SAFE OPERATING PROCEDURE & ACCREDITATION ASSESSMENT GUIDE

TABLE SAW (10"Major) With extension slide

Accreditation Code

W1

Safety Requirements whilst operating the Table Saws.



Compulsory



During Extended operation



Close fitting /protective clothing must be worn.



Long and loose hair must be contained.

Turn on dust extractor at wall, SEcorner. This machine is attached to the dust collection ductwork but duct gate must be opened.

- The key features of the Table Saw must be understood and be capably demonstrated during competency assessment.
- Competency will be assessed on both knowledge of key features and demonstrated safe operation of the Table Saw.
- This procedure must be read in conjunction with the Shed's 'Induction Package'.
- Persons who have had a driver's licence renewal declined because of failure to pass their driver's competency test should not operate the Table Saws unless special Accreditation approval has been given in negotiations with the Shed's management committee.

Key Features of 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.

- *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.
- **Blade tilting hand-wheel with lock knob**: this adjusts the blade angle or tilt off vertical for longitudinal bevel cuts.
- Extension Table: this additional attachment on the southern most machine 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 the southern most machine 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.

Safety Issues and Procedures

AlwaysSTOP... &.....THINK before using this machine!

Before the Cut

- Ensure that the <u>Table saw</u> is the <u>most appropriate machine to use for</u> the intended <u>operation</u>. Docking smaller and longer timber is better done on the Compound Slide saw. Cutting across large sheets may be better done using the Track saw.
- 2. Get <u>assistance</u> if handling <u>large sheets</u> or <u>long lengths</u> of timber. <u>Assistants</u> should <u>not pull</u> at the <u>work-piece</u> but simply <u>support</u> its <u>weight.</u>
- 3. <u>Timber</u> to be cut must be carefully <u>examined for defects</u> such as twist, bow, splits and nails before they are cut <u>to ensure it is safe to proceed</u>. 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 table and pinch the blade is prone to kickback. Sometimes a guide strip can be nailed to timber being ripped.
- **4.** If at any time, the <u>operator</u> does <u>not feel</u> completely <u>confident</u> in using the Table saw, they should <u>seek</u> assistance from a Coordinator.
- **5.** Ensure the blade is installed with teeth pointing toward operator and downward toward table in the direction of rotation.
- **6.** <u>Before</u> making <u>any adjustments</u>, a red mushroom <u>isolating switch</u> should be in the <u>"off" position</u>. 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.
- 7. 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.
- **8.** Assume nothing is set accurately when you go to use the machine. 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. <u>Do not rely on scale graduations</u> of angles or width scale for accuracy.
- Operational equipment such as a <u>push stick</u> should be readily <u>available before turning</u> the machine <u>on</u>. It is too late to be over-reaching for items when halfway through a cut.
- 10. <u>Check riving knife</u> for correct, <u>secure fitting</u>, <u>not bent</u> and <u>lining up behind blade</u>.
- **11.** Ensure <u>blade depth, mitre angles</u> and <u>width fence</u> are <u>locked with</u> appropriate <u>hand nuts or fence</u> <u>lever before</u> turning <u>machine on.</u>
- 12. Ensure dust extractor system is turned on at the wall and duct gate is open.

When Making the Cut

- **13.** <u>Never start</u> the <u>machine when the teeth</u> are in <u>contact with the work-piece</u>. This can severely damage the tungsten carbide tips and prevents proper control of the timber.
- **14.** 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 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.
- 15. <u>Never use</u> a <u>length stop on the free end or edge of the work-piece</u> when crosscutting. <u>Keep ripping</u> <u>fence well clear of blade and timber when docking</u> timber to length. For docking, mark cut position on

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leading edge of timber and use the cross cut fence to push work through. If using the <u>extension table</u> <u>length stop</u>, ensure that it is <u>rotated out of the way</u> after aligning the work-piece to it and <u>before</u> <u>making the cut</u>.

