

Kushed Procedures

Table Saws

W1



10" Table Saw with Extension



10" table Saw



The Shed provides items such as welding masks and gloves.

Members are required to provide their own footwear, eyewear, hearing protection and masks.

Safety

This is a very high priority for our Shed members. There are some aspects that are mandatory under our insurance policies and some which the The Shed requires members to adhere to for everyone's benefit.

The Shed Safety Induction

It is a requirement of attendance at The Shed that members have reviewed the Safety Induction Presentation

Personal Protective Equipment

This is required in various forms depending upon the equipment being used or the activity being undertaken.

Protective eyewear is always mandatory when using machinery.

The Shed schedules a Coordinator and a First Aid Safety Officer for each day of attendance and their safety directions are final and must be adhered to.



Key Features of this Machine

The Table circular saw is also known as a Bench saw. This saw has the capacity to quickly and accurately reduce timber to size and shape. The saw blade can be tilted for bevel cutting and the machine can be set up for ripping, and with the sliding cross-cut (mitre) fences, for cross cutting.

WARNING – In many US images and tutorial videos you will see table saws being operated without a blade guard.

This is very dangerous and banned at our Shed.

Features

Rip Fence: provides a true surface, running parallel to the line of the blade, to guide the timber when making lengthwise cuts. It is mounted and to be locked on the guide bar which runs across the front of the table and beyond the width of the table to facilitate tracking and adjustment.

Cross Cut Fence (Mitre fence): this fence supports the material at the required angle to the blade as well as acting as a pushing device when docking timber to length and mitring. It can be set and locked at various angles.

Riving Knife: this fin-like device protrudes through the throat plate just behind the blade. It holds the saw kerf open to prevent the timber jamming on the blade. Jamming can cause serious kick back of the work. The riving knife should not be removed under any circumstances. It will prevent the cutting of grooves deeper than 20 mm because it rises above blade height for deeper settings.

Blade Guard: is to cover as much of the exposed blade as possible, without restricting material movement or operator's control. It also acts as a dust collection hood. Limiting guard-to-timber clearance to 12mm, gives maximum operator protection against blade contact and timber kickback.



Blade rise and fall hand-wheel with lock knob: this control operates the height adjustment for the blade. (Front)

Blade tilting hand-wheel with lock knob: this adjusts the blade angle or tilt off vertical for longitudinal bevel cuts. (Left Side)

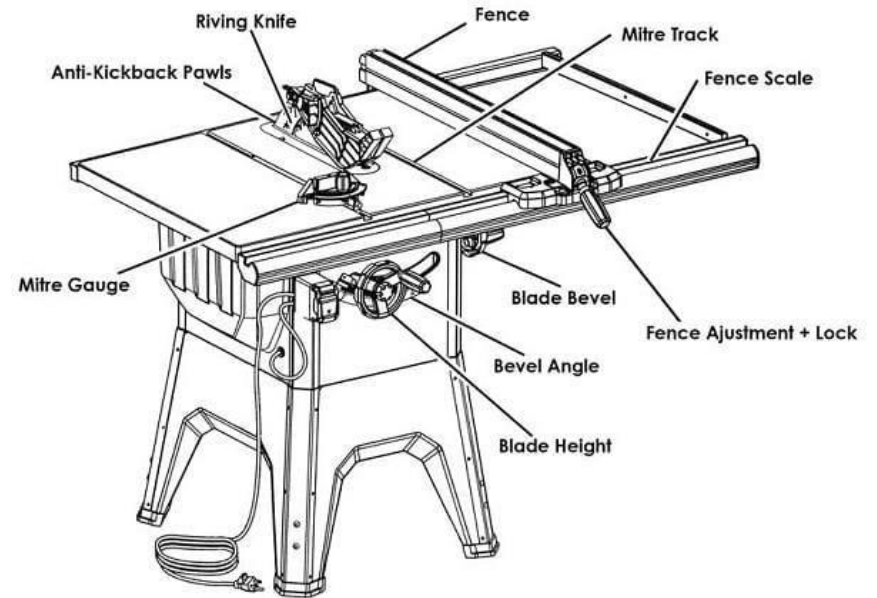
Make sure that you lock these adjustments before use !

Extension Table: this additional attachment on both machines enables accurate docking and cutting of small panels to width. The sliding fence on this device has an adjustable swinging stop which can be used for governing the width of panels or length of small pieces to be docked. It enables a repeat size up to 100cm to be cut.

