BT3000 Belt Replacement and Shim Adjustment Instructions from Ryobi Technical Support Submitted by Jim Frye

The following document is transcribed from the sheet that Ryobi Technical Support sends out if you request belt-changing instructions. It also contains information about adjusting the setscrews that hold the guide holder shims in proper alignment and instructions for taking the motor out. Ed Ellickson (see his article elsewhere on this site) expanded on this article to make belt changing even easier. Ed's article should accompany this one for anyone planning to change their own drive belts on the BT3K.

BT3000 Repair by Ryobi

Have you ever completely disassembled a power tool to replace a minor part, only to discover that there was an easier way to complete the repair in half the time?

Ryobi's BT3000 10" Table Saw is one of those tools, with multiple parts and adjustment points, on which repairs can become unnecessarily time consuming if you don't pre-plan logically. All operational and squaring adjustments are simple operations, fully explained in the videocassette and/or owner's manual supplied with each saw. However, the replacement of parts associated with the motor assembly is likely to become time-consuming if the proper procedure isn't followed.

The BT3000 transmits power from the motor to the spindle through two V-belts aligned side by side on a pair of pulleys. Continued and/or prolonged blade stalling and extended use may lead to belt wear and breakage. Due to the position of the V-belts, belt replacement is not a function that will be performed by the user. A service technician can replace one or both belts in as little as twenty minutes when observing the following procedure:

1. Remove throat plate (ref. #76), blade guard assembly (ref. #95), and blade (ref. #500).
2. Lower spindle to lowest position remove left cabinet panel (ref. #9), turn saw upside down, and remove dust cover (ref. #12).
3. Remove guide holder (ref. #80) and four shims (ref. #3 & #86) by removing six screws (ref. #87 & #89) and tapping on spindle with a soft mallet while pulling guide holder out.
4. At this point, belts are easily accessible and may be removed by walking them off, one at a time.
5. After walking new belts onto the pulleys, reverse the above procedure to reassemble. (Here's where Ed's article comes into play)

NOTE: The shims must be replaced in the same position as they were removed or binding will occur. Follow this procedure:

A. Place a small dab of grease on the inside of the shims to keep the shims in place on the holder (ref. #11 on motor breakdown) and locker bracket (ref. #10) while the guide holder is being secured.
B. After the guide holder is reassembled, apply light duty Loctite to the four set screws (ref. #73) and tighten until they make contact with the shims, and then back them off 1/8 of a turn. Over tightening the setscrews will scar the shims and possibly cause binding.
C. Once the setscrews are proper positioned, try to move the motor assembly from side to side. If any play is detected, tighten the setscrews slightly until all movement is eliminated.

Any work performed on the BT3000 motor assembly, such as armature or bearing replacement, requires following steps one through three above in the procedure to replace V-belts.

1-3. Follow steps outlined above. This allows access to the holder (ref. #11 on motor breakdown).
4. Remove the four pan head screws that secure the holder to the motor housing. Then remove the right cabinet panel (ref. #8).
5. You will now be able to separate the motor housing from the holder to replace any defective parts within the motor assembly.

Questions regarding repair, adjustment or use of the BT3000 may be directed to Ryobi's Technical Services Department at 1-800-323-4615, ext. 3380.