

# Setting Up Big Machines

Wrangle stationary tools without breaking your back

BY CHRIS REID

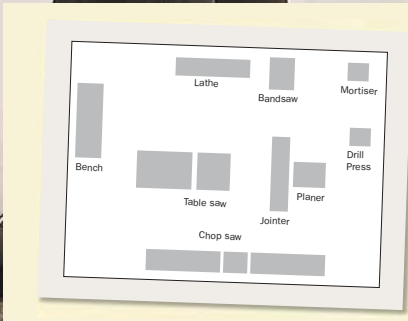


Whether it's taking delivery of your first cabinet saw, upgrading to a bigger planer, or splurging for that floor-standing drill press—or all three—many of us can identify with the joy of getting a big power tool. There's just one huge, heavy, potentially hernia-inducing hill to climb before you get to enjoy your new acquisition: actually moving the thing into place. Because with bigger tools often comes bigger strain.

While I can't help you pick up and move the tool, I can give you tips that will make it easier. (Sometimes the tips involve getting help from a buddy.) The folks at *Fine Woodworking* recently got their new shop off the ground, which meant uncrating, locating, and setting up several large machines. It was a great opportunity to document some of my best practices. The days were long, but thanks to thinking ahead, we knocked out the work quickly and without injury. Whether you're acquiring one new tool or several, this article will help you manage as well as we did.

## Ready the space

The new machine will need a place to go. Depending on your shop, this could mean a few things. If you're replacing a tool with a similar one, you may simply swap one for the other. If you're getting an entirely new machine, you'll need to figure out where to place it. Either way, determine the location before the machine arrives and make a path to it. Most likely, the machine will come in a box or crate, so make the path big enough for the whole package. You may be able to get the crate dimensions from the manufacturer or shipper. If there's already a tool in that spot, get it out of the way as soon as you can.



## START WITH A PLAN

Stationary power tools are big, heavy, cumbersome beasts, so you want to minimize the variables before one even arrives. Whether you're getting one tool or several, map out your space to understand workflow and anticipate where pre-existing machines may need to move.

# Unpacking



**Move the box near the tool's final destination.** A box of parts is more organized and quicker to move than individual parts. Moving the whole thing will spare you trips across the shop and possibly lost parts.

If you're getting more than one machine or adding one that will lead to you reorganizing your shop, I recommend mapping out the space. This was crucial in the *FWW* shop, where we used paper drawings to approximate a scaled layout, and then labeled the locations with masking tape. The tape may seem like overkill, but consider it future-proofing the plan when you have multiple 1,000-lb. crates to move.

## Get it close

Speaking of moving, one of my biggest tips is to get the crate as close as possible to the machine's final home before unpacking it. With heavy components like cast-iron tables and big motors, the fewer times you have to pick up and put down the pieces, the better. Plus, a square crate may be easier to move around than a bunch of loose components. If you can, ask the delivery person to place it right where you want it. This will spare your back, and the delivery person will likely be better equipped to haul heavy machinery anyway.

If you do have to move the crate, fingers crossed you have a pallet jack, or access to one. You can rent one, but the jacks themselves are heavy and awkward to move, so be prepared if you need to pick it up, bring it home, and return it yourself. The more you have to move, though, the more worthwhile the pallet jack will be.



**Rough-and-ready crates break down quickly.** Prying out nails or backing out screws is all it takes to disassemble a crate, but be prepared for the walls of the crate to fall away.



**Call in favors for the heavy lifts.** Don't try to be a superhero. Ask a neighbor or buddy for help when necessary and coordinate how you'll move the tool or part. Otherwise, you risk hurting yourself or damaging the equipment.

# Assembly



**Lay out all the parts in an organized fashion.** Keep the parts together and in plain sight—whether a bag of screws or a cast-iron table. This will minimize headaches as you assemble the machine.

TIP



**Take inventory and read the directions.** With all the parts laid out, check against the parts list to be sure you have received everything. Next, read the assembly steps a few times to make sure you have a solid grasp before diving in. These are complex machines; winging it doesn't make sense.



**Degrease before assembly.** Components may have a layer of rust-preventing grease to protect them from moisture during storage and shipping. It's smart to clean this off before putting the machine together, when surfaces may be tricky to reach. Use a degreaser, and apply a dry lubricant after cleaning.

Another option is using black iron pipe as rollers. This old technique is certainly slower, but it works great in a pinch. To get the crate onto the rollers, I recommend a long pipe as a stout lever.

If you wind up having to move a machine yourself without a pallet jack, consider unpacking the crate and carrying the parts to their final location. It's not my first choice, but it's a one-time hassle. Please though, lift with your knees.

