

WILLOW VALLEY LAKES WOOD SHOP TRAINING GUIDE

GENERAL

We must assume that individuals do not know the basic operational and safety procedures for each machine on which they are being trained.

If a person has not used a particular machine within the past 3 months, they should refer to the "User section of the manual" for that machine before using and/or consult another proficient user if still uncertain.

Always follow the safety guidelines in the manual for the machine you are using.

1. SAW STOP TABLE SAW USER GUIDELINES

This saw has a computer module inside. The module is always active while the power toggle switch, (not to be confused with the motor paddle switch), is in the up (ON) position.

When the power toggle switch is on: The module is looking for two things.

- Blade rotation at ANY speed –even when the motor paddle switch is off.
- AND contact with the blade and human skin (or other electrically conductive objects-see manual.)

If the computer module sees BOTH of these conditions, then it will activate the brake cartridge, stopping the blade virtually instantly & ruining the blade & ruining the braking module. If this happens, YOU are responsible for the cost of a replacement blade and postage to repair the module.

- Blade height should be set to 1/8 in to 1/2 in above work piece.
- Push toggle switch to the "ON" position. Wait until the initialization process has completed (Status Indicator light will display a green light in the left-hand position.) It is now safe to start the saw blade by pulling out the red paddle switch.
- Never start the saw when the blade is in contact with the work piece.
- Blade has a coast time (indicated by system status code lights)
- For system status codes, refer to the chart hanging on the saw table.
- Make sure the kick back jaws are down when making rip cuts.
- Always use a push stick when your hand might come within 6 in. of the blade.
- Always use the blade guard except for rabbet cuts, dado cuts or extremely narrow cuts.
- See manual when setting saw in "Bypass" Mode. Remember when you stop the saw in this mode, it automatically returns to "Safety" Mode.
- Use "Bypass" Mode when cutting materials listed on the chart hanging on the saw table; or if you are not sure of the material's composition.

- Rip Cutting: cutting with the grain - Never make rip cuts "free-hand" ; Use the rip fence!: do not use the miter gauge.
- Cross Cutting: cutting across the grain- Never make cuts free-hand; Use the miter gauge; move rip fence out of the way.
- Push red paddle switch in to stop the blade rotation.
- Push the toggle switch to the "OFF" position when finished cutting.
- Please clean up after yourself.

2. POWERMATIC 15 INCH BANDSAW

The Powermatic 15-inch Bandsaw should be used mainly for resawing with the 1-inch-wide blade. If you desire to saw larger material than the 14 in. Powermatic Bandsaw can handle, or cut rounded surfaces such as bowls, install a 3/8 in wide blade on the saw. Do not EVER cut rounded surfaces with this saw using the 1 in. wide blade, as it will ruin this blade for resawing purposes.

- To start this saw, first make sure the tension bar on the back side of the upper blade housing of the saw is in the tension lock position (parallel to the floor), and locks in place.
- Make sure there are no objects touching the saw blade.
- Press the lighted "Start" button located in the center of the large Red "Stop" button.
- Make sure the Oneida dust collection system starts and the blast gate on the wall behind the saw opens.
- The upper blade housing features a small window through which you can ensure that the tension is set properly for the blade width.
- Keep the blade guide at NO MORE THAN 3/4 in above the wood being cut.
- Be sure that the blade is in the guides with only the teeth in front of them.
- Be sure that the board being resawn is jointed FLAT, STRAIGHT, SQUARE, AND PLANED.
- Always keep your hands away from the moving blade.
- To stop the blade, press the round red "Stop" button. The saw will take approximately 30 seconds to come to a complete stop. In case of an emergency, and you need to stop the blade quickly, step on the brake pedal on the lower right side of the saw housing. This should only be used in an emergency, as it will tend to cause damage over a long period of time.
- Release the tension on the blade by lowering the tension bar to the downward (vertical) position.
- Never leave the saw before the blade comes to a complete stop.
- Lower the blade guide to a position close to the table top. This will remind the next user to properly adjust the guide height.
- Please clean up after yourself.

3. POWERMATIC 14 INCH BANDSAW

The 14 in. Powermatic Bandsaw should be used mainly for all cuts other than resawing. A six inch riser block kit was provided with the saw to increase the upper blade guide assembly groma table height of six inches to twelve inches. This would only be needed when resawing a work piece wider than six inches. It is recommended that all resawing be done on the 15 inch Powermatic Bandsaw.