Knee-pad STOP: this added feature is available on both machines and enables the operator to stop the machine without using their hands. This safety stop switch is a big advantage in removing the need for the operator to reach down in front of the table prior to the machine stopping. Both hands can be occupied in controlling the work-piece or offcuts until the blade is stationary.

It is vital to learn what each part does, when to use it and more importantly when not to use it.

The primary issue is safety, and the secondary issue is the quality of work produced.



What is wrong in this picture ?

Make a push stick your best friend!

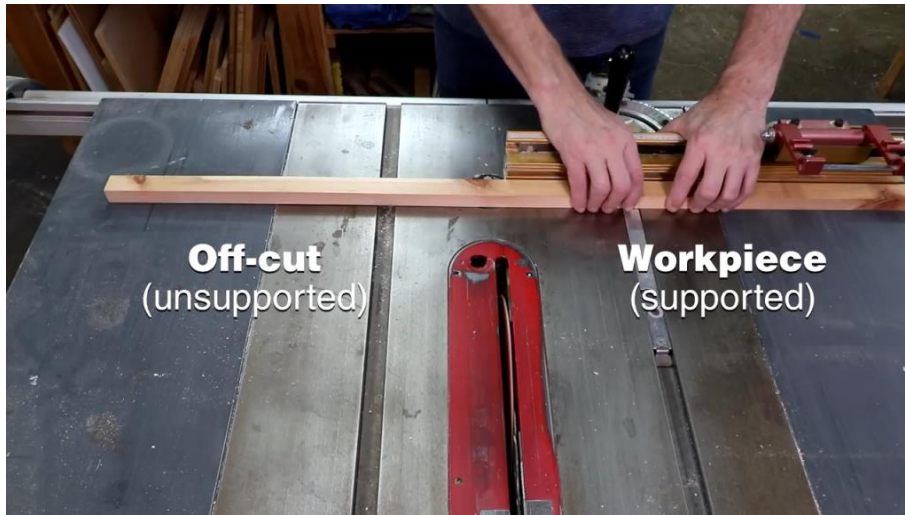
There is a lot that is wrong here!

- No safety cover
- No dust extraction
- No side pressure
- Nothing to hold the wood down
- Nose on push stick is too short
- Should use a second push stick
NOT his hand



Before the Cut

- Ensure that the Table saw is the most appropriate machine to use for the intended operation. Docking smaller and longer timber is better done on the Compound Slide saw. Cutting across large sheets may be better done using the Panel saw.
- Get assistance if handling large sheets or long lengths of timber. Assistants should not pull at the work-piece but simply support its weight.
- Timber to be cut must be carefully examined for defects such as twist, bow, splits and nails before they are cut to ensure it is safe to proceed. Wood that has a twisted grain, lack of a straight edge to guide work along the fence, or work that is twisted or not flat and could possibly rock on the table and pinch the blade is then prone to kickback. Sometimes a guide strip can be nailed to timber being ripped.
- If at any time, the operator does not feel completely confident in using the Table saw, they should seek assistance from a Coordinator.



Make sure that your work is properly supported



NEVER do this.



Assume nothing is set accurately when you go to use the machine.

- Before making any adjustments, a red mushroom isolating switch should be in the “off” position. The machine must be isolated from the main electricity supply. Double check by pressing one of the “off” switches. There are two red mushroom “off” switches on the northern most machine. These switches must be reset by rotating them before the machine can be operated.
- When using the Table saw, it and the work area should be clean and free of off-cuts and other obstacles. Guards must be fitted, correctly adjusted and secured. The crown guard (dust hood) must be as close as practicable to the work-piece. The throat insert must be in place and the throat slot must be clear of off-cuts.
- Check the tilt angle with a try square for vertical cuts; check the cross-cut fence angle to the blade surface when setting its angle of approach; measure the gap between the teeth tips and the ripping fence for accurate width settings. Do not rely on scale graduations of angles or width scale for accuracy
- Operational equipment such as a push stick should be readily available before turning the machine on. It is too late to be over-reaching for items when halfway through a cut.



Make sure the riving knife is set correctly

- Check the riving knife for correct, secure fitting, not bent and lining up behind blade.
- Ensure blade depth, mitre angles and width fence are locked with appropriate hand nuts or fence lever before turning machine on.
- Ensure the dust extractor system is turned on at the wall and duct gate is open. Our dust extractors are automated however it is always good to check..

