

10-step tool tune-up: bandsaws



On some bandsaws, the wheels are too deep in the wheel housings to use a straightedge to align them. We modified a straight piece of wood to reach inside the housings.

Just as with your car, a few minutes of regular maintenance on your bandsaw can save you time and money over the long haul. The next time you change blades on your saw (or right after you've assembled your new saw), take ten minutes to ensure your tool's in tip-top shape and running true. Here's how.

1 Unplug the saw, then remove the blade as you normally would: Release blade tension, back out the blade guides and thrust bearings, and remove guards if necessary. Remove the guide blocks, and clean and square their contact surfaces, if necessary.

2 Clean the wheels. No matter how effective the machine's dust collection, some debris always gets mashed between the blade and tire. Hold 100-grit sandpaper against the surface of the tire and rotate the wheel by hand until the tire is residue-free. Brush or vacuum accumulated dust from inside the wheel housings.

3 Install and tension the blade. If the blade is brand new, first wipe it with a paper towel or cloth to remove any oil. Although most bandsaws have a tension indicator, we've always had better luck tensioning by hand (or by ear—more on that in a moment). With the upper guard 6" above the tabletop and the guide blocks reinstalled, push on the side of the blade with your pinky finger about 3" above the table. If the blade deflects more than 1/4" under moderate pressure, add more tension.

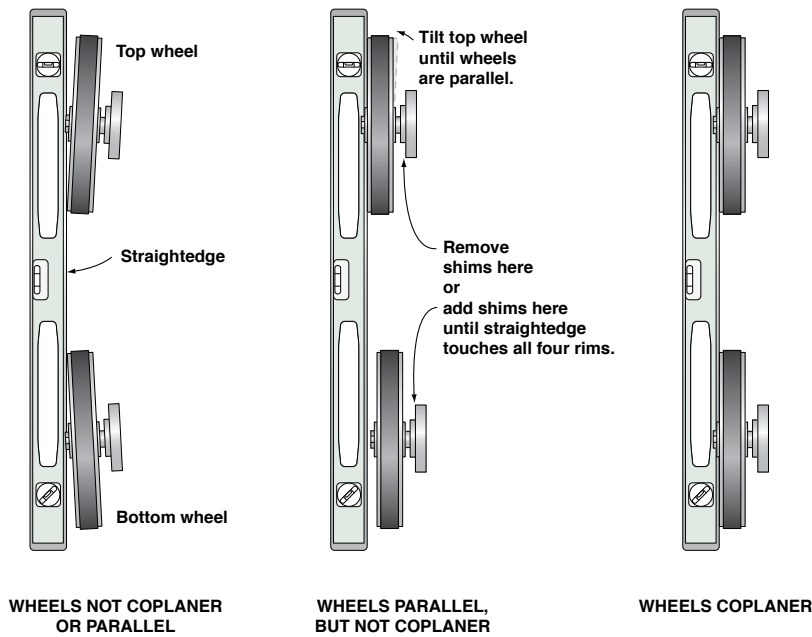
Some woodworkers pluck the bandsaw blade like a guitar string to set the tension. To do this, increase tension and keep plucking until the tone turns from a dull buzz into a clear tone. If the tone begins to deaden again, you've overtensioned the blade: Back it off until the blade sings again.

Once satisfied with the tension, make an index mark somewhere on the blade-tensioning mechanism. You want to be able to return to the same tension while you continue with your tune-up.

(By the way, any time you don't plan to use the saw for a few days, relax the blade tension. That will help extend the life of the wheels and wheel bearings.)

4 Align the wheels. It's not enough for the wheels to be parallel; they must also be on the same plane, a condition called "coplaner." To make them so, begin by removing the table from your saw (or at least tilting it as far

ALIGNING BANDSAW WHEELS



right as it will go.) Open or remove the wheel covers and lay a long straightedge against the rims of the wheels, as shown *above* or in the photo *opposite*, staying as close to the hubs as you can. If the straightedge touches all four edges of the wheel rims, skip to **Step 7**. If not, you'll need to align the wheels, as described in **Steps 5–6**.

5 Start by making the wheels parallel. With the straightedge against both wheels as in **Step 4**, tilt the top wheel until the straightedge contacts both rims of either wheel. (Follow the manufacturer's instructions for this adjustment.) Maintaining contact with that wheel, keep tilting the top wheel until the gap between the straightedge and the other wheel is parallel.

6 If the straightedge isn't touching all four rims at this point, you'll need to move one wheel in or out the distance of the gap. Again, follow the manufacturer's instructions for this adjustment. Some bandsaws require adding or removing shims behind the wheel to make them coplaner. Ordinary washers work fine for these shims, or make your own from sheet metal. If you had to remove the blade to shim the wheels, reinstall and retension it.

7 Now it's time to check the blade tracking. If you've done everything properly so far, little adjustment should be needed. Rotate the top wheel by hand, watching the blade's position on the tire surface. If the blade works its way to one edge or the other, tweak the wheel-

tilt slightly until it travels true. Don't worry about keeping the blade dead-center in the tire; it should just find a line and stick to it. Replace or close and secure the wheel covers.

8 Got a dollar? It's the cheapest feeler gauge you'll find. Fold the bill, place it between the upper thrust bearing and the back edge of the blade, as shown in the **Photo A**, and adjust the bearing location until it just holds the bill in place. Secure the bearing, and repeat for the lower thrust bearing.

9 Position the upper guide-block assembly so that the front edge of the blocks are just a whisker behind the blade's gullets (the valleys between the teeth). Repeat for the lower guide-block assembly.

Place one thickness of your dollar-bill feeler gauge between the upper left guide block and the blade, and adjust the block so that it pinches the bill between block and blade without deflecting the blade. Secure the left block. With the bill still in place on the left, thread the other end between the right block and the blade, snug the right block up against the bill and blade (as shown in **Photo B**), and lock it into place. Now, repeat this process for the lower guide blocks.

10 Reinstall the table. Raise the upper blade-guide assembly as high as it will go, and use a drafting triangle or combination square to ensure the table is perpendicular to the blade, as shown in **Photo C**. If not, adjust the table's 0° stop (usually a bolt under the table) in or out until it is. 🔩



A A double thickness of paper currency provides proper clearance between the thrust bearing and the back edge of the blade.



B A dollar bill wrapped around the blade helps set the saw's guide blocks.



C With the bandsaw table's 0° stop set precisely, you're ready to begin cutting.