- **16.** <u>Never gang crosscut</u> because the blade may pick up one or more of the work-pieces and cause loss of control or injury.
- **17.** <u>Never cut round stock</u> on table saw unless completely supported with a cradle or a means to stop work rolling into blade.
- 18. <u>Push wood with</u> a <u>push stick for work between</u> the <u>fence and blade unless using</u> the <u>cross-cut fence</u>. Kickback is most likely to occur to timber between the blade and ripping fence so <u>never stand in line</u> <u>with</u> the <u>area between</u> the <u>blade and ripping fence</u>. 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.
- **19.** <u>Do not push work-piece on both sides of blade</u>. This causes a wedging action on the blade and can cause jamming, loss of control and/or kickback.
- **20.** 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.
- 21. Never attempt to "free hand" cut ie without using fence or guide.
- **22.** 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.*
- 23. <u>Off-cuts</u> and <u>saw dust must not be removed</u> from the table <u>by hand when the blade</u> is <u>rotating</u>. <u>Never reach over or behind blade with either hand</u> for any reason.
- **24.** <u>Hands should never be</u> placed <u>closer than 150mm to the blade unless machine</u> is <u>totally isolated from</u> power supply.
- **25.** <u>Never try to clear</u> a <u>jammed work-piece without first turning machine off</u>. Use knee-pad STOP switch if available.
- 26. A push stick should be used to keep the hands away from the blade when cutting narrow or short material.
- **27.** The material should never be force fed causing overload on the motor.
- **28.** 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.
- **29.** Released stresses within the fibrous structure of some wood being ripped can cause jamming of the blade as the timber closes in on it. This may necessitate an alternate approach to ripping. Release of internal stresses can also cause spreading of timber being ripped.
- 30. When <u>long lengths</u> are ripped, an <u>out feed table</u>, <u>roller stand and/or another person</u> is <u>required to 'tail out'</u> 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. 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.
- 31. When cutting "box lids", the 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.
- **32.** Shallow grooves can be cut for ply sliding lids or box bases but special care must be taken to ensure that the wood is well held down onto the table with a push stick to prevent kick back of the wood.

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33. <u>Wood being cut must be pushed completely past</u> the <u>blade before turning machine off unless material</u> <u>has become jammed.</u>

After the cut

- **34.** Try to <u>avoid bending down to turn right mushroom stop switch off</u> when finished cut. This places the upper body and head in line with the kickback area. <u>Use of left knee on left mushroom switch (or knee-pad switch) to turn machine off</u> is <u>recommended.</u> This procedure should be practised by operators when being accredited to ensure they are familiar with how to locate the switch with their knee.
- **35.** 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.
- **36.** *The saw should never be left unattended when* the *blade is still rotating*.
- **37.** Ensure all push sticks, fences and any tools or equipment are cleared from the work table and put back in appropriate racks or storage.
- **38.** The dust collector gate should be left open unless another machine has an open gate. This ensures a free flow of air to prevent choking and keep the extractor system operational. Turn extractor off at wall if it is no longer being used.

	COORDINATORS' OPTIONAL CHECK LIST AND NOTES (Various timber sections and sheet off-cuts are suitable for the following demonstrations by the Applicant)	INITIAL	DATE	
	1. Carry out appropriate checks of saw prior to using it (including checking accuracy of blade angles for vertical cut and 90 degree docking cut)			
	2. Set up straight cuts for pieces of timber and demonstrate action of sawing off a small piece from end of timber and a piece of sheet material			
	3. Set up fence to rip timber to predetermined width			
	4. Rotate table of the saw to angle of 30 degrees to vertical and demonstrate angled ripping cut			
	5. Set up mitre fence to cut a 45 degree end on timber			
	6.			
	7.			
	8.			
	9.			
	10. Carry out normal procedures at completion of work			
	Version Date: 13/6/2013 Version Prepared by: K Callinan Version Author	orised by: MB	ailey	
Please tick ONLY ONE of the boxes: New Accreditation to be added to records Confirmation of existing accreditation				
Accreditation seekers signature: Date: Accred Code: 1st Assessor's signature:		2 nd Assesso	r's signature:	
·	rint Name:	Print Name: .		

NB A copy of this document is to be completed and filed in the member's personal file at the Shed. Additional copies are available through email or hard copy by if requested. The member's Shed computer records and name tag will be amended when Accreditation is finalised.