- Prior to starting the saw, make sure the blade is adjusted correctly for tension and tracking and the upper and lower guide bearings are set in proper relation to the blade.
- Adjust the guide post so that the bearings are just about 3/16 in. above the workpiece.
- If making a rip cut (cutting with the grain) set the fence in position and lock it into the guide rail. Do not use the miter gauge for rip cuts.
- If crosscutting, move the fence safely out of the way and insert the miter gauge in the desired table slot.
- Turn on the saw and allow time for the machine to reach full speed.
- Whenever possible use a push stick of some type to feed the stock into the blade to keep your hands at a safe distance from the blade.
- Place the straightened edge of the work piece against the fence for a rip cut or against the miter gauge for a cross cut.
- When cutting, do not overfeed the blade; overfeeding will reduce blade life and may cause the blade to break.
- Never use the fence in conjunction with the miter gauge.
- Always use a push stick when cutting thin pieces, or if your hand may possibly come within six inches of the workpiece.
- Make a relief cut whenever possible. A relief cut is an extra cut made through the waste portion of a workpiece up to the layout line. You can then cut along the layout line and the waste portion will drop off preventing pinching at the back edge of the blade in the cut.
- Turn off the machine and release the tension on the blade by moving the tension bar to the vertically down position. Lower the blade guide to a position near the top of the table. This will remind the next user to properly adjust the guide height.
- Please clean up after yourself.

JET OSCILLATING DRUM SANDER

- To start a cut without cutting too deep on the first run, slide the workpiece into the input side of the sander and lower the drum until it just barely touches workpiece. Then remove it to a position just short of touching the drum. The depth of cut is controlled by the height

adjustment hand wheel. One full rotation of the hand wheel will move the drum approximately 1 inch.

- Select linear or oscillating sanding mode. The oscillator switch should be pulled out to select the linear mode. If it has been in the oscillating mode, the switch will be in the full in position. If in that position, rotate it to position the drumhead to a centrally located position. Do not change sanding modes with the sander running! If you are running in oscillation mode, set the belt to maximum feed rate. In linear mode, set the belt to a slower feed rate.
- It may take some experimenting to determine the proper depth of cut, giving variables of grit, wood and feed rate. First practice on a scrap of wood.
- A faster feed rate allows faster sanding but fewer revolutions of the drum per inch of sanding. A slower feed rate provides more revolutions of the drum per inch of sanding which allows a greater depth of cut and smoother sanding.
- Start the drum, then start the conveyor belt. Do not start the drum while the work piece is in contact with the drum!
- Feed the work piece into the sander holding it on the conveyor belt until the work piece is halfway through the sander, then position yourself on the output side to control the board as it exits.
- When edge sanding, make sure that the work piece edges have been ripped to the correct angle as the sander will mimic the opposite edge. When edge sanding stock that is less than 5 in. wide or more than 2 in. high, it is good practice to stack and clamp several pieces together to prevent them from slipping or tipping on the conveyor belt.
- For tips on maximum performance, review the appropriate sections of the Operating Instructions and Parts Manual.
- Stop the sander by first stopping the drum rotation; then stop the conveyor belt.

Clean the sander when you have finished!

- Run the drum and use a rubber eraser to remove any sawdust adhering to the drum.
- Vacuum the belt while running it at maximum speed.
- Vacuum the interior of the unit around the drum.
- In other words, clean up after yourself.

BRIDGEWOOD 15 IN. WOOD PLANER TRAINING

The first step is to become familiar with all the controls on the Planer.

1. On/Off switch located on the left front.
2. Column locking knobs - two black knobs located on the left side of the bed.
3. Bed raising and lowering handwheel located on the right side of the planer.
4. Feed speed control knob mounted below the hand wheel on the right side of the planer.

Before turning on the power:

- Set the depth of cut.
- Loosen the column locking knobs.
- Lower the planer bed by rotating the handwheel counter-clockwise until the board will fit under the infeed roller.
- Raise the bed until the infeed roller just touches the board.
- Back the board out and raise the bed one turn of the handwheel.

Switch on the power and slowly feed the board into the planer.

The first pass may not remove much wood. Turn the handwheel one full turn counter-clockwise and feed the wood through again. One full turn of the handwheel raises or lowers the planer bed by almost 1/16 inch. For best performance do not plane more than 1/8 inch of wood at a time. Make repeated cuts of 1/8 inch until the stock reaches very near the desired thickness. Then turn the handwheel 1/3 turn to take a finishing cut.

To make sure the planer holds its setting, tighten both holding knobs at the front and rear columns before feeding wood into planer. Remember to loosen the locking knobs before adjusting the handwheel to raise or lower the table.

The feed rollers can be adjusted to feed the wood at a rate of 20 feet per minute or 16 feet per minute using the feed speed control knob. Pull the control knob fully **out** for 20 FPM, and push fully **in** for 16 FPM. The intermediate position will set the mechanism to idle. Hardwood should be planed at a slower speed than soft wood. Adjust the feed speed only when the planer is running, but not under load.

When finished, turn off the power and clean up after yourself.

