



# **4045 12" Professional Tablesaw**

## **Owner's Manual**



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[www.olivermachinery.net](http://www.olivermachinery.net)

## **Warranty**

Thank you for your purchase of a genuine Oliver woodworking machine. Oliver Machinery has made every attempt to provide a machine that is safe and durable.

All Oliver products are guaranteed, to the ORIGINAL RETAIL CUSTOMER, to be free from defects for TWO YEARS FROM THE DATE OF PURCHASE. Oliver Machinery will repair or replace, at its option, any component that fails under normal use. Please note that the customer is responsible for returning the failed component to Oliver Machinery prepaid for inspection.

This warranty does not cover damages caused by misuse, accident, unauthorized repair, alteration or improper maintenance.

## **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-to-date product information, check with your local Oliver Machinery distributor, or visit [www.olivermachinery.net](http://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.**
  - **Use blade guard for every applicable operation including all through cuts. If guard is removed for special non-through cuts such as dado and rabbet cuts, replace before further use of the saw.**
  - **Keep hands out of line with the saw blade.**
  - **Use a push stick.**
  - **Do not perform any operation freehand.**
  - **Never reach around or over the saw blade.**
1. **If you are not properly trained** in the use of a tablesaw do not use until the proper training has been obtained.
  2. **Read, understand and follow** the safety instructions found in this manual. Know the limitations and hazards associated with this machine.
  3. **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.
  4. **Eye safety:** Wear an approved safety shield, goggles, or glasses to protect eyes. Common eyeglasses are only impact-resistant, they are not safety glasses.
  5. **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.
  6. **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.
  7. **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 use the machine. 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.
  8. **Material condition:** Do not attempt to saw boards with loose knots or with nails or other foreign material. Do not attempt to saw twisted, warped, bowed stock.
  9. **Operator position:** Maintain a balanced stance and keep your body under control at all times.
  10. **Before starting:** Before turning on machine, remove all extra equipment such as keys, wrenches, scraps, and cleaning rags away from the machine.

11. **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.
12. **Disconnect all power sources:** Before performing any service, maintenance, adjustments or when changing blades. A machine under repair should be RED TAGGED to show it should not be used until the maintenance is complete.
13. **Job completion:** If the operator leaves the machine area for any reason, the tablesaw should be turned “off” and the blade should come to a complete stop before their departure. The key should be placed in the “off” position, removed and given to a supervisor to prevent any unauthorized use of the tablesaw.
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 tablesaw 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. **Drugs, alcohol and medication:** Do not operate this machine while under the influence of drugs, alcohol, or any medication.
17. **This machine is designed** for cutting wood products only. Do not use to cut any kind of metal or substance other than wood.
18. **Never start the saw** while a work piece is in contact with the blade.
19. **Raise or lower the blade** only when the machine has been turned “off” and the blade has come to a complete stop.
20. **Miter Gauge and Rip Fence:** Never use the miter gauge and rip fence at the same time.
21. **Damaged Saw Blade:** Never use a damaged saw blade or one that has been dropped. Check the saw blade for cracks or missing teeth. Do not use a cracked or dull blade or one with missing teeth. Make sure the blade is securely locked on the arbor.
22. **Make sure** the blade is running in the proper direction. Refer to the arrow on the blade. The teeth should be pointing down when viewing from the front of the saw.
23. **Alignment:** Check the alignment of the splitter to the blade. Also, check the alignment of the fence to the miter slot.
24. **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

Model Number.....	4045
Blade Diameter (In) .....	12
Arbor Diameter (In) .....	5/8" OR 1"
Maximum Depth of Cut at 90 Degrees (In) .....	4"
Maximum Depth of Cut at 45 Degrees (In) .....	2-2/3"
Maximum Cut to the Right of Blade .....	36"
Maximum Cut to the Left of Blade.....	12"
Dust Port Diameter (In) .....	4
Table Dimensions w/Extensions (LxW) .....	30-3/4" x 48-1/2"
Table Height (In) .....	36"
Blade Tilt .....	Left
Arbor Speed RPM .....	3,450
Gross Weight .....	803

## Oliver 4045, 12" Tablesaw

### Contents of the Shipping Containers

#### Saw

Once the top is removed the saw will be as shown with the left extension wing already attached. Inspect for freight damage and call the freight carrier if any.



