

# setting up for the Perfect Cut

Getting accurate cuts starts with the basics — making sure your blade is in good condition and properly installed on your saw.

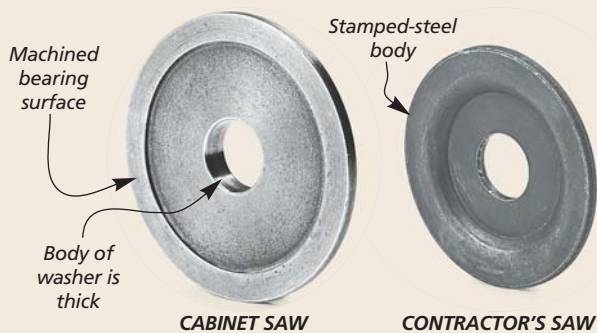
When it comes to getting accurate cuts on the table saw, most of us think about positioning the rip fence or adjusting the miter gauge so it's dead on. But before you even get to that point, you need to make sure that your saw blade is properly installed. And this includes checking to see that the parts hold-

ing the blade — the arbor, arbor nut, and flanges, are in top shape.

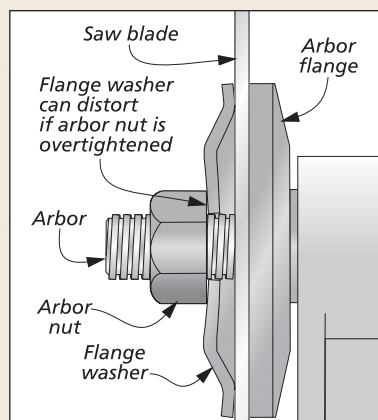
**INSTALLING THE BLADE.** Installing a blade on a table saw may seem like such a basic step that it hardly deserves mention. But believe it or not, the manner in which you install a saw blade can directly affect the accuracy of your cuts.

First, you want to make sure that your saw blade is clean. And I'm not just talking about the teeth of the blade. In this case, take a look at the body of the blade, especially the area around the arbor hole. Pitch and dirt can build up around this hole, preventing the blade from fitting up tightly against the arbor flange. This can create runout in the blade and cause it to "wobble." A spray-on blade cleaner can be used to remove the pitch buildup.

As you slip the blade onto the arbor of the saw, be careful not to strike the teeth of the blade against the throat opening of the saw. Carbide teeth are brittle and can chip easily. Slide the blade all the way onto the arbor and then slide the flange washer up against the blade.



▲ Cabinet saws typically have thick, machined flange washers (left). Less expensive saws have stamped washers like the one on the right.



Now thread the arbor nut on by hand until it's finger tight. You can finish tightening the nut with the arbor wrench. But don't overdo it, a quarter turn or so is all you need.

**HOW TIGHT?** You may be tempted to overtighten the arbor nut, just to make sure the blade doesn't accidentally come flying off when you turn the saw on. But this really isn't necessary. Because the arbor spins in the opposite direction of the threads, the arbor nut can't fly off while the saw is running. So all you need to do is snug the nut down securely.

With some saws, you can actually "overtighten" the arbor nut. Many contractor's saws have flange washers that are stamped out of sheet steel (see photos at lower left). If you overtighten the nut against one of these washers,

you risk distorting the washer (see drawing on opposite page). Overtightening the arbor nut can also make it difficult to remove when you want to change the blade.

**REMOVING THE BLADE.** Of course, what goes on must come off. And while removing a saw blade doesn't affect the accuracy of a cut, just remembering which way to turn the wrench can be confusing. If you have a right-tilt saw, the arbor will have a reverse thread. Left-tilt saws have standard (clockwise) threads. But all you have to remember is that no matter what kind of saw you're using, you always turn the wrench toward the front of the saw to loosen the arbor nut.

To remove the blade, I use a scrap of wood as a "brake" to prevent the blade from turning while

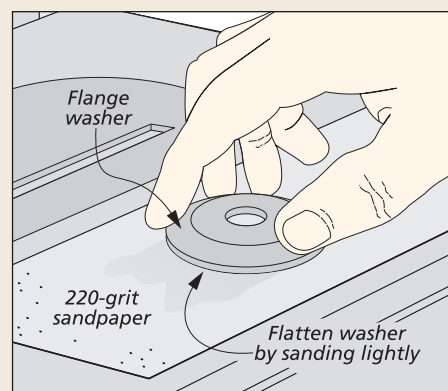
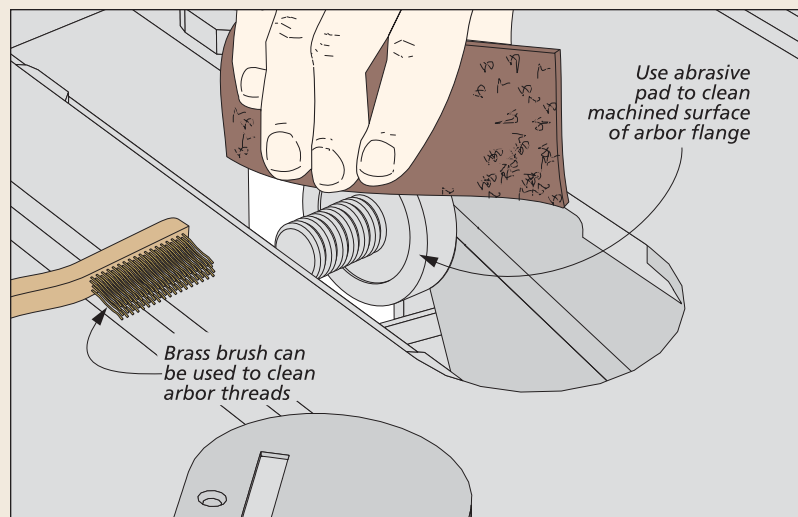
loosening the nut (see main photo on opposite page).

