

# **Table-saw Safety Accreditation notes**

Accreditation notes # 9

Revised June 2018

#### Note: Accreditation should be viewed as the start of a learning experience, not the end. Continue to learn as much as you can about setting up and using Guild equipment. By increasing your knowledge, you will reduce the chance of an accident and get better results. If you are unsure of any aspect of use, ask an experienced operator.

## Safety

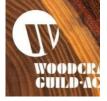
- 1. The *SawStop* saw is equipped with an electronically triggered brake to prevent serious injury. DO NOT under any circumstances try to cut green or wet wood, metals of any sort, carbon fibre or mirrored acrylic as these materials will trip the brake and destroy the saw blade and electronic brake cartridge under the blade. Any timber which may contain embedded metal such as nails should be thoroughly checked with the metal detector before being cut.
- 2. Unlike a bandsaw, timber must not be cut freehand. It is unsafe to use the saw without some form of guide mechanism such as a rip fence, mitre slide or sled.
- 3. Hearing protection plus safety glasses or a face shield must be worn.
- 4. Avoid gloves and loose clothing. Tie up long hair.
- 5. Always use the riving knife attached to the saw.
- 6. If a blade needs to be changed, call an experienced operator. The rip blade is the default blade and must be replaced after using the combination blade.
- 7. The Blade Guard Assembly (BGA) should be reinstalled at the end of sawing if it was removed to utilise just the blade and riving knife. NB: The BGA is also far more efficient at dust collection.
- 8. A major danger when using a tablesaw is "kick back". This occurs when timber hits the back of the blade which is moving upwards and flings the workpiece upwards and backwards. It is most likely to occur with short workpieces and before the workpiece touches the riving knife or anti-kickback pawls. Push devices that incorporate downward pressure along the workpiece help eliminate this danger. View the following Youtube video: <u>Preventing tablesaw kickback</u>
- 9. Keep the floor area around the saw clear of obstructions.
- 10. If unsure of any operation, ask an experienced operator for assistance.

## Sawstop table saw components

- 1. The *SawStop* saw is equipped with a safety system to prevent serious injury from contact with the saw blade. The safety system consists of an electronic detection unit and a fast acting brake. Apart from the human body the detection unit is triggered by conductive materials as outlined above under Safety. If the detection unit is triggered a spring pushes an aluminium pawl into the teeth of the spinning blade which destroys the blade. There is a particular "switch on" procedure described in the manual which must be followed.
- 2. The safety mechanism is still in operation after the power switch has been turned off (paddle switch) and the blade is coasting down. Any contact with the blade during this time will trigger the safety mechanism.
- 3. Table saws generally consist of a circular saw blade mounted in a tilting arbor fixed under a metal table top with slots machined for both ripping and cross-cut (mitre) fences. They also have a riving knife to prevent kick-back and a safety guard on top of the blade.

#### Before you start

1. Read the saw's manual: the User's manual for the *SawStop* 10" Industrial Cabinet saw as owned by the Guild is at:- <u>SawStop Manual</u> and be especially aware of its special safety features. Do not saw conductive material such as green timber or aluminium on the Guild's *SawStop* tablesaw. These materials will trigger the safety brake. NB:- If a member does trigger



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the brake, he or she will be required to reimburse the Guild for a replacement brake and blade which is normally destroyed with operation of the brake.

- 2. The blade height should be set so it does not extend more than the depth of the gullet (cutout between the teeth on the blade) above the height of the piece being cut. However, when ripping thin stock, the blade extension may need to be increased to avoid the greater chance of kickback (gullet of the teeth well above the timber).
- 3. Ensure that there is adequate support to hold the work piece.
- 4. Turn the saw on and wait for a constant green light.
- 5. Before operating ensure that the main dust extractor is turned on and the blast gate is open. For best results, the blast gates for the other machines not in use are closed. The switch for the extractor is on the wall near the corner of the lathe area. (note: you should ensure that the dust bins on the extractor are not full before you use any of the machines)
- 6. Pull the paddle switch to start the saw.

## Operation

- 1. Choose proper blades for the type of work being done. Ripping requires a wide blade with few teeth and large gullets to remove sawdust rapidly. Cross-cut sawing requires a blade a large number of teeth.
- 2. Ensure that the base of any stock you wish to saw is flat on the bottom. Sawing pieces which may rock or twist is dangerous as the blade can suddenly 'grab' the stock and pull it from your grip.
- 3. Do not use excessive force to push timber too hard or fast. Pushing too fast will cause the blade to overheat and blunt it more rapidly. The best quality cuts are produced through a combination of a sharp blade and a slow feed rate.
- 4. Keep your body and face to one side of the saw blade out of the line of a possible kickback.
- 5. Use a push stick when ripping narrow or short stock (e.g. when the fence is set less than about 15 cm from the blade; when the piece is less than 30 cm long or when the last 30 cm of a longer piece is being cut).
- 6. Move the rip fence out of the way when cross cutting. Never use it as a cut off gauge.
- 7. When ripping timber, use the fence to control the work-piece. When ripping it is preferable to use a fixed feather-board to hold the timber against the fence.
- 8. Any assistant helping at the out-feed end of large/long work-piece(s) should NOT pull or guide the work-piece under any circumstances.
- 9. Do not leave the saw running unattended. Turn the power off and make sure the machine has stopped running before leaving the area.

## When you have finished your job

1. Clean up all sawdust and offcuts. Offcuts should be placed in the bin provided and when that is close to being full, can be emptied into the trailer. Sawdust should be swept up and the area vacuumed with the large vacuum on wheels.

## Additional information

- Check out "The Table Saw Book" by Kelly Mehler from the Guild Library. Other good books and DVDs are also available. (Do we have this book or something similar?)
- The link below outlines the use of the Canadian Centre for Occupational Health & Safety material and is a good source of information. <u>Canadian Centre OH&S</u>