## SAFETY OPERATING PROCEDURES, Origin Labs, Woodworking Lab

# **Sawstop Industrial Table Saw**

#### **METHOD OF OPERATION**

\*Material is passed through saw blade manually to make a cut.

#### **MACHINE HAZARDS**

- \*Amputation by Blade
  - -Controls: adjustable blade guard, blade safety shut off, push stick, proper stance, proper hand placement
- \*Kickback of Material
  - -Controls-Riving knife, push stick, appropriate push technique.

# **PPE/Safety Measures**

*Safety Glasses	*All Jewellery removed
*Hearing Protection	*NO loose fitting clothing
*Closed Toed Shoes	*Long Hair tied back and away from face
	*NO gloves
	*Long sleeves rolled up past elbows

# **Guards and Devices**

- \*Blade Height
- -Manually adjusted based on stock height: Should not be more than 1/8" higher than material being cut
- \*Push stick

You should use a push stick if your hands will be within 4 inches of the blade.

#### \*Safety Feature:

The Sawstop is designed to detect electrical resistance when materials pass through the blade. If Human skin contacts the blade, it detects an increase in resistance and fires the brake cartridge. The blade will drop below the table and embed into a block of aluminum, leaving the user with a small cut.

It is essential that the user ALWAYS practice responsible and safe habits when using the table saw, and not rely on this safety feature against unsafe operation.

ALWAYS inspect your material before you run it through the table saw. Errant staples and excess moisture in the wood can inadvertently set off the safety system. NEVER run through material that is painted, or the origin of which you are unfamiliar (reclaimed or pallet wood may not be run through the Sawstop)

# **Operational Notes**

\*Kickback

-Kickback is when the material you are running through your machine contacts the back half of the blade. The blade is spinning towards the operator, causing the material to fly back towards the user at considerable speed. Kickback occurs most frequently when the material pinches between the saw blade and the fence.

To avoid Kickback, ALWAYS USE the riving knife. NEVER make a freehand cut on the table saw. Use appropriate technique while pushing your material through the blade.

#### \*Acceptable Materials

\*The only acceptable materials to run through the table saw are hardwoods, soft woods, melamine, and MDF. NEVER send painted or wet materials, reclaimed materials, materials of unknown origin, metals, or materials off the laser cutter through the saw. (Note: the laser cutter will create a very high carbon build up on the edges of the material which makes the material conductive.)

#### \*Push stick

A push stick is a device which should be used if your cutting operation will require your fingers to be within four inches of the blade. This tool is used to safely push your material through the machine while keeping your hands far away from the blade.

#### \*Ripping

The term "Ripping" refers to processing your piece with the longest possible edge running parallel to the fence. This is the safest orientation to mill your material.

#### \*Crosscutting

The term "crosscutting" refers to processing your piece with the short edge running parallel to your fence. Whenever possible, crosscutting should be done either on the Compound miter saw or the sliding table panel saw. However if you must crosscut on the Sawstop, be sure to use a miter gauge or crosscut sled if needed.

#### \*Miter Gauge

The miter gauge is located on the side of the saw and fits into the grooves in the bed of the table saw. If you need to cross cut a piece, or cut an angle into a piece, you can position the miter gauge accordingly and use it to position your piece and safely run it through the blade.

#### \*Crosscutting Sled

A crosscutting sled is a device (often homemade) which fits into the slots on the bed of your table saw, and has a slot for the blade to pass through. This is an ideal device for crosscutting operations, as it allows you to safely anchor your piece against the back of the sled while making your cut.

# **Sequence of Operation**

1. Ensure the work table is clean, and the area around the saw is free of obstructions and other individuals who may be working around you.

- 2. Position the RIP fence so that the red reticule on the RIGHT hand side is positioned over the measurement you require. LOCK down the RED handle. Make sure your fence is secured and doesn't move. If it does, it is not secured
- 3. Using the Elevation Flywheel, adjust the blade to the proper height and pitch (if needed) relative to your material. The top of the blade should not be more than 1/8" above the thickness of your material.
- 4. Make sure the blade guard is DOWN, making contact with the table, and adequately shrouding your blade.
- 5. Position your workpiece so that you are manipulating from the back left corner, and position the far edge so it is tight against the fence. Your piece should be laying FLAT on the table as you push it through the machine.
- 6. Turn the saw ON, by pulling OUT the red paddle switch. With your right hand, (Or PUSH STICK) hook your thumb (or hook the PUSH STICK) behind your piece and push it firmly through the blade, while applying downward pressure.

