Band Saw Operation

1. Introduction

a. Shop Safety Reminder

Wear safety glasses.

Avoid loose clothing; roll up sleeves, tie hair back, and no gloves.

Know location of On/Off switch - It’s different for each machine.

Never touch the blade while the blade is moving.

b. Main Shop vs. Wood Shop Saws

Main Shop = Metal/Plastic (Steel vs. No Steel)

Wood Shop = Wood/Plastic

When using the Jet wood band saws, make sure to set the blade tension before use and release the tension after use as per the instructions on the machines.

c. Saw Application

Saws are used to cut sheet, tube, or stock into different lengths, angles, or contours. They are also used to remove excessive stock for further machining.

d. Parts of the Band Saw

On/Off Switches.

Blade Guard, Adjustments.

Air Hose, Lamp, Fence, Brakes on the Wood Saws.

2. Setup

a. 3 Tooth Rule, coarse for wood, medium for aluminum, and fine for steel.

b. Cutting round stock? Use a vise!

c. Lubrication? Use wax!

d. No curved cuts , they require a special technique. Contact the staff before cutting curves.

3. Cut the Part

a. Blade Guard Adjustment (1/4” above part).

b. Use a Push Stick (2” Rule – hands must be 2” from the blade at all times).

Select appropriate device to push with, talk about different devices such as push stick, wood block, universal work holding jaw, and vise for holding round or small pieces.

Push material against blade with constant pressure. Don’t have fingers or hands in front of blade.

c. Make the cuts!

4. Cleanup

Make sure saw blade has stopped rotating, use chip brush, lower blade guard before walking away.

5. Questions?

Drop Saw Operation

1. Introduction

a. Shop Safety Reminder

Wear safety glasses.

Avoid loose clothing; roll up sleeves, tie hair back, and no gloves.

Know location of On/Off switch - It’s different for each machine.

Never touch the blade while the blade is moving.

2” Rule – hands must be 2” from the blade at all times

b. Drop Saws in the Shop

Tannewitz (can cut angles!) When cutting angles place a piece of scrap wood under the piece to be cut, so as to not cut into the table.

The Tannewitz blade speed can be adjusted to high or low depending on the material.

Discovery Center, Cosen

The Cosen is for large stock, and can also cut angles.

c. Coolant

Coolant needs to be turned off for thin plastics, on for all other materials.

d. Parts of the Drop Saw

On/Off (saw turns itself off when it reaches the end of a cut).

Saw Blade – hydraulic, controlled by feed control knob. Feed slowly at first then marginally faster. Do not try to go too fast or the saw will bounce and cut very crooked!

Vise (coarse vs. fine adjustments).

Blade Guard (make sure that this is clear of the vise and table before cutting).

2. Setup

a. 3 Tooth Rule.

b. When clamping short pieces, the other end of the vise needs to be supported with an equal width piece to equalize clamping pressure. Angle iron needs to be clamped point up.

c. Can cut metals and plastics, not wood.

3. Cut the Part - Lift saw blade and lock with feed control knob. Insert material in vise, making sure the vise area is free of chips, lower blade slowly over piece and stop above part to check and adjust cut location, tighten vise making sure piece is securely clamped and also making sure to adjust blade guard. Turn on saw blade, adjust cutting fluid, and adjust drop feed. When cut is finished, lift blade, close feed knob, loosen vise, and remove piece. Make sure to clean machine after use. Leave blade down when finished.

4. Cleanup

Make sure saw blade has stopped completely. Use a chip brush/scoop.

Lower blade guard fully (hydraulic valve totally released) before walking away.

5. Questions?