Saw

#### Contents

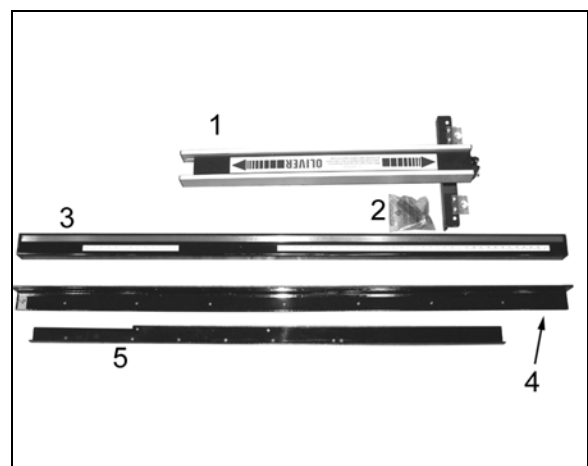
1. Blade guard
3. Arbor wrenches
4. Wheel handle
5. Accessory holders
6. Tools
7. Hardware packet, 5/8 & 1" arbor
8. Extension wing hardware
9. Miter gage
10. Extension wing



Contents

#### Fence and Rail Assembly

1. Fence
2. Lock handle
3. Front guide
4. Front guide support bracket
5. Rear guide



Fence and Rail Assembly

## Machine Preparation and Setup

### **WARNING!**

**The equipment used to lift this machine must have a rated capacity at, or above the weight of the tablesaw. Failure to comply may cause serious injury!**

The tablesaw must be positioned on a smooth, level surface. The area must be well lit and have plenty of room to maneuver with large pieces of wood.

Level the saw front to back and side to side using a level placed on the table. Use shims under the corners, if necessary, but make sure the saw is stable before being placed into service.

Clean all rust protected surfaces with a 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.

Pay particular attention to cleaning in the miter slot and the faces of table and extension wing.

### **Extension Wing Assembly**

1. Attach extension wing (A, Figure 1) to table with four hex head bolts, and four lock washers (B, Figure 1). Snug but do not tighten. **Note:** Start with one of the center holes (C, Figure 1) to hold the wing in place.
2. Slide extension wing toward the front edge of the saw table until two edges are flush.
3. Using a straight edge (D, Figure. 2), align extension wing to saw table and tighten hex cap bolts. Repeat for opposite wing.

### **Handwheel Assembly**

1. Place handwheel (F, Figure 3) onto the saw shaft. Use an allen key to lock the wheel onto the shaft with the set screw (G, Figure 3). Insert and screw the locking handle (H, Figure 3) and the wheel handle (I, Figure 3) into their respective holes. Repeat for other.