And if your table saw came equipped with a straight, stamped-steel wrench to remove the blade, you can give yourself a little more knuckle room by putting a slight bend in the end of the wrench.

**MAINTENANCE.** In order to maintain the accuracy of your table saw, it's a good idea to periodically check the condition of the arbor, arbor flange and the flange washer.

Feel the surface of both flanges for any burrs or nicks and carefully file them down if necessary. Remove any dirt or pitch buildup with an abrasive pad or some fine sandpaper as shown in the drawings below. A small, brass brush can be used to clean the threads on the arbor and the arbor nut.

While these things may seem like minor details, they really don't take much time. And they'll ensure that all your table saw cuts start off on the right foot. **W**



## Getting a Grip: Blade-Loc

We all know the drill. When it's time to change a saw blade, the first thing you do is to look around the shop floor for a block of wood to wedge against the blade while you loosen the arbor nut.

Now there's nothing wrong with this method. But sometimes, there just isn't a block of wood handy. And even if there is, you still have to worry about accidentally striking the blade with the arbor wrench. Or worse, scraping your

knuckles over the teeth of the blade. That's where the *Blade-Loc*, by *Bench Dog Tools*, comes in.

Made of a tough plastic, the *Blade-Loc* fits over the top of your saw blade, allowing you to safely place your hand over the blade and hold it securely in place while loosening or tightening the arbor nut, see photo at right.

The *Blade-Loc* is available through several woodworking tool catalogs. For sources, see page 49.



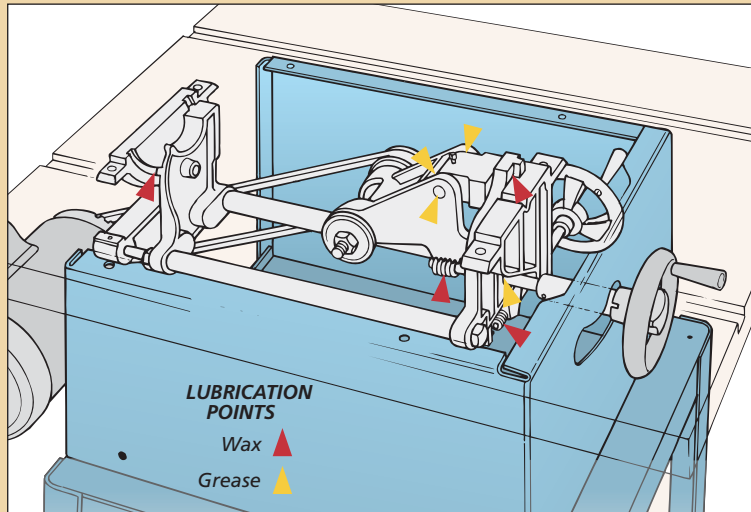
## PREVENTIVE MAINTENANCE

Even if everything is perfectly aligned, you may still find the controls on the saw a little hard to turn or operate. This is a sign that things need a little lubrication.

But you don't want to use just any type of lubricant. Petroleum-based greases and oils attract sawdust and wood chips like a magnet.

**DRY LUBRICANTS.** To keep the moving parts from caking up again, I try to use a dry lubricant like graphite or paste wax in as many areas as I can. They're less likely to attract dust and chips.

The drawing at right shows the areas that should be lubricated on a regular basis. Note: For table saws exposed to low temperatures (like in a garage) try



lubricating internal parts with white lithium grease.

**PROTECT THE TOP.** The inside of the table saw isn't the only area that needs lubrication and protection — so does the top. There are a couple basic steps I follow for maintaining a cast iron table top: remove the rust and dirt (refer to page 26) and then seal it with a protective top coat.

Sealing the surface isn't a lot of work (see photo at right), but it pays off in the long run. Besides protecting it from rust, it also lubricates the working area. This makes it easier to slide workpieces across the top as you work.



▲ Protecting a cast iron top from rust is a constant battle. Silicon-free aerosols like TopCote (shown above) or ordinary paste wax are one way to do this without contaminating a workpiece.

