

Bandsaw Safety Accreditation Notes

Accreditation notes # 1 Revised: December 2014

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 each item of 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. Hearing protection must be worn and safety glasses or a face shield are desirable.
- 2. Avoid gloves and loose clothing. Tie up long hair.
- 3. When cross-cutting round logs a 'V' shaped support must be used.
- 4. Do not saw green timber on Guild band saws. Wet wood gums up the blade and renders it useless for subsequent users.
- 5. Set the blade guard assembly close to the top of the stock you are cutting (5-10 mm).
- 6. Cut timber to a manageable size with a bow saw or chainsaw before using the band saw. Get assistance with long lengths of timber.
- 7. The primary operator pushes the timber through the saw-blade. The helper should not 'pull' the timber.
- 8. "Push-sticks" are essential when operating a band saw. Use a push-stick when the timber crosses the front of the saw table. Do not place your hand in line with the moving saw blade.
- 9. If a machine requires adjustment or a saw blade needs to be changed (other than adjusting the top guide assembly), seek assistance from an experienced operator until you have sufficient experience.
- 10. Keep the floor area around the saw clear of obstructions.
- 11. Power cords on the floor pose a trip hazard and cords may be damaged. Hang cords safely overhead where possible or at least away from thoroughfares.
- 12. If unsure of any operation, ask an experienced operator for assistance.

Bandsaw components

1. A band saw consists of (generally) two wheels, around which an endless steel blade turns. The upper (mostly) wheel can be tilted to centre the blade on the wheels and has a tensioning device. A motor is attached to the lower wheel to drive the saw. Guides are provided each side of the saw blade both above and below the table. Thrust bearings are also provided behind the blade above and below the table. Correct settings of the tilt, tension, guides and thrust bearings are all essential for proper use of a band saw.

Before you start

- 1. One of the three Guild saws has a 'de-tensioning' device fitted. Re-tension the blade before each use and remove the 'de-tensioned' notice. It is also advisable to ease the tension on the other saws when they are not in use. Ensure a notice is in place when this has been done.
- 2. Check that the guides above and below the table are running freely and are correctly positioned (close to the saw blade but not touching).
- 3. Adjust the height of the top guide assembly so that it just clears the timber you plan to cut.
- 4. Check timber for metal inclusions and clean with a stiff brush if necessary
- 5. Turn the saw on at the power point.
- 6. Turn on the dust extractor.
- 7. Turn on the saw on.



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Operation

- Ensure that the blade on the saw is suitable for the job in hand. "Standard" blades are fitted to the three Guild saws as follows: a) 18" Hammer: 19 mm (3/4") x 1.3 tpi (teeth per inch)
 b) New 14" Jet: 12 mm (1/2") x 3 tpi c) Older 14" Jet: 10 mm (3/8") x 4 tpi
- Re-sawing wide boards requires a wide blade with few teeth and large gullets to remove sawdust rapidly (e.g. 19 mm blade). Sawing thin material requires a blade with many teeth (aim for three teeth in contact with the wood). For small diameter cuts, a narrow blade must be used to follow the curve (e.g. 10 mm blade). A table of blade widths for particular diameters is posted on the 14" Jet bandsaw.
- 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 to the operator and may damage the saw.
- 3. Cutting circles (such as turning blanks) is best done using a jig. A circle cutting jig is available for the 14" Jet band saws.
- 4. 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 with a combination of a sharp blade, properly set guides and a slow rate of feed.
- 5. If the wood is hard to push, if you smell burning, if the blade begins to 'oscillate' or it starts to 'scream', stop the saw and determine what is causing the problem. The blade may be blunt or cracked or the tension may not be correct. If the blade needs to be changed, ask for help to do so until you are familiar with this operation.
- 6. Keep your hands well clear of the moving blade. Always have a push-stick handy for pushing the end of a board past the blade.
- 7. When cross-cutting timber, use the mitre gauge bar whenever possible for better control of the timber.
- 8. When ripping timber, use the fence whenever possible for better control of the timber. When ripping (re-sawing) wide boards, a second push stick, or preferably a fixed feather-board should be used to hold the board against the fence.
- 9. Do not back the stock away from the blade while sawing. Stop the saw before clearing stock that has become bound in the saw.
- 10. 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.
- 2. De-tension the blade and replace the notice to indicate that you have done so.

Additional information

- 1. Check out "Band Saw Handbook" by Mark Duginske from the Guild Library. Other good books and DVDs (Mastering Your Band Saw & Band Saw setup) are also available.
- 2. Check out the video of setting up a bandsaw by Michael Fortune: <u>Setting up a bandsaw</u>