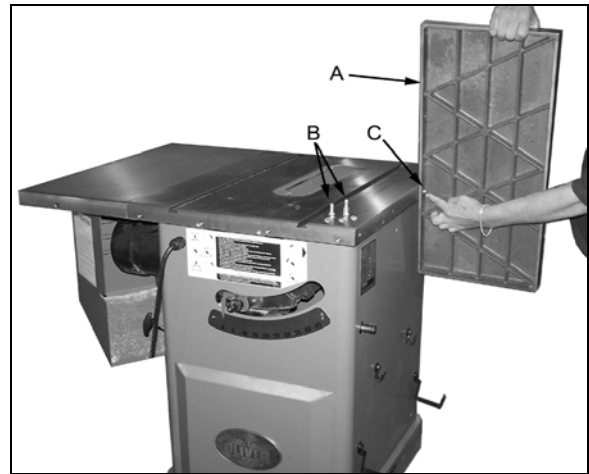


Figure 1

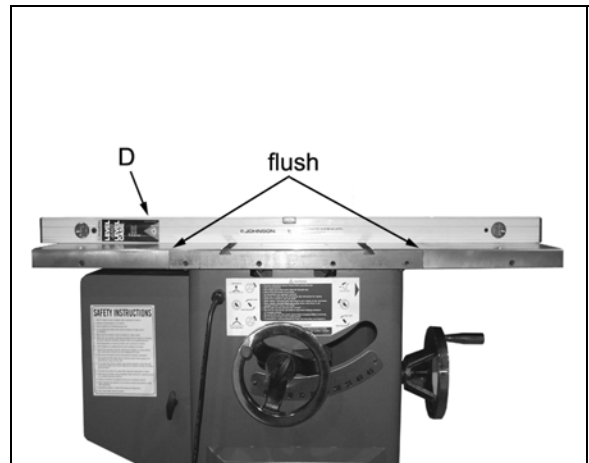


Figure 2

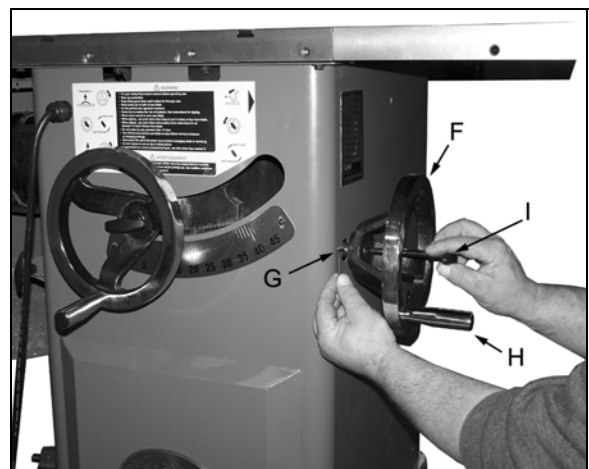


Figure 3

## Rail Assembly

1. Rest the front guide support bracket on the switch box as shown in Figure 4 and secure into place using the chamfered bolts, nuts and washers provided in hardware packet 7. Note that the two outside holes require a nut and washer as well as a bolt while the four inside holes require the bolts only.

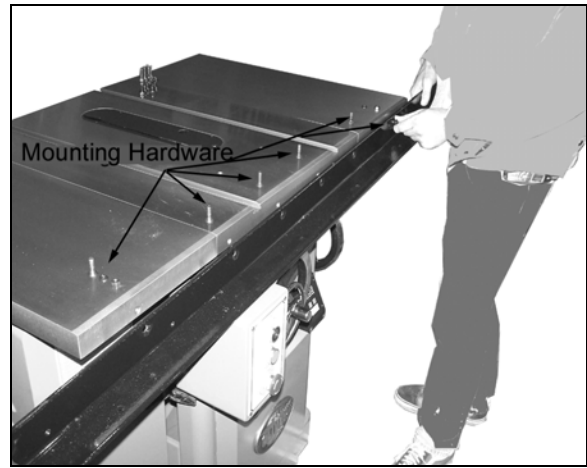


Figure 4

2. Set the front guide on the support bracket as shown in Figure 5 and secure into place with the short bolts provided in hardware packet 7.

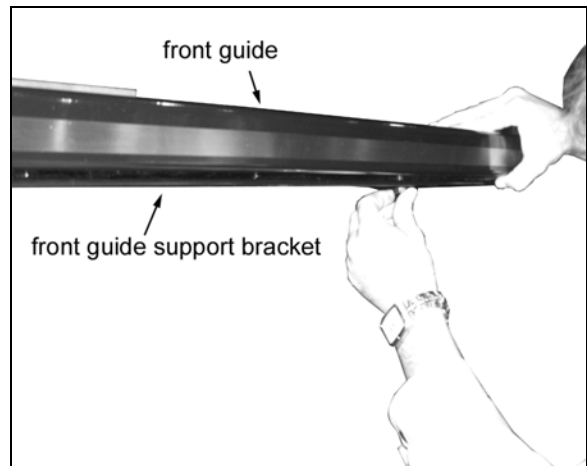


Figure 5

3. Install the rear guide as shown in Figure 6 using the supplied hardware. Note that the two outside holes require a nut and washer as well as a bolt while the four inside holes require the bolts and washers only.