POWERMATIC JOINTER

The key to good training on the jointer involves safety tips as this machine can do some serious damage if not used properly.

- Never surface stock less than 12 in. long or 3 in. wide or 3 in. without a hold down push block.
- When working a piece of wood on the jointer, never allow the hands to be closer than 3 in. to the cutter head. When the lead hand approaches the cutter head, lift that hand and place it in a position beyond the cutter knife.
- Never apply pressure to stock directly over the cutter head. This may result in the stock tipping into the cutter head along with the operator's fingers.
- Before attempting to joint, or plane, each workpiece must be carefully examined for stock condition and grain orientation. The grain must run in the same direction you are cutting. When planing swirly grained wood or burls, use a much shallower depth of cut.

Surfacing:

This is the planing of the side surface of a board. Adjust depth of cut. It is better to make cuts of approximately 1/32 inc. for hardwoods and 1/16 in. for softwood. Make several passes if necessary to obtain proper stock removal.

- Never surface pieces shorter than 12 in. or thinner than 3/8 in without the use of a special work holding fixture.
- Never surface pieces thinner than 3 in. without the use of a push block. See the operating manual for the proper types of push blocks to use when surfacing various sizes of wood.
- When surfacing long stock, place the push block near the front of piece and start feeding wood with the right hand until the guard has opened and the cut is started. Place a second push block near the rear of the infeed table and continue feeding stock using the hand-over-hand method.
- When the stock is longer than twice the length of the infeed and outfeed table, use a helper.

Jointing (edging):

- Never edge a board that is less than 3 in. wide, less than X in. thick, or less than 12 in. long without a push block.
- When edging long pieces, the same procedures apply for surfacing long pieces. When the workpiece is twice the length of the jointer infeed or outfeed table, use an infeed or outfeed support.
- Begin by feeding stock with your right hand and apply pressure to the front of the stock with a push block.
- When edging, make cuts of approximately 1/16 in. for hardwood and 1/8 in. for softwood.
- When edging wood wider than 3 in., lap your fingers over the top of the wood, extending them over the fence to prevent kickback. Keep the stock firmly against the fence.
- Clean up after yourself.

See the Operations Manual for beveling.

GRIZZLY 16" X 42" Variable Speed WOOD LATHE (Manuel 6 in library)

Safety First

- Be trained on the machine before using it.
- Always use approved safety glasses
- Wear proper apparel, (no loose clothing, gloves, neckties, rings, or jewelry).
- Wear protective hair covering for long hair and non-slip footwear.
- Keep children and visitors away.
- Always disconnect the power before servicing
- Never leave the machine running, turn it off if you are leaving
- Do not force the machine, keep the machine maintained and the chisels sharp
- Many Machines can eject workpieces toward the operator, Know and avoid conditions that can cause kickback. (See the manual pages 8 through 10)

Operations

- **Headstock:** Motor and control unit to the left. This can be positioned anywhere along the Bed and swiveled (turned) 360 degrees
- **Tailstock:** Unit to the right. This can be positioned anywhere along the bed
- **Adjusting Tool Rest:** Set 1/2" above the center line of the work piece and 1/4" from work piece
- **Installing and removing the Headstock Center:** Use the knockout tool to remove. Long rod.
- **Installing and removing Tailstock Center:** Loosen the quill lock (handle at the rear of the tailstock) and rotate the handwheel.
- **Headstock Faceplate:** Depress the spindle lock and screw on the faceplate. Tighten the three set screws of the faceplate to secure it to the spindle.

For sections below, please refer to the Grizzly Manual for Model G0632 either online at:

https://cdn0.grizzly.com/manuals/g0632_m.pdf

Or in the woodshop library, Manual #6

- **Changing speed ranges:** see Figure 28 for recommendations.
- **Selection Turning tools:** see Figures, 35, 36, 37, 38.
- **Spindle Turning:** see Figures, 39, 40 , 41.
- **Faceplate Turning:** Secure workpiece to faceplate. Figure 44
- **Outboard Turning:** The Headstock should be set at 90 degrees. Figure 46
- **Sanding/Finishing:** can be done before removing the work, at a slow speed.
- **Jaw Chuck:** "a must have" for serious wood turners . Used mostly for round work , requires a round wood clamp block to the back of the workpiece .
- **The lathe motor** has forward and reverse. It can be used in reverse for inside cutting and for sanding.

If you have any questions, **ASK A WOODWORKER KNOWLEDGEABLE WITH THE MACHINE!**

For complete instructions, **REFER TO OWNER'S MANUAL # 6 IN THE LIBRARY**

OR online at: https://cdn0.grizzly.com/manuals/g0632_m.pdf

PLEASE CLEAN UP AFTER YOURSELF!