When Making the Cut

- Never start the machine when the teeth are in contact with the work-piece. This can severely damage the tungsten carbide tips and prevent proper control of the timber.
- Unless cutting grooves, the blade should be set with the teeth clear (at least half gullet depth) above the top of the timber being cut to reduce the risk of kickback. If using the the ripping fence, it should be square to the table and parallel to the blade when set. Never try to set the width of cut when the machine is running.



Timber clear of fence on crosscut

- Never use a length stop on the free end or edge of the work-piece when crosscutting. Keep the ripping fence well clear of the blade and timber when docking timber to length. For docking, mark cut position on leading edge of timber and use the crosscut fence to push work through. If using the extension table length stop, ensure that it is rotated out of the way after aligning the work-piece to it and before making the cut.
- Never gang crosscut because the blade may pick up one or more of the work-pieces and cause loss of control or injury.
- Never cut round stock on table saw unless completely supported with a cradle or a means to stop work rolling into blade.



- **Push wood with a push stick** for work between the fence and blade unless using the cross-cut fence. Kickback is most likely to occur to timber between the blade and ripping fence so never stand in line with the area between the blade and ripping fence. A long-nosed push stick may help hold work down on the table as it passes the back of the blade. Objects can be thrown upward towards operator by the back of blade if not held down.
- Do not push a work-piece on both sides of blade. This causes a wedging action on the blade and can cause jamming, loss of control and/or kickback.
- Use the correct cross-cut fence to match whichever groove of the table is being used as a guide. There are left and right cross-cut fences. The shorter cross-cut fence can be used on either side.
- Never attempt to "free hand" cut ie without using fence or guide.
- To prevent bending of the riving knife, ensure that the work-piece lead-out remains straight until after the riving knife has been cleared. Releasing the work-piece before it is clear of blade can cause kickback.



DO NOT push on the left side

- Off-cuts and saw dust must not be removed from the table by hand when the blade is rotating. Never reach over or behind blade with either hand for any reason.
- Hands should never be placed closer than 150mm to the blade unless the machine is totally isolated from the power supply.
- Never try to clear a jammed work-piece without first turning machine off. Use knee-pad STOP switch if available.
- A push stick should be used to keep the hands away from the blade when cutting narrow or short material.
- The machine and work area should be kept clean and free of off-cuts. Slightly bowed material should be ripped with the bow against the fence or table. Twisted material should be cut into short lengths and planed flat on one side before ripping. If you are not sure, then seek expert advice from a coordinator.
- When long lengths are ripped, an outfeed table, roller stand and/or another person is required to 'tail out' as the ends of the material clear the saw bench. The tail-out person should not grip the work-piece but simply support its weight.



Cutting a box lid

This requires removal of the overhead safety and dust collector hood.
It can only be done under the supervision of a coordinator and proper technique must be adhered to,

- The operator should never reach around the work-piece and grip it behind the cut. Gripping the work-piece behind the cut can lead to hands being drawn into the rotating blade if the work jams and kicks back.
- When cutting “box lids”, the safety and dust hood may need to be removed temporarily. One method is to cut a long edge first, followed by the two ends and then use a suitable wedge in the first cut to hold the top and base apart to allow for cutting the last long edge. The wedge prevents the timber from closing in on the blade. Boxes with sides up to 20mm thick can be cut and still clear the riving knife. Advice should be sought from a Coordinator who has previous experience with this operation if you have not done this before.
- Shallow grooves can be cut for ply sliding lids or box bases but special care must be taken to ensure that the wood is held well down onto the table with a push stick to prevent kick back of the wood.
- Wood being cut must be pushed completely past the blade before turning machine off unless material has become jammed.



Some good online tutorials

Remember when watching tutorials that many US table saw users remove the blade safety guard which is a dangerous thing to do.

It is mandatory at the Shed and may only be done for special requirements under the supervision of a coordinator.

<https://www.youtube.com/watch?v=qSbS5zhH7cE>

<https://youtu.be/JOhZxvgkWNM>

After the cut

Try to avoid bending down to turn right mushroom stop switch off when finished cut. This places the upper body and head in line with the kickback area. Use of the left knee on the left mushroom switch (or knee-pad switch) to turn the machine off is recommended. This procedure should be practised by operators when being accredited to ensure they are familiar with how to locate the switch with their knee.

Exercise extreme care when handling melamine coated sheets which have bevel cuts on their edges. These edges are very sharp and can cause severe cuts.

The saw should never be left unattended when the blade is still rotating.

Clean up after yourself

Don't leave tools or offcuts on the saw

Set the saw back to vertical if you have changed angles