13.7.1 Band sawing machines

NOTE Band sawing machines are “high-risk woodworking machinery” (see 13.1).

WARNING. Learners should only use band saws when they have been assessed and the assessment has shown that they are competent, and they are under the direct supervision of specifically trained employees.

13.6.1.1 Hazards

Employees and learners should be made aware of the following hazards.

a) Work pieces, which can become jammed in band sawing machines.
b) Bench mounted band saws, which can become detached from the bench.
c) Hands or fingers, which can come into contact with the blade.
d) Clothing, which can become entangled with the blade.
e) Wood dust, which can be inhaled.
f) Noise, which can cause permanent hearing damage.
g) Inadvertent starting of the machine.
h) The blade running on after the machine is switched off.
i) Withdrawing the work piece with the machine running.
j) Blunt or damaged blades.

13.6.1.2 Risk control measures

The machine should be provided with:

a) a means of electrical isolation using a fused isolating switch on or adjacent to the machine, and that it is controlled by a starter incorporating overload protection and no-volt release;
b) a conveniently positioned and accessible, emergency stop switch (which could be the normal “off” switch) or other suitable control device that can quickly stop the machine in an emergency.

It should be possible to lock to “off” whenever the machine is not in use, if a key actuated locking device is not incorporated in the machine itself.

Band saws should be checked so that they are secure. Bench mounted models should be effectively fixed to the bench.

The pulley wheels and blade (except for the down-running part through the machine table) should be completely enclosed by the frame of the machine and/or fixed guards (removable only with the use of a tool), or alternatively interlocked guards. A guard that can be adjusted to suit the height of the work piece should protect the part of the blade not used for cutting. The guard should be connected to, and moved with, the upper blade guide.

Learners should only be trained to use band sawing machines by a competent and trained person. A record of their training should be kept.

NOTE 1 The trained person is defined as someone who has been trained in accordance with the Health and Safety Training Standards in Design and Technology [N1], or who holds other recognized qualifications to industry standards.

A risk assessment should be carried out to evaluate the likely risks to health from inhalation of wood dust and any action required to prevent or control the risks (see 13.1). RPE conforming to BS EN

149:2001+A1 class FFP3 or P3 filtered masks should be used to cater for residual risk where the LEV provided is not fully effective.

PPE, including suitable eye protection conforming to BS EN 166:2002 1B (medium energy impact), should be used while operating the machine.

Long hair should be protected from entanglement.

Saw blades should be of the correct pattern, sharp and distortion-free.

NOTE 2 Blunt or distorted blades can break if used.

Saw blades should have the full number of teeth, as missing teeth can cause timber to “kick back”. The saw blade should be checked for correct tension and tracking before use. If a machine is fitted with a brake, it should be used with care.

The top and bottom guides, if not aligned properly, can cause damage to the blade; the top guide should be adjusted to the lowest possible position and the part of the blade above it properly guarded. The top guide/guard should not be more than 12 mm above the top surface of the material being cut.

NOTE 3 The use of a lower sub fence might be appropriate.

The guide blocks and table should be maintained in good condition.

Users should be informed to keep their fingers clear of the saw line and should not make adjustments to the machine set-up until it stops.

NOTE 4 A suitable push stick, workpiece support and/or jig would be required. For further information on machine operation see Narrow band saws: Safe working practices, Woodworking Sheet No 31 (Revision 1) [58].

The blade of the machines should come to rest within 10 s of the machine being turned off.

Care should be taken when withdrawing the work piece while the machine is in operation (e.g. after making a long curving cut, when friction between the blade and the work piece can pull the blade off the guides and pulley). Care should be taken not to make a curving cut with too small a radius in relation to the blade width and tooth size.

Bench mounted band sawing machines should be checked so that they are securely fixed to the bench before use.

The machine should be included in a planned maintenance programme that includes electrical safety tests.