



Allana Lippman
2010



Mr. Barron



Paige Seacrest
2009

Tilting Arbor Table Saw Operating Instructions & Safety Manual



Table Saw

Powermatic

Model #66

Serial # 96662272

- If you are not thoroughly familiar with the operations of the table saw, obtain advice from Mr. Barron. Have him help you perform your operation until you feel safe to perform it without assistance.
- The table saw can “**NOT**” be used by a single person. The operator needs a tail off person to help and assist the cuts being made! NO exceptions----- EVER
- Never rip pieces shorter than 10”
- Do not crosscut pieces shorter than 6”
- For work shorter than 12” or narrower than 6” use a push stick, or push block.



Power Shut Off

Circular Saw Operation Instructions

1. Locate all of the controls, adjustments, and accessories. Such as the miter gauge and rip fence. ****SHOP RULE**** 4" Margin of Safety- never let any body part get within 4" of the revolving saw blade
2. Kickbacks are dangerous. Listed below are the ways kickbacks can be prevented
 - a. Confining the cutoff piece when crosscutting or ripping.
 - b. Releasing the work piece before completing the operation, or not pushing the work piece all the way past the saw blade.

Avoid the following Conditions:

- c. Applying feed force in ripping to the cutoff section of the work piece, instead of the section between the saw blade and fence. Use push sticks or push blocks for narrow, thin, or short work.
3. *To Minimize or prevent injury from kickbacks the following guidelines **MUST BE FOLLOWED:***
 - a. Do not use the miter gauge and rip fence in the same **operation** unless provision is made by use of a facing board on the fence so as to allow the cutoff section of the work piece to come free before the next cut is started.
 - b. Keep your face and body out of line of saw blade.
 - c. Support the work properly and hold it firmly against the fence. Use a push stick or block when ripping short, narrow, thin work.
 - d. Never use the fence as a length **stop** when crosscutting.



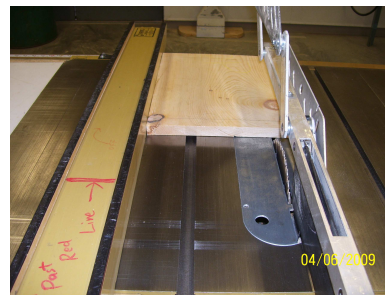
STOP SWITCH



**Proper use of saw: comfortable
Position & stance, Out of
line of blade**



Thin Rip Cut



Rip Cut

Ripping

1. Ripping is a sawing process in which the work piece is fed with the grain into the saw blade using the fence both as a guide and for a positioning device, to ensure the desired width of a cut.
2. **CAUTION:** Before starting a ripping cut, be sure the fence is clamped securely and properly aligned.
3. Never rip free and/or use the miter gauge in combination with the fence.
4. Never rip work pieces shorter than (10 inches) the saw blade diameter without a push stick.
5. Never remove the cutoff piece with the saw blade rotating.
6. Always use the saw guard, splitter & kickback pawls and make sure the splitter is properly aligned.
7. To cut properly, the board must make good contact with the table.
8. In ripping, use one hand to hold the board down and against the fence or fixture, and the other to push it into the blade between the blade and fence.
9. Never push in a location such that the pushing hand is in line with the blade.
10. Move the hand serving as a hold down, a safe distance from the blade as the cut nears completion.
11. For very narrow ripping, use an **auxiliary** fence.
12. Have the blade extend about **1/8"** above the top of the work piece. Raising the blade above this point increases the risk of injury.



Push Back Past End of Blade



Blade height



Tail Off Person



Splitter & Blade guard

Re-Sawing

1. **Re-sawing** is a ripping operation, in which thick boards are cut into thinner ones. Narrow boards up to 3" can be re-sawed in one pass. Wider boards up to 6" must be re-sawed in two passes.
2. In re-sawing wider boards, adjust the blade height so as to overlap the two cuts by $\frac{1}{2}$ ". Too deep of a first cut can result in binding and kickbacks on the second cut. Always use the same side of the board against the fence for both cuts.