Figure 6



## Fence Assembly and Adjustment

1. Place the fence on the guides as shown in Figure 7. Look for the rubber nib on the underside of the fence as shown and make sure it lines up with the back support rail.
2. Align the fence with the miter gauge slot as shown in Figure 7 and check to see if the fence is parallel to the slot.
3. If the fence is not parallel to the miter gauge slot, lift the fence off the guides and place it on the table as shown in Figure 8. Turn the appropriate screw, A to compensate for the difference. Place the fence back on the guides and check again for alignment to the miter gauge. If it is still mis-aligned, repeat the procedure.

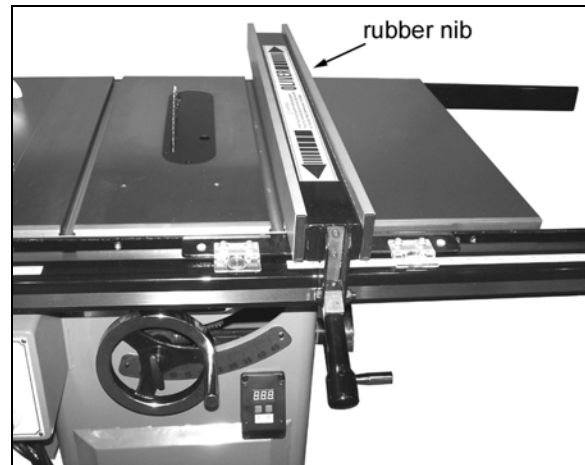


Figure 7

## Adjusting the Scale Reader

1. Raise the blade to its maximum height.
2. Place the fence on the guides on the right side of blade and then slide the fence toward the blade. Continue until the fence just touches the saw teeth. Do not push too hard or the blade will deflect.
3. Looking at the right side scale reader, the red pointer should match up with the zero mark. If not, loosen the two screws, A, Figure 9 and slide the viewer to align the mark with zero. Tighten the screws.
4. Move the fence to the left side of the blade and repeat the procedure for the left side viewer.

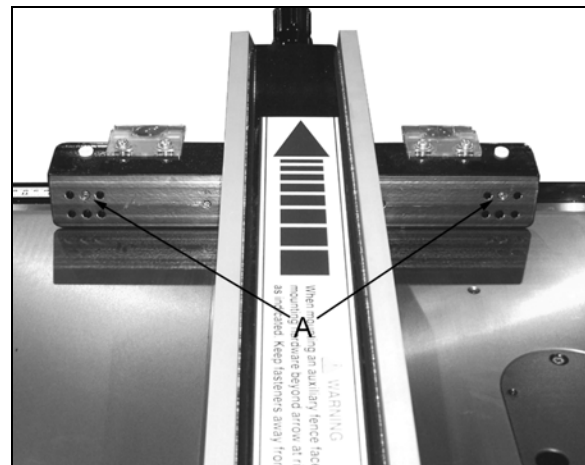


Figure 8

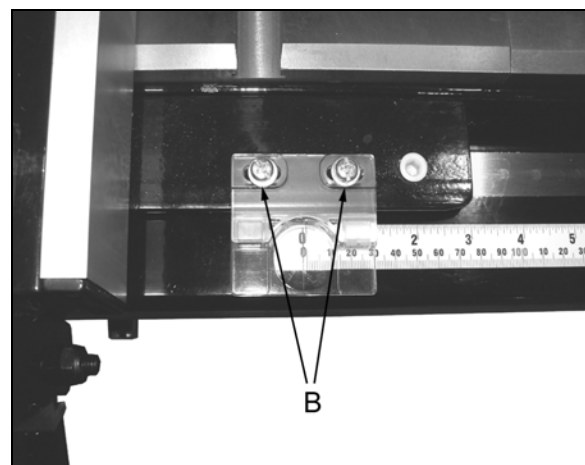


Figure 9

## Calibrating the Digital Angle Readout

1. Place a square on the table as shown in Figure 11 then turn the saw tilt wheel until the blade comes to 90 degree.
2. Push and hold the 0° set button as shown in Figure 14 until the display stops blinking. The 0° is now set.
3. Tilt the blade to 45 degrees as shown in Figure 12. Push and hold the 45° set button as shown in Figure 15 until the display stops blinking. At this point the angle display is calibrated.