## Unpack, organize, and clean

Most stationary tools won't come fully assembled. You'll likely need to unpack and assemble some individual parts, like tables, motors, cranks, and knobs, as well as odds and ends. Where you



**Time to put it all together.** Keep the directions nearby so you can consult them easily, and heed any warnings, like those against overtightening screws on cast parts.

## Setting up



### PLANER

**Clean off the entire bed, reaching in to wipe the middle.** Raise the cutters all the way so you don't cut your arm. If your planer bed has rollers, be careful with the degreaser around them to avoid unknowingly spreading some onto them and having it end up on your boards.



**Align the infeed and outfeed tables with the bed.** Use a long straightedge to level the extension wings evenly with the table. Tighten the bolts, and then re-check to make sure the wings didn't move.

can, leave the heavier parts on elevated surfaces, like a workbench. They'll be easier to pick up again later. As for the small parts, especially the odds and ends, keep them organized. I lay out all the parts individually—not in a messy pile—and use the machine's manual to make sure everything's accounted for.

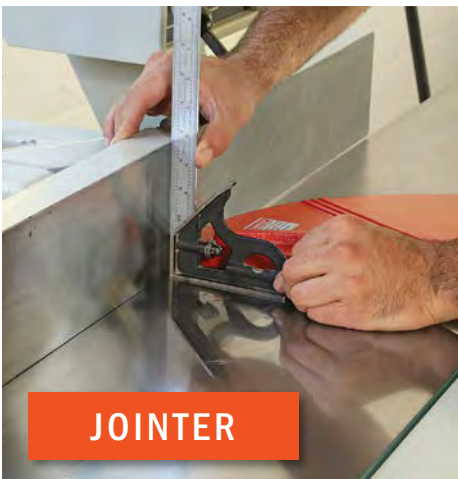
Speaking of heavy parts, consider a helping hand when uncrating, and maybe ask that person to hang around. For example, the motor for our drill press was both heavy and awkward. Getting the motor out of the box was one matter; raising it up to the tall post and sliding it down was another one. The planer arrived almost fully assembled, so I wasn't moving that alone. If the manufacturer's website has a PDF of the manual, read it ahead of delivery so you know what to expect in the box and whether you'll need a buddy.

Some components will likely have a layer of grease to protect them from moisture during storage and transit. It's easier to clean it off before you assemble the machines. Use a degreaser to remove it, and apply dry lubricant afterward.

### Assemble and tune

You're near the finish line, but don't rush things. Assembling and tuning can make or break your whole experience with the machine—or quite literally break a part.

This brings me to my most valuable tip: Before you start to put the tool together, read the directions, reread them, and keep them nearby during assembly. I understand the impulse to dive into putting parts together, but it's just not worth the risk with these expensive, complex machines. The wait for replacement for a



### JOINTER

**Square the fence to the table.** Check for square on the outfeed table a few inches past the blade to be sure the fence's 90° detent is accurate.



**Adjust the outfeed table.** Set the outfeed table so it's in line with the cutters or even a hair below them, and then make a test cut. If the cut tapers, the outfeed table is too high. If there's snipe, then it's too low. Joint an edge to verify your fence setting too.



## TABLE SAW

**Plenty of parts to keep track of.** From large extension wings to wheel handles to included Allen wrenches, a table saw has plenty of parts aside from the main tool. Lay these out in organized groups so like parts stay together.



**Add the extension wings, but don't fully tighten their bolts.** Loosely install the bolts to hold the wing in place so it's not flopping around during setup.



**Level each wing with the main table using a short straightedge.** Check each wing separately. Examine several places along the seam to make sure the table and wing are coplanar along their whole length. If you see light anywhere under the ruler, make an adjustment.



**Use a long straightedge to verify the wing adjustments.** It should span as much width of the top as possible. Again, check at a number of spots from front to back.

broken part is several days at the least. That will burst anyone's bubble, especially if the mistake was avoidable.

To tune the tool, you'll likely need a small tool kit. A reliable combination square, including its straightedge, will get you far. If you need to set up a big jointer or planer, however, invest in a quality long straightedge, as those tables span a long distance. John White's excellent "Jointer Tune-Up" (*FWW* #142) will help with your jointer. If you're setting up a new table saw, see Ellen Kaspern's "Tune Your Tablesaw" (*FWW* #265).

For safety's sake, keep the tool unplugged until you're finally ready to turn it on. □

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**Tune the rest of the saw.** A combination square works well when squaring the table to the blade. Next, square the fence to a miter slot.