch	1	VM103 1/8"
	·		2	
14	QM010003	Elbow	1	1/8"x6mm
15	QM010010	Power "ON" Switch	2	1/0"
16	QM010003	Elbow		1/8"x6mm
17	QM010012	On/Off Air Control Switch	1	VM104
18	QM010003	Elbow	1	1/8"x6mm
19	QM010013	Adaptor	1	1/8"x6mm
20	QM010014	Round Head Phillip Screw	6	M5x10L
21	QM010015	Side Door	1	C-408F
22	QM010016	Door Lock	1	C-408F
23	QM010017	Door Key	1	
24	QM010018	Limited Switch	1	
25	QM010019	Body Rear Cover	1	
26	HA040604	Round Head Phillip Screw	8	M5x10L
27	HE011300	Washer	8	5.2x12x1t
28	QM010020	Air Fielt (Oil Type)	1	597462 MACP300-10A
29	QM010021	Pressure Gauge	1	
30	HA020322	Socket Head Cap Screw	2	M5x40L
31	HE011300	Flat Washer	2	5.2x12x1t
32	QM010022	Adaptor Square	1	3/8"x3/8"x3/8"
33	QM010023	Elbow	1	3/8"x3/8"
34	QM010024	Elbow	1	3/8"x6mm
35	QM010025	Bolt Shaft	2	M5x65L
36	QM010026	Connection Board	1	
37	HE011300	Washer	4	5.2x12x1t
38	HC010400	Hexagin Nut	6	M5x0.8P
39	QM010027	Connection Box	1	
40	QM010028	Strain Relief	1	
41	QM010029	Cusion Bevel pivot	1	
42	QM010030	Swivel Shaft	2	
43	Н	Roller Pins	6	1-1/4"x1/8
44	HC010900	Hexagin Nut	1	M10x1.5P
45	QM010031	Shock Absorber	1	Tokico3243
46	Ha010740	Hexagin Head Bolt	1	M12x75L

5025 Parts List

47	QM010032	Ring (Upper)	1	
48	QM010033	Sleeve	2	
49	QM010034	Ring (Lower)	1	
50	HC011200	Hexagin Nut	2	M12x1.75P
51	QM010035	Valve	2	MVAA-220-4A-2
52	QM010003	Elbow	1	1/8"x6mm
53	QM010036	Adaptor	1	1/4"x6mm
54	H	Set Screw	1	1/4"
55	HA040619	Round Head Phillip Screw	4	M5x35L
56	QM010013	Adaptor	1	1/8"x6mm
57	QM010037	Elbow	1	1/4"x6mm
58	QM010038	Mufflar	2	1/4"
59	QM010039	Valve	2	KC-7810
60	QM010003	Elbow	4	1/8"x6mm
61	QM010040	Reducer	2	1/4"x3/8"
62	QM010041	Connect	2	1/8"x1/8"
63	QM010042	Elbow	1	1/4"x3/8"
64	QM010043	Triple	3	6x6x6(mm)
65	QM010044	Switch Control Box	1	MS-P35
66	HA040602	Round Head Phillip Screw	4	M5x6L
67	QM010045	Switch Control Box Cover	1	MS-P35
68	QM010046	Cylinder Bevel Pivot Support	1	
69	HC011500	Hexagin Nut	1	M16x1.5P
70	QM010047	Cylinder	1	
71	QM010048	Reducer	2	1/4"x3/8"
72	QM010049	In Air Pressure Meter Valve	1	3/8"
73	QM010050	Out Air Pressure Meter Valve	1	3/8"
74	QM010024	Elbow	2	3/8"x6mm
75	QM010051	Cylinder Bevel Bracket	1	
76	QM010052	Bevel Pin	1	
77	QM010053	Cylinder Bevel Shaft	1	
78	HE019700	Flat Washer	4	10.5x28x3t
79	HC010900	Hexagin Nut	2	M10x1.5P
80	QM010054	Cylinder Support Backet	2	
81	HA010613	Hexagin Head Bolt	4	M10x25L
82	HE019700	Flat Washer	4	10.5x28x3t
83	HC011000	Hexagin Nut	4	M10x1.5P
84	QM010055	Table	1	
85	HA020619	Socket Head Cap Screw	4	M10x35L
86		Spring Washer	4	10.5x2t
87	QM010056	Suspensin Bracket	2	
88	HJ023600	Ball Bearing	2	#6204ZZ
89	QM010057	Suspension Spindle	2	
90	QM010058	Main Spindle Suspension	1	
91	QM010059	Suspension Adjust Bolt	2	M6x15L
92	HA010725	Hexagin Head Bolt	2	M12x45L
93		Flat Washer	2	13.4x34x3t
94	QM010060	Main Shaft Housing	1	