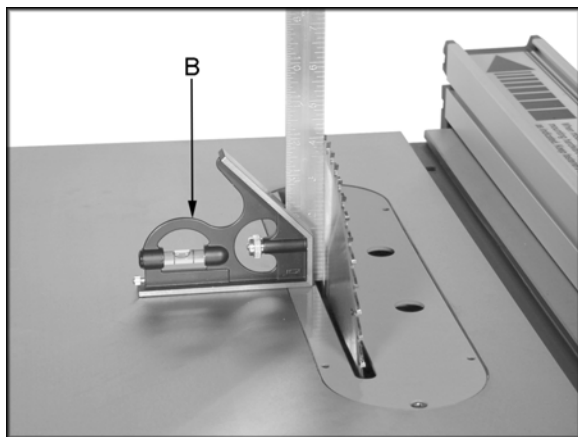


Figure 11

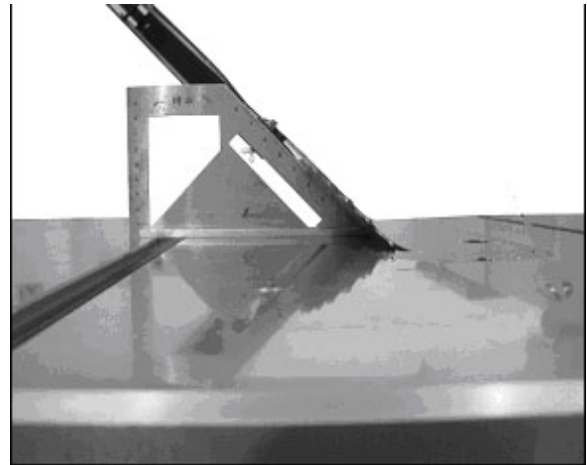


Figure 12



Figure 14



Figure 15

## Leveling Table Insert

Adjust the table insert flush with the table by turning the four leveling screws (C, Figure 16). Place a straight edge across the table and insert. Raise the insert until it just touches the straight edge. Check both the front and rear section of the insert.

## Splitter and Blade Guard Assembly

The table saw comes equipped with both a riving knife and blade guard (see Figure 17). It is always recommended to use the blade guard whenever possible. However, when doing narrow cuts when the guard would interfere with the fence or any other cuts in which the blade guard would pose a problem, replace the guard with the riving knife. Installation is the same for both. For ease of installation, the blade guard can be disassembled by loosening the lock knob and separating the splitter from the guard as shown in Figure 18. It may be necessary to loosen the two screws as indicated in the picture.

1. **Disconnect saw from power source.**
2. Remove table insert by loosening the screw at the front of insert.
3. Loosen the lock nut then insert the fork of the riving knife between the nut head and backing plate as shown in Figure 19. Lock into place.
4. Re-install the table insert.