With your left hand, apply gentle pressure to the left side of the board. Once you have started your cut, you may remove your left hand, and finish the operation with your right. Continuing to apply pressure with your left hand on the board after the cut has started can cause your piece to pinch the blade, which may cause the piece to KICKBACK on you.

- 6.1 Once the cut is complete, CONTINUE PUSHING your piece PAST the blade and down the runoff table.
- 7. Turn the saw OFF and wait for the blade to STOP turning.
- 8. RAISE the guard and clear away any debris or OFFCUT pieces.
- 9. SWEEP the table saw of any remaining dust and debris if you are finished with all of your cuts

#### TO USE THE MITER GAUGE

- 1. Ensure the work table is clean, and the area around the saw is free of obstructions and other individuals who may be working around you.
- 2. Move the RIP fence out of the way by pulling UP on the red handle and pushing it to the right.
- 3. Remove the MITER gauge (located beneath the table saw). Fit the miter gauge into the grooves cut into the table top. Adjust the MITER Gauge to the desired angle.
- 4. Using the Elevation Flywheel, adjust the blade to the proper height relative to your material. The top of the blade should not be more than 1/8" above the thickness of your material.
- 5. Make sure the blade guard is DOWN, making contact with the table, and adequately shrouding your blade.
- 6. Position your piece flat on the work top. NEVER cut warped or un even wood. With your right hand, hook your thumb around the wall of the miter gauge, using your other fingers to keep your piece tight to the miter gauge wall. Use your left hand to provide support as needed, or to grab the red Miter gauge handle.

- 7. Turn the saw ON by pulling OUT the RED paddle.
- 8. Carefully push your piece through the saw to make your cut. Ensure your right hand does not come within 4 inches of the blade. Once your cut is complete, retract the miter gauge while still maintaining a grip on your piece.
- 9. Turn the table saw OFF by pushing IN the RED paddle. Wait for the saw to finish rotating.
- 10. RETURN the Miter Gauge to the slot underneath the table.
- 11. SWEEP the table saw of any remaining dust and debris if you are finished with all of your cuts

#### TO USE THE CROSS CUT SLED

- 1. Ensure the work table is clean, and the area around the saw is free of obstructions and other individuals who may be working around you.
- 2. Move the RIP fence out of the way by pulling UP on the red handle and pushing it to the right.
- 3. Remove the CROSSCUT SLED from below the table saw. Fit the sled into the grooves cut into the table top.
- 4. Using the Elevation Flywheel, adjust the blade to the proper height relative to your material. The top of the blade should not be more than 1/8" above the thickness of your material.
- 5. LIFT the Blade Guard handle. LOOSEN the thumb screw on the support arm and PUSH the blade guard in to the right, to remove it out of your way.
- 6. Position your piece flat inside the worktop of your crosscut sled. NEVER cut warped or uneven wood. With your right and left hands, hook your thumbs around the back wall of the crosscut sled, using your other fingers to keep your piece tight to the crosscut sled wall. Apply downward pressure to the piece as well. Keep both hands on the RIGHT side of the piece, NOT THE OFFCUT SIDE.
- 7. Turn the saw ON by pulling OUT the RED paddle.
- 8. Carefully push the sled through the saw blade to make your cut. The sled should glide smoothly across the bed of the table saw. Ensure that your hands do not come within 4 inches of the blade. Once your cut is complete, retract the sled while still maintaining a grip on your piece, so that it is no longer in contact with the blade.
- 9. Turn the table saw OFF by pushing IN the RED paddle. Wait for the saw to finish rotating.
- 10. RETURN the CROSSCUT SLED to its home beneath the table saw.
- 11. SWEEP the table saw of any remaining dust and debris if you are finished with all of your cuts

### **Never**

- \*Use faulty equipment. Immediately report suspect equipment.
- \*Leave the machine running unattended
- \*Extend your arms over the blade or use your body weight to push a piece through the saw. You could lose your balance and accidentally come in contact with the blade.

# **Maintenance Notes/Service by Operator**

- \*Only workstation cleaning
- \*Contact Shop Supervisor/qualified person:
- \*If you require a blade change
- \*If you have triggered the safety brake
- \*Any additional help or support