

Words of Wisdom from the Shop

This is basically a compilation of "lessons learned", opinions, and FAQ's aimed primarily at novice woodworkers on shop related matters I have come to over the past few years. How "wise" these words are may be a matter of debate.

Woodworking machines are dangerous even when operated properly. If for any reason you believe a procedure is not as safe as you think it should be, think of another safer way to do it.

1. Your shop itself is the most important tool, having space to move about and assemble projects is very important. Also being able to walk up and use your saw, workbench, and tool cabinet unhindered without having to plug it in or clean it off first should be a primary goal. It would be nice if that is true of your other equipment as well but it's especially important with these; consider this the Prime Directive.

2. I don't think you can have too many overhead lights, my shop (which is under 450 square feet) has eight dual 40w fluorescent fixtures and six 100w halogen bulbs. Also paint all your walls and everything else you can white.

3. In a typical wood shop, the tablesaw is the core woodworking tool, the quality and usability of this tool is proportional to the potential quality of everything produced from it; you cannot buy a tablesaw that is too good.

4. The miter gauge that comes with a saw is almost worthless. Don't waste your time trying to improve it or even make extended fences for it. Either buy one of the cheaper aftermarket miter gauges like the Incra, Osborne, or the Dubby crosscut jig or a true sliding table.

5. Don't spend over \$150 on an aftermarket miter gauge. I'll guess that 97% of ALL of your crosscuts will be at 90 degrees, 2% might be at 45 degrees and 1% at some other specific matching angle. While the ability to cut an accurate, repeatable angle other than 90 degrees is desirable, unless you have some special situation that requires it, you will not use the capability these sooped up miter gauges advertise.

6. Unless you have or will be buying a better miter gauge or sliding table for the saw, the first jig made in the shop should be a small 90 degree crosscut sled with a sliding flip stop than can be set and directly read from a tape measure on the jig.

7. Answer this question for yourself, "how am I going to lift, move and cut, a 4x8 sheet of plywood"? Cutting a 90-lb sheet of plywood on a tablesaw by yourself is at best comical and could be dangerous as well. Cutting thin plywood is also a challenge. If I were starting from scratch, I would try and think "outside the box" a little here; one idea would be to use a panel saw of some sort.

8. When building furniture you will benefit from a jointer and planer unless you learn how to properly dress stock with hand tools. The wood you buy is neither straight, flat, or of consistent thickness. When cutting joints, it is highly beneficial to work with true stock; it is also far less frustrating. These tools also make it easier to build square jigs which in turn will make for better fitting joinery. If you are going to build furniture you should be using these tools.

9. You need to have an adequate stock of sandpaper, screws, glue, and other similar items on-hand all the time. You don't want to have to delay an assembly just because you didn't have four 2" screws.

10. Learn how to sharpen your tools properly, you don't need to spend a lot of money on a machine to do it but if that's what it takes...

11. Don't nail or screw anything to your shop walls if at all possible. Instead, use an angled cleat system run around the perimeter. You can hang cabinets up on them, peg board, jigs or jig holders, almost anything and you can re-arrange it later if you want.

12. Put all your tools and anything else that sits on the floor on a mobile base except for your main workbench. It makes the shop easier to clean (or hose out) and you can rearrange the layout later or create more open space as needed.

13. You can store a lot more in drawers than you can behind doors. If possible, convert any wasted space under or around machines into drawer cabinets, you can increase the available storage space dramatically.

14. Your shop cannot be too organized, having a place for everything and everything in its place is an investment in effort that will pay for itself many times over. Similarly, don't store seldom used items in the shop if you have some other place to do so.

15. Compressed air on demand is almost as useful as electricity, not having to listen to the air compressor pump up would be nice as well, try and remote-locate the air supply.

16. Box joints are almost as nice as dovetails and a lot easier to cut correctly as long as you use a router and a jig that does NOT use a registration pin. Either a comb-type jig or a positioning machine like the Incra is the way to go.

17. The Leigh dovetail jig is the way to go for cutting dovetail joints unless you want to cut them by hand instead. The LittleRat will do even more for a little more cost. Both these and a couple others create dovetails in the proper scale to use useful for furniture. The cheap "cookie cutter" jigs work but not as well.

18. If you only have one good saw blade, make it a Forrest WWII.

19. Oversize your electrical service and put outlets every 4ft or so on the wall. Make sure the outlets are high enough on the wall that you can get to them if there is a sheet of plywood (48" high) leaning against the wall.

20. It is worth it to spend the extra money on high quality router bits for profiles that are often used like a 1/4" round-over. For less used profiles, cheaper bits will serve just as well.

21. Use a dust collector, a small 650cfm unit will work okay, a 2hp unit is MUCH better. If you don't use a cyclone or separator of some kind, the DC will fill up so quickly you'll spend too much time cleaning your DC bags.

22. There is more than one type of woodworking glue, learn what they are, and when to use them.

23. Avoid using wood filler to fix gouges or other large defects / mistakes, it always shows. Use a strip of wood plugged or scarfed in instead, it usually isn't noticed.

24. Get a good quality square, straightedge, and feeler gauges to setup and check your machines with. Dial indicators are nice for setting machines up too, two dial indicators can tell you a lot more.

25. Don't go out and buy any jig or gadget unless you KNOW you will use it on your next project.

26. If you are inexperienced, don't waste your time investigating the purchase of off-brand power tools; you don't know enough to ask the right questions and any discussion group answers you get about them will most likely add to your confusion. Use this as a rule of thumb, if it isn't in the Tool Crib catalog, don't consider buying it. That is not to say that there aren't other good power tools out there but there are worse things that can happen to you than spending \$30 or \$300 too much for a tool.

27. Take the information in magazine tool reviews with a grain of salt. Quite often they contain small errors and large omissions. Additionally, consider this, the editors are not going to risk their revenue stream by angering their advertisers with negative reviews. The evaluations themselves are sometimes flawed and conducted by people who are not well versed in measurement techniques or testing standards. This should not be surprising, they are writers, not testers.

28. Take the tool information from woodworking discussion groups (and the web in general) with an even bigger grain of salt. The primary benefit of these sources is that you can obtain a wide variety of views that may otherwise be unobtainable. You can also become quite confused or misguided, you will have to learn to separate the wheat from the chaff yourself.

29. You will need about eight square feet of table space to set odds & ends down on in the shop. If you don't have this then you will use your saw or workbench and violate the Prime Directive above.

30. Have as few places in the shop for dust to settle or accumulate on or in as possible.

31. Don't waste any money buying "plywood" sized router bits. There is enough variation in plywood that you won't be able to use them for that purpose anyway.

32. A pocket hole jig should be one of the first ten tools you buy if you are into "power tool" woodworking. Although it's probably frowned upon by elitists, it will enable a novice to build projects with far fewer error inducing machine operations than would otherwise be possible. Fewer mistakes in the shop equates to more fulfillment which is probably one reason you are there anyway.

I also highly recommend these books:

Understanding Finishing by Bob Flexner
The Woodshop Book by Scott Landis
Woodworking With The Router by Hylton/Matlack