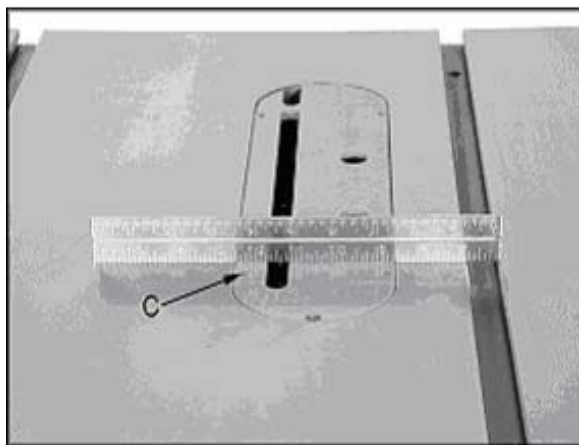


Figure 16

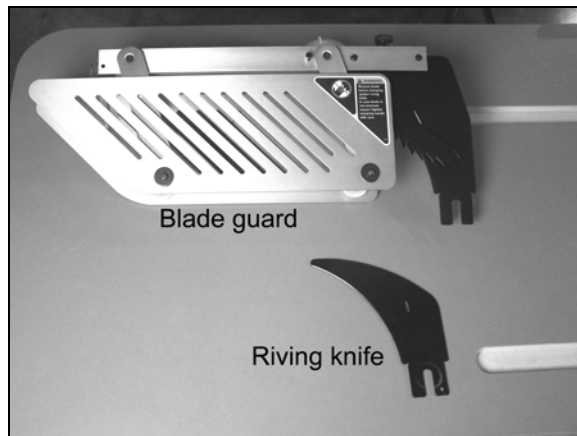


Figure 17



Figure 18

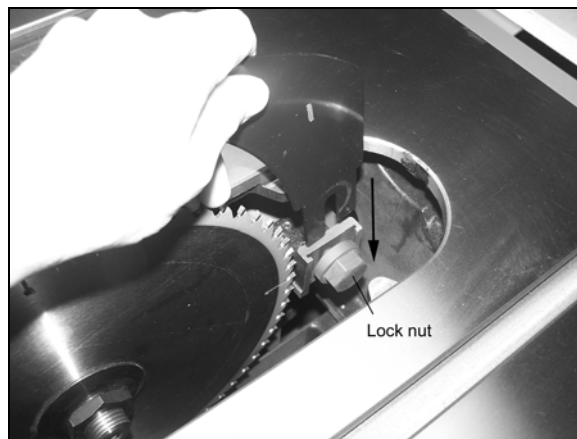


Figure 19

## Miter Gauge

1. Slide the miter gauge bar into the miter gauge slot in table. Loosen the handle (A, Figure 23) and pull out indexing rod (B, Figure 23) to pivot the miter gauge body.
2. Push the indexing rod in to engage the preset stops (C, Figure 23).
3. Adjust stops by loosening the hex nut (D, Figure 23) and adjusting screw (E, Figure 23).

**Note:** Always make test cuts. The scale is for reference. There are two holes in the miter gauge fence used to attach a wooden fence.

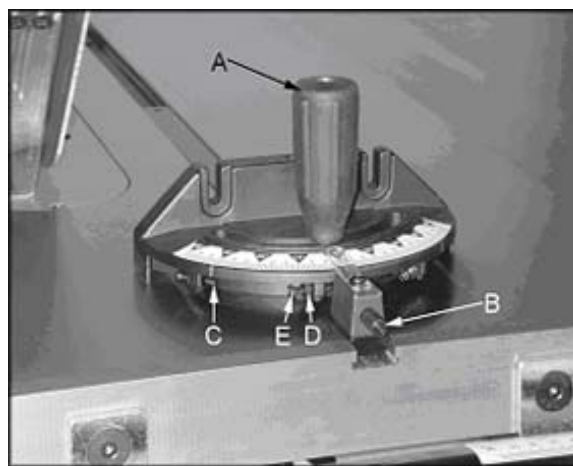


Figure 23

## Controls (see Figures 24 & 25)

- A. **Emergency Stop Button:** Stops all functions of machine.
- B. **Start:** Starts saw blade rotation. Will not work if the “Emergency Stop” switch is engaged, or the key is in the “OFF” position.
- C. **Handwheel Lock:** There is a handwheel lock on both handwheels. Loosen lock to turn handwheel and tighten when blade is in desired location.
- D. **Raising and Lowering Hand wheel:** Loosen hand wheel lock. Turn handle clockwise to raise the blade. The blade should be 1/8”-1/4” above the top of work piece, or 3-5 blade teeth above the top of work piece.
- E. **Tilting Hand wheel:** Loosen hand wheel lock. Turn handle counter-clockwise to tilt blade to the left.



Figure 24

## Dust Collection

There is a 4” dust port (G, Figure 25) located on the side of saw cabinet. Make sure dust collection system has sufficient capacity and suction for your tablesaw. Always turn on dust collection system before starting the tablesaw.

