



# Powermatic 20” Thickness Planer Safety Rules and Operating Procedures

The thickness planer is used to make one side of a board parallel to the other side of the board. If the first side was surfaced using the jointer and is straight and true, the planer will make the other side straight, true and parallel to the first side. However, if the first side is twisted, the planer will duplicate the twist. If the first side is cupped, the planer will not be able to produce a uniform surface. To avoid accidents, the following operational safety rules must be observed by everyone using the Powermatic planer. Failure to follow the safety rules will result in a loss of shop privileges.

## **Thickness Planer Safety Rules:**

1. Follow the 3” rule; always keep fingers at least 3” from the opening where the boards are fed. Your hand could get caught by the feed roller and be drawn into the feed roller or cutterhead causing serious injury or amputation.
2. Never place your hand into the thickness planer infeed or outfeed opening.
3. Do not hold the boards so that you have fingers on the bottom side of the board when feeding the board into the thickness planer. Your fingers could be caught between the board and the table and cause serious damage to them.
4. Plane only boards that have been joined and surfaced on the jointer. All boards must be flat, unless a Shop Leader approved jig is used.
5. Keep a balanced stance at the planer.
6. Never clear small pieces from the infeed or outfeed tables with your hand while the thickness planer is running. Use a brush, or stop the thickness planer.

## **Start with a Risk Assessment to ensure a safe work area:**

1. A three foot perimeter around the thickness planer should be kept clear of people, debris and sawdust that might impair traction or footing to avoid slips and falls and to provide easy access to both the front and rear of the machine. However, a helper may assist with supporting long boards and in the removal of boards from the outfeed table.

2. Safety glasses with side shields and hearing protection must be worn.
3. Remove loose fitting clothing, jewelry, and tie back long hair.
4. Give the work your undivided attention.

### **Operational Safety Rules:**

1. Approach your work in the CLUB Shop and on the thickness planer with a safe attitude!
2. In order to minimize the difficulty of handling large pieces of stock, cut the stock into 2' – 4' lengths if longer lengths are not required.
3. If long stock is to be planed, get someone to help support the stock at the outfeed end.
4. If possible, determine the grain direction of each piece and feed with the grain. If you are experiencing tearout, try feeding the boards in the other direction and/or reducing the depth of cut. Note that cuts less than 0.010" – 0.020" deep may not remove the indentations left by the feed roller.
5. The planer has two locking knobs that secure the table to the columns. The knobs should be tightened for, at a minimum, the final pass to minimize snipe and produce the best surface finish.
6. Turn on dust collection system. Failure to utilize the dust collector will result in a poor surface finish and plugged-up duct work.
7. Turn on the power and allow the planer to come to full speed. To avoid injury from kickback, stand to one side, never directly behind the stock. Feed the stock into the infeed rollers and, as soon as it takes hold, remove your hands from the stock. Never let your fingers get under the board as it approaches the infeed table.
8. Open the blast gate from the Powermatic dust collector before starting the thickness planer. Ensure that the Powermatic dust collector started and is running. Close the blast gate when you are finished using the planer if no one else is using it.
9. Do not plane boards with loose knots, nails or any foreign material on the surface.
10. Do not try to plane boards that are shorter than 12" long unless using a backup board longer than 12". Short boards can get caught in the planer and cause serious damage.
11. Do not remove more material per pass than 1/8" for boards up to 9" wide and 1/16" for boards over 9" wide.
12. Make all machine adjustments with the power off, except the depth of cut adjustments.
13. If the operator leaves the machine area for any reason, the planer must be turned "off" and the cutterhead must come to a complete stop before departing.
14. If the planer is bogging down, stop the planer. Then lower the bed all the way. LOTO the planer and wax the tables with Johnson's Paste Wax. This will reduce the friction between the board and the bed and needs to be done periodically. Restart the planer and take lighter cuts.
15. **WARNING!** If the thickness planer makes a cracking or popping noise, shut it down immediately. This may indicate that the board is broken or stuck in the unit. Notify the Shop Leader so that he can check the planer for damage.

16. If the planner does not grab the board and feed it into the planner, push the end of the board side to side while pushing the board into the planer. This will usually cause the board to feed.
17. If the work is too large for one person to handle, get help holding the stock or use infeed or outfeed supports.
18. Lockout/Tagout the thickness planer before changing the cutterhead's carbide inserts or performing any other maintenance operation. All carbide cutter replacements must be done under the direction of the Shop Leader.
19. When you have finished your use of the thickness planer, push both the stop button and close the blast gate to the Powermatic dust collector. Then cleanup the area.
20. Never clean the planer with the power "on" and never use hands to clear sawdust and debris; use a brush.