Re-Sawing



Re-Saw $\frac{1}{2}$ Way At A Time



Crosscutting Preparation



Crosscutting

Crosscutting

1. Crosscutting is the sawing process where the work piece is fed cross grain into the saw blade using the **miter gauge** to support and position the work piece.
2. Hold the work piece firmly against the table and back against the miter gauge.
3. Crosscutting should never be done free-hand nor should the fence be used as an end stop unless an auxiliary block is clamped to the front of the blade area, such that the cutoff piece comes free of the block before cutting starts.
4. When using the miter gauge, the work piece must be held firmly and advanced smoothly at a slow rate.



Bevel Cutting



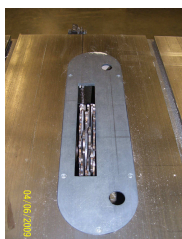
Miter Cutting

Bevel and Miter Operations

1. A **bevel cut** is a special type of operation where the saw blade is tilted at an angle, less than 90 degree to the table top.
2. Crosscuts made at an angle to the edge of the work piece are called miters

Dado Cutting

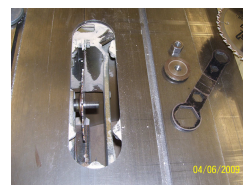
1. Dadoing is cutting a wide groove into a work piece or cutting a rabbet along the edge of a work piece.
2. Do not use the standard table insert for dadoing operations
3. The guard, splitter and anti-kickback pawls supplied with the saw should be used for all cutting operations where they can be used.
 - a. When completing operations where the supplied guard cannot be used, as in some dadoing operations, alternative safety precautions should be taken.
 - b. These include: push sticks, feather boards, filler pieces, fixtures, jigs, and any other appropriate device that can be utilized to keep operators' hands away from the blade.
 - c. Upon completion of the operation requiring removal of the guard, the entire guard assembly must be placed back on the machine in its proper working order.
 - d. Never operate the saw without the guard, splitter and anti-kickback pawls for operations where they can be used.
 - e. Never use a dado head in a tilted position.



Dado Set & Throat Plate



Dado Set



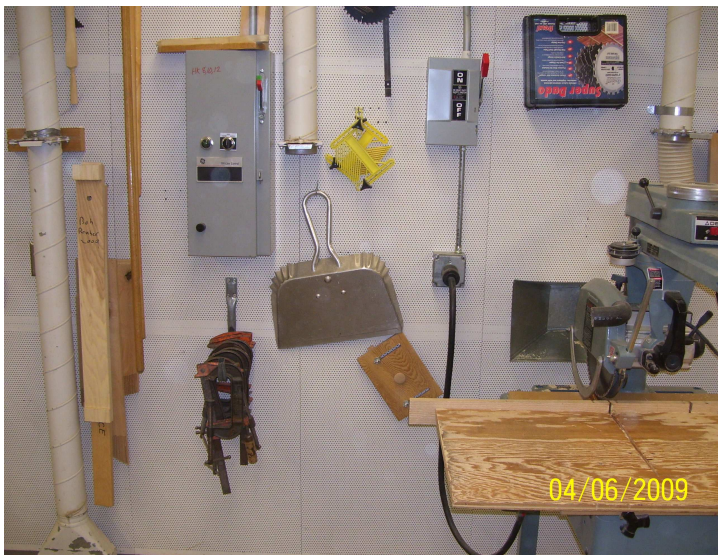
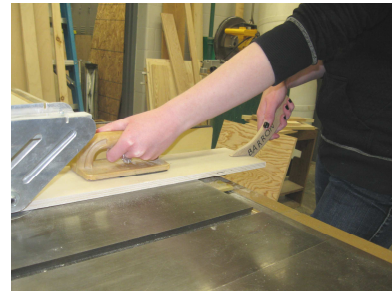
**Wrench
Washer Nut**



Cutters & Chippers

Safety Devices

1. Push Stick
2. Feather Board
3. Filler Piece
 - a. A **filler piece** is necessary for narrow ripping, and permits the guard to remain on the machine.
 - b. It also provides space for the use of a push stick.



Accessories Wall



Filler Piece



Splitter Guard



Power Shut Off