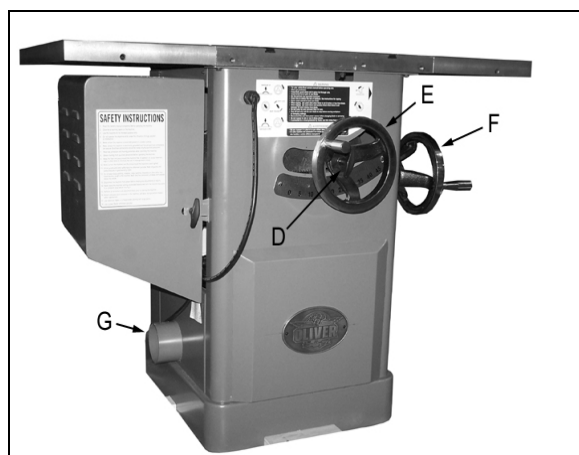


Figure 25

## 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 saw is available in both 1-Phase and 3-Phase versions.

- **Electrical Connections for a 3-Phase Unit**

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

With 3-Phase power verify the blade is turning in the proper direction. Turn the saw on and make sure the direction of the blade spins toward the user when standing in front of the saw. If it does not, disconnect the power source and reverse any two power leads.

- **Electrical Connections for a 1-Phase Unit**

This saw is 1-Phase, 220V only. 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.

## Replacing the Blade

The blade guard has been removed for photos, but it is possible to change the blade without removing the blade guard.

1. **Disconnect saw from power source.**
2. Remove the table insert and raise the blade completely.
3. Use the two provided arbor wrenches to loosen the arbor nut, as shown in Figure 25. Place one wrench on the arbor nut and one on the flats located on the arbor. Remove the nut, flange and blade.

4. Replace the blade followed by the flange and arbor nut. Tighten the arbor nut while holding the arbor in place.

**Note:** Make sure the blade and arbor are clean before installing a new blade. The blade teeth should point down when viewing from the front of saw.

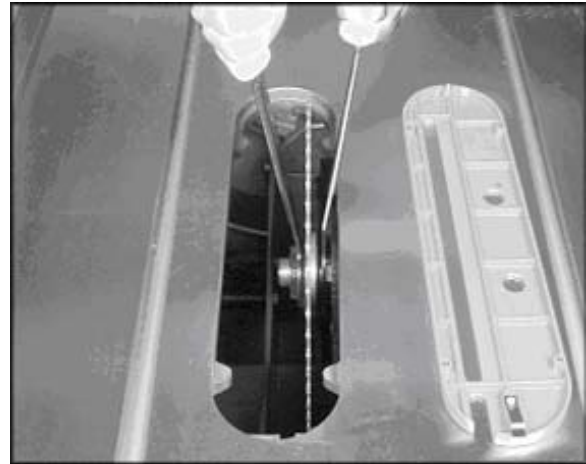


Figure 25

## Maintenance

### **WARNING!**

**Disconnect the machine from power source before proceeding with any maintenance, or troubleshooting! Failure to comply may cause serious injury!**

Periodically clean the inside of the machine for dust control. Use an air hose to blow out dust from motor fan and motor cover.

Use a wire brush to clean trunnions and worm gears. Apply white lithium grease or powdered graphite to lubricate worm gears, and trunnions.

Keep pulleys and belts free from dirt, dust, oil and grease.

Replace worn v-belts as needed.

Remove rust from the tabletop with WD-40 and a Scotch-Brite™ Hand Pad. Keep a light coat of WD-40 on the table top when not in use

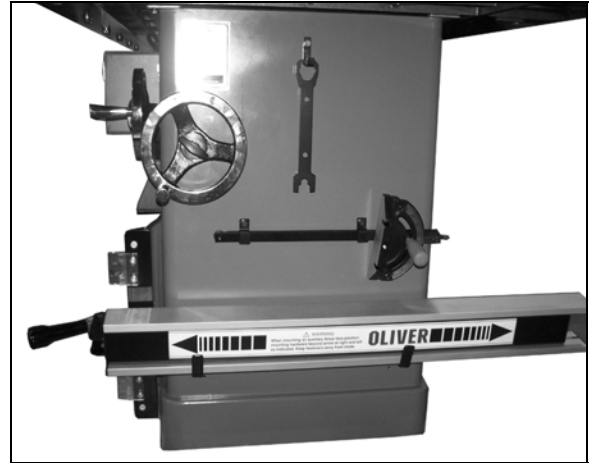


Figure 27

## Accessory Holders

See Figure 27 for the correct placement of the accessory holders.