95	QM010061	Main Shaft	1	
96	HJ032400	Ball Bearing	2	#6206Z
97	QM010062	Spacer L.H.	1	
98	QM010063	Spacer R.H.	1	
99	QM010064	Inside Flange	1	
100	QM010065	Saw Blade	1	18"x25.4mmx120T
101	QM010066	Outside Flange	1	
102	HA010713	Hexagin Head Bolt	1	M12x25L
103	QM010067	Spindle Pulley	1	
104		Spring Washer	1	5/8"x3t
105	HC011200	Hexagin Nut	1	M12x1.75P
106	QM010068	Lock Pin	1	
107	QM010069	Lock Pin Guide	1	
108	QM010070	Spring	1	
109	QM010071	Lock Pin Knob	1	30x3/8"
110		Hexagin Head Bolt	2	1/2"x40L
111		Flat Washer	2	5/8"x34x3t
112	QM010072	Main Spindle Low Bracket	1	
113	HA010422	Hexagin Head Bolt	2	M6x40L
114		Spring Washer	2	12.5x3t
115	QM010073	Low Bracket Fix Plate	1	
116	HA020407	Socket Head Cap Screw	2	M6x15L
117	HE018100	Flat Washer	2	6.3x16x2
118	QM010074	Limited Switch Seat	1	
119	HC010600	Hexagin Nut	4	M6x1.0P
120	QM010075	Phillip Screw	2	M5x15L
121	QM010076	Limited Switch	1	
122	QM010077	Mufflar	1	1/8"
123	QM010003	Elbow	2	1/8"x6mm
124	HA010638	Hexagin Head Bolt	4	M10x60L
125	HE019600	Flat Washer	12	10.5x28x3t
126	QM010078	Motor	1	7.5HP(1P)
127	HC011000	Hexagin Nut	4	M10x1.5P
128	QM010079	Motor Spindle Keyway	1	10x8x75L
129	QM010080	Motor Pulley	1	
130		Set Screw	1	M6x1.0P
131		Flat Washer	1	10.5x54x3t
132	QM010081	Hex Head Bolt	1	M10x25L
133	QM010082	V-Belt	3	MF1310, 3L310
134	QM010083	Bow Arm	1	
135	QM010084	Fixed Pin	1	
136		Hexagon Nut	1	3/4"x10NC
137	QM010085	Rubber Sponge	1	
138	QM010086	Exhaust Hood	1	
139	HA020513	Socket Head Cap Screw	2	M8x25L
140	HE021100	Spring Washer	2	8.3x2t
141	QM010087	Bow Adjust Knob	1	
142	HA030408	Set Screw	1	M6x15L

143	HA010622	Hexagon Bolt	3	M10x40L
144	HE021300	Spring Washer	3	10.5x2t
145	QM010088	Bow Support Seat	1	
146	QM010089	Nylon Cusion	1	
147	HG010819	Bow Support Seat Ring Pin	1	3mmx35L
148	QM010090	Bow Support Seat Ring	1	
149	QM010091	Guide Thread	1	
150	HA010722	Hexagon Bolt	1	M12x40L
151		Spring Washer	2	1/2"x2t
152	QM010092	Fence	1	
153	QM010093	Fence Locking Handle	1	
154	QM010094	Guard Guide	1	
155	HA010510	Hexagon Bolt	2	M8x20L
156	HE018400	Flat Washer	4	8.2x24.5x3t
157	HA010516	Hexagon Bolt	2	M8x30L
158	HE21100	Spring Washer	2	8.3x2t
159	HA060710	Wing Bolt	2	M8x20L
160	HA020567	Socket Head Cap Screw	1	M8x95L
161	HA020407	Socket Head Cap Screw	2	M6x15L
162	HE018100	Flat Washer	4	6.3x1t
163	QM010095	Spring Housing	1	
164	QM010096	Limit Spring	1	
165	HC010800	Hexagon Nut	2	M8x1.25P
166	HA020304	Socket Head Cap Screw	2	M5x10L
167	QM010097	Limited Switch	1	
168	QM010098	Mufflar	1	1/4"
169	QM010099	Elbow	2	1/4"x6mm
170	QM010100	Triple	1	6x6x6(mm)
171	QM010101	Safety Guard Seat	2	
172	HA020407	Socket Head Cap Screw	4	M6x15L
173	HA020304	Socket Head Cap Screw	2	M5x10L
174	HC010400	Hexagon Nut	2	M5x0.8P
175	QM010102	Safety Guard	1	
176	QM010103	Safety Guard	1	Option
177	QM010104	Safety Guard	1	Option
178	QM010105	Safety Guard	1	Option
179	QM010106	Rail	1	Option 2400mm
180	QM010107	Rule	1	Option
181	QM010108	Indicator Body	3	Option
182	QM010109	Square HD Bolt	6	Option
183	QM010110	Lock Handle	6	Option
184	QM010111	Guide Stop	3	Option
185	QM010112	Spring Pin	3	Option
186	QM010113	Square HD Bolt	6	Option
187	QM010114	Hexagon Bolt	3	Option
188	HC010800	Hexagon Nut	6	Option M8x1.25P
189	QM010115	Feeder Rack	2	Option 4 Feet
190	QM010116	Roller	10	Option

191	QM010117	Roller Shaft	10	Option
192		Cotter Pins	20	Option 1-1/4"x1/8
193	QM010118	L Upper Brace	2	Option
194	HA010510	Hexagon Bolt	4	Option M8x20L
195	HE018400	Flat Washer	12	Option 8.2x24.5x3t
196	QM010119	Leg Brace	2	Option
197	HA010513	Hexagon Bolt	8	Option M8x25L
198	HC010800	Hexagon Nut	8	Option M8x1.25P
199		Hexagon Nut	4	Option 5/8"
200	QM010120	Rootstock	4	Option 5/8"