

Aligning the Blade Tension Scale

The blade tension scale is aligned at the factory, and under normal conditions it shouldn't need adjustment. However, if it vibrates loose or is knocked out of whack, it can be simply realigned.

Release the blade tension so that the blade is **completely** slack on the wheels. Then loosen the screw near the top of the scale. Rotate the scale so that the left edge above the notch is parallel to and even with the red indicator bar. (See Figure 8.) Hold the scale in position and tighten the screw.



Figure 8. Realign the tension scale so that it's parallel with the indicator bar, as shown.

Adjusting the Blade Rollers

The Shopsmith Bandsaw uses three rollers to keep the blade tracking properly on the wheels and to provide support for the blade during cutting operations. These rollers are adjusted during the initial setup and should seldom need attention after that. However, it's a good idea to check the alignment of these rollers each time you change blades.

You must mount and tension a blade in the bandsaw to properly adjust the rollers. Be careful when you make these adjustments, since the blade is sharp.

Auto-Track Roller — The auto-track roller is near the blade tension scale, at the upper left side of the machine. This roller guides the blade onto the upper wheel. The front-to-back position of this roller is fixed and shouldn't be altered. However, the mounting bracket can be moved side-to-side so that you can center the roller behind the blade.

If the blade appears off center, loosen the 1/2" mounting bolt that holds the bracket to the bandsaw frame. Slide the bracket sideways until the roller is centered behind the blade and tighten the mounting bolt. Be careful to keep the sides of the roller parallel to the blade when tightening this bolt. (See Figure 9.)



Figure 9. To adjust the auto-track roller, loosen the mounting bracket bolt and slide the bracket sideways until the roller is centered behind the blade. Keep the roller parallel to the blade when you tighten the bolt.

Lower Blade Guide Roller — The roller directly below the bandsaw table serves two functions: It guides the blade onto the drive wheel and it backs up the blade beneath the table while you're cutting. Like the auto-track roller, its front-to-back position is fixed and shouldn't be changed. However, the entire lower blade

guide assembly, including the roller, may be adjusted side-to-side.

If adjustment is needed, loosen the guide blocks (if you haven't done so already) and pull them out about 1/16" from the blade. Then loosen the 1/2" mounting bolt which holds the lower blade guide assembly to the bandsaw frame. (The head of this mounting bolt can be reached from the back of the bandsaw, just above the trunnion.) Slide the lower blade guide sideways until the roller is centered behind the blade, tighten the mounting bolt, and reset the guide blocks. Again, be sure to keep the roller parallel to the blade as you're tightening the bolt. (See Figure 10.)



Figure 10. To adjust the lower blade guide roller, loosen the mounting bolt at the back of the bandsaw. Slide the assembly sideways until the roller is centered behind the blade and then tighten the bolt.

Upper Blade Guide Roller — The upper blade guide roller backs up the blade above the table. Unlike the other two rollers, it can be adjusted side-to-side and front-to-back.

To adjust the upper blade guide roller side-to-side, set the height of the upper blade guide about 1" above the table (or 1-1/2" above the lower blade guide if the table has been removed). Loosen the guide blocks and pull them away from the

blade about 1/16". Loosen the two 1/2" mounting bolts that hold the guide post retainer inside the bandsaw frame. Swing the upper blade guide sideways until the roller is centered behind the blade, then tighten the mounting bolts. (See Figure 11.)



Figure 11. To adjust the upper blade guide roller side-to-side, loosen the two guide post retainer mounting bolts, pivot the upper blade guide sideways until the blade is centered on the roller, and tighten the bolts.

The upper blade guide roller must also be adjusted so that it's no more than 1/64" away from the back of the blade. **This distance should remain the same no matter what the position of the upper blade guide is above the table.** Before you adjust the upper blade guide roller front-to-back, check the distance from the roller to the blade close to the table and 5"-6" above the table.

If the upper roller presses against the back of the blade or if it's farther away than 1/64" at both the high and low position, you'll need to adjust the upper blade guide roller forward or back. If this distance is inconsistent or if the roller seems to press against the blade more at one position than

at the other, you also need to change the tilt of the guide post. Both adjustments are similar and are performed at the same time.

Remove the blade guard and loosen the 1/2" jam nuts on the two guide post adjusting screws, then proceed in this manner:

- To move the guide post and roller **closer** to the blade (without changing the tilt of the guide post), turn both of the adjusting screws an equal number of revolutions **counterclockwise**.
- To move the guide post and roller **away** from the blade (without changing the tilt of the guide post), turn both of the screws an equal number of revolutions **clockwise**.
- If the roller is not the same distance away from the blade close to the table and 5"-6" above it, turn each screw equally in opposite directions. This will change the tilt of the guide post. For example, to move the roller closer to the blade when the blade guide is at its lower position, turn the top adjusting screw clockwise **and** the bottom adjusting screw counterclockwise. To move the roller away from the blade at this position, reverse the procedure.

Getting these adjustments just right may take a little 'fussing around', but once you've got them right they will seldom need attention. Here are a few tips to help make this procedure a little easier:

- Mark your starting position with a grease pencil and turn the screws only 1/4 revolution at a time until you see how much the roller moves with each minor adjustment.
- Be sure that when you lock the upper blade guide height lock handle, the upper blade guide roller does **not** push the blade away from the lower blade roller.

- Each adjustment of the post will change the tension on the upper blade guide height lock. To adjust the lock tension, follow the procedure described in "Adjusting the Upper Blade Guide Height Lock" in this section.

Once you've completed these adjustments to your satisfaction, hold the screws from turning with a screwdriver and tighten the jam nuts. (See Figure 12.)



Figure 12. To adjust the upper blade guide roller front-to-back, loosen the jam nuts on the two guide post adjusting screws. Turn the screws until the roller is properly positioned, then tighten the jam nuts while keeping the screws from turning, as shown.

Check each blade roller one more time. With the rollers correctly adjusted, the blade should ride in the center of all three of them. The back of the blade should lightly contact the auto-track roller and the lower blade guide roller, and it should be no more than 1/64" away from the upper blade guide roller no matter what the position of that roller is above the table.

WARNING: Be sure to reinstall the blade guard before operating the bandsaw.