Cluster #6 — Table Saw

Primary Use

The primary use for the table saw is to crosscut and rip wood to width and length. It may be necessary to explain what thickness, width and length are and how it relates to ripping & crosscutting wood to size. In addition, the SawStop saw is equipped with a Main Power Switch to supply power to the SawStop safety system, and a Start/Stop paddle to turn the motor on and off. All are mounted on the Switch Box, located just to the left of the elevation hand wheel on the front of the machine.

Important Parts

The most important features of the Table Saw are:

Safety System. The SawStop safety system consists of an electronic detection unit and a fast-acting brake designed to minimize personal injury when an accident occurs. The safety system does not prevent accidents. The safety brake is activated when a conductive material such as a finger touches the moving blade. The brake will be activated if touched when the blade is running, and ALSO DURING SPIN DOWN, AFTER THE SAW IS TURNED OFF. Do not touch the blade until the blade is completely stopped or the cartridge will be activated.

System Status Codes. On the switch box are red and green LED's that display the current status of the safety system. A solid Green LED code indicates all self-checks have been completed, the safety system is operating properly, and the saw is ready to operate. A page describing the System Status LED displays is hanging on the side of the switch box or in the drawer in the saw table.

Miter Gauge. The miter gauge is used for cutting of narrow workpieces at angles from 45 to 90 degrees.

Rip Fence. The rip fence is used for ripping to width. It is important that the fence is absolutely parallel to the blade.

Blade Guard. SawStop saw is equipped with a narrow profile blade guard assembly that allows use of the rip fence when making narrow rip cuts. As a result, there are only a few situations where the blade guard should not be used, e.g., dado cuts, rabbet cuts and extremely narrow cuts. For all other situations, use the blade guard.

Grr-Ripper. The Grr-Ripper is a precision-guidance, 3-directional control, push block system designed to feed wood on a table saw more safely than with your hands alone, and more accurately than with conventional push blocks.

Spreader. The spreader is a piece of metal directly behind the blade that prevents the material from binding on the blade and causing kick back. It is especially important to use the spreader for all ripping operations. This assembly also includes the anti-kickback fingers, also called the Pawls.

Riving Knife. A safety device installed behind the blade and attached to the saw's arbor assembly. Its job is to prevent kickback. It is fixed relative to the blade and moves as blade depth is adjusted.

Motor Cover. Must be fully closed to operate the motor.
Feather Board. The feather board is used to help keep the workpiece firmly against the rip fence.

Push Stick. A push stick is used when ripping wood that is less than 5" wide.

Stop Block. A stop block is secured to the rip fence and used to prevent binding of the wood when miter gauge is used with the rip fence. Usually used for making numerous cuts of the same length.

Vacuum Gate. The vacuum gate allows sawdust to be vacuumed from the saw.

Dado. To use the dado sets, the standard brake cartridge must be replaced with one specifically made for the dado set. If unsure, request the assistance of the Foreman on duty to install the dado brake cartridge and then re-install the standard cartridge when finished.

Adjustment Of The Tool

The top of the blade should be 1/8" to ?" above the workpiece. Square the Miter Gauge and blade to 90 degrees by using a tri-square or digital gauge. The miter gauge can be used in either slot; however, do not use the miter gauge in the slot on the left of the blade when making bevel cuts. This positioning causes the blade to be tilted toward the operator's hand, which could result in a serious injury.

Demonstrate the basic operation

* Ripping to width; with and without the use of a push-stick.
* Simple crosscutting.
* Crosscutting with the use of a stop block. Explain- the work must be clear of the stop block before it contacts the blade.

Safety

- **Always wear eye protection.**
- The blade guard must be installed for all ripping operations unless there is a specific reason for it to be removed. The blade guard incorporates a Spreader assembly, and includes anti-kickback fingers, called Pawls, spring

loaded metal grabs (teeth) that dig into the wood to prevent a kickback. The riving knife may be used in lieu of the blade guard only if a specific requirement prevents the use of the blade guard, and must be installed only with the Shop Foreman's concurrence. The requirement to install either the blade guard or the riving knife does not apply when the dado assembly is installed.

- The use of the Grr-Ripper should be considered anytime you are cutting on the table saw.
- Never attempt to make a freehand cut.
- Always stand to one side, never directly behind the saw cut.
- Never reach over a turning saw blade to pick up material.
- **Do not touch the scrap material or blade** until the blade stops moving and the LED lights stop blinking. Human contact with the moving blade, even if contact is through a metal object, can cause severe damage to the brake cartridge and blade, and could activate the cartridge.
- Ensure the rip fence is locked before its use.
- Never use the miter gauge and rip fence at the same time without the use of a stop block.
- Do not use twisted, warped or pressure treated wood. Wet or green wood should display an error alert on the LED panel. Clear the error before continuing.
- Obtain assistance when cutting large pieces of sheet material (plywood, particle Club Board, etc) or use the panel saw, Cluster #13.
- Secure long hair and long sleeves. Don't wear loose clothing, loose jewelry or gloves.
- Use a push stick when necessary.

Give Hands On Experience

TABLE SAW, MEMBER DEMONSTRATION
Size of wood for demonstration: 3/4"x8"x16" Pine

Ripping
Have each member perform the following:

- Set 6" between the rip fence and the blade. Ensure fingers are well away from the miter gauge groove so they will not be pinched when the fence is moved across it.
- Set the blade to the correct height.
- Do not stand directly behind the work piece when cutting.
- Rip the work piece completely through, pushing it completely past the blade.
- Take a second cut with 4" between the rip fence and the blade. This time use the Push Stick. Be sure the Push Stick is placed just to the left of the center of the work piece being cut.

- Rip the work piece using the same techniques as before. Keep the wood moving at a constant rate until completely through the cutting area.
- Turn off the saw.

Crosscutting
Have each member perform the following:

- Place the miter gauge in the slot on the left or right side of the blade.
- Slide the rip fence away from the work area.
- Set the blade to the correct height.
- Stand in a comfortable position to the side of the blade path.
- Place the flat edge of the material tight against the miter gauge and crosscut on a pre-drawn line.
- Ensure the wood clears the blade before you stop the cut.
- Turn off the saw. Lower the blade. Clean the area.

If you feel uncomfortable with the demonstration, repeat the procedure.