## Troubleshooting

Description of Symptoms	Possible Cause	Corrective Action
Machine will not start	<ol style="list-style-type: none"> <li>1. Fuse blown or circuit breaker tripped</li> <li>2. Cord Damaged</li> <li>3. Faulty switch</li> <li>4. Not connected to power source</li> <li>5. Connected to wrong voltage</li> <li>6. Key in the "OFF" position</li> <li>7. Emergency stop button pressed</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace fuse or reset circuit breaker</li> <li>2. Have cord replaced</li> <li>3. Replace switch</li> <li>4. Check connection</li> <li>5. Check voltage</li> <li>6. Insert key and turn to "ON" position</li> <li>7. Rotate emergency stop button clockwise until it pops out</li> </ol>
Blade does not come up to speed	<ol style="list-style-type: none"> <li>1. Cable too light or too long</li> <li>2. Low current</li> <li>3. Motor not wired for correct voltage</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace with adequate size cable</li> <li>2. Contact local electric company</li> <li>3. Refer to motor nameplate for correct voltage</li> </ol>
Does not make accurate 45° or 90° cuts	<ol style="list-style-type: none"> <li>1. Stops not adjusted correctly</li> <li>2. Angle pointer not set accurately</li> <li>3. Miter gauge out of adjustment</li> </ol>	<ol style="list-style-type: none"> <li>1. Check blade with combination square and adjust stops</li> <li>2. Check blade with combination square and adjust pointer</li> <li>3. Adjust miter gauge</li> </ol>
Saw makes unsatisfactory cuts	<ol style="list-style-type: none"> <li>1. Dull blade</li> <li>2. Blade mounted backwards</li> <li>3. Gum or pitch on blade</li> <li>4. Incorrect blade for cut</li> </ol>	<ol style="list-style-type: none"> <li>1. Sharpen or replace blade</li> <li>2. Turn blade around</li> <li>3. Remove blade and clean</li> <li>4. Change blade to correct type</li> </ol>
Material binds blade when ripping	<ol style="list-style-type: none"> <li>1. Fence not aligned with blade</li> <li>2. Warped wood</li> <li>3. Excessive feed rate</li> <li>4. Splitter not aligned with blade</li> </ol>	<ol style="list-style-type: none"> <li>1. Check and adjust fence</li> <li>2. Select another piece of wood</li> <li>3. Reduce feed rate</li> <li>4. Align splitter with blade</li> </ol>

Saw vibrates excessively	<ol style="list-style-type: none"> <li>1. Stand on uneven floor</li> <li>2. Damaged saw blade</li> <li>3. Bad V-belts</li> <li>4. Bent pulley</li> <li>5. Improper motor mounting</li> <li>6. Loose hardware</li> </ol>	<ol style="list-style-type: none"> <li>1. Reposition on flat, level surface</li> <li>2. Replace saw blade</li> <li>3. Replace V-belts</li> <li>4. Replace pulley</li> <li>5. Check and adjust motor</li> <li>6. Tighten hardware</li> </ol>
Material kicked back from blade	<ol style="list-style-type: none"> <li>1. Rip fence out of alignment</li> <li>2. Splitter not aligned with blade</li> <li>3. Feeding stock without rip fence</li> <li>4. Splitter not in place</li> <li>5. Dull blade</li> <li>6. Letting go of material before it is past blade</li> <li>7. Anti-kick back paws dull</li> </ol>	<ol style="list-style-type: none"> <li>1. Align rip fence with miter slot</li> <li>2. Align splitter with blade</li> <li>3. Install and use rip fence</li> <li>4. Install and use splitter (with guard)</li> <li>5. Replace blade</li> <li>6. Push material all the way past blade before releasing work</li> <li>7. Replace or sharpen anti-kick back paws</li> </ol>
Blade does not raise or tilt freely	Sawdust and debris in raising and tilting mechanisms	Clean and regrease