Refurbishing a 20-Inch Rockwell/Delta Vertical Bandsaw

For many years, I wanted a large metal-cutting vertical bandsaw. There are some jobs for which this is about the only tool that will do the work quickly and neatly. The problem was that these larger saws are very expensive to buy new and hard to find used. If you see 100 large vertical bandsaws, 99 of them will be designed for cutting wood—the blade speeds are far too fast for cutting metal.
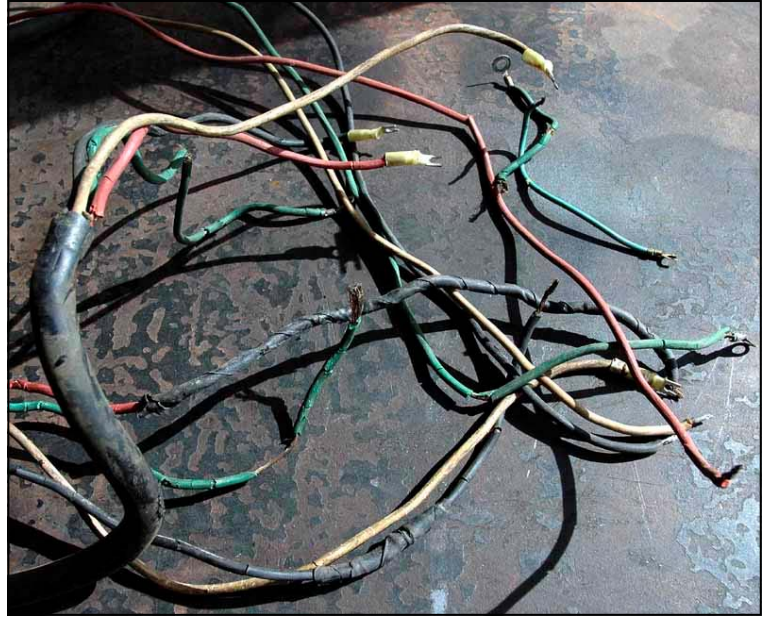

Finally, I got lucky. This saw became available and was cheap because it needed attention. This saw has a two-speed transmission that gives it a range from 5,000 feet/minute to 500 feet/minute in high range and from 500 feet/minute down to 50 feet/minute in low range. In the low range, the drive wheel is turning at about 10 rpm. Additionally, it has a variable-speed device that gives infinite adjustment within the two main ranges. Press on the foot pedal to change where the belt rides in the driven pulley and the speeds change appropriately. It will cut
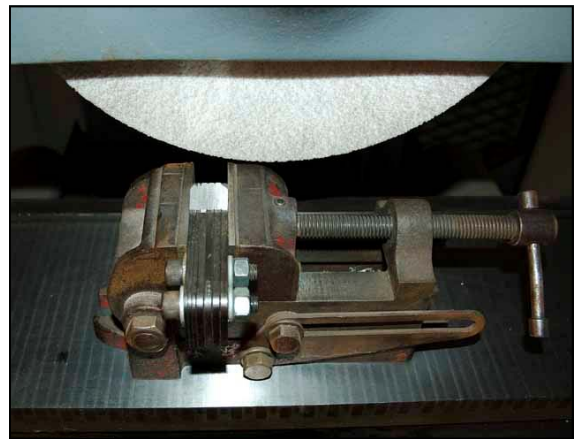
to the center of a 40-inch disk that is 12 inches thick and takes 150 inch-long blades from 3/16-inch to 1 inch wide.

First step was to replace the lower tire. That's a little bit of an adventure because Rockwell used a special tire with a rib moulded inside to keep it on the wheel. Not easily available these days. I bought a generic tire and glued it on.

Next, I pulled out and replaced several feet of really scary-looking wiring and rebuilt the magnetic relay switch. Then I installed a phase converter to run the 2 HP 3-phase motor on 1-phase.

With the wiring done, I moved on to

resurface the badly worn blade guides, and repaired the gritty-feeling lower blade support bearing. The bearing is a special construction that is no longer available so I finally cut it open and

cleaned out the chips. After relubing and welding it closed, it was good as new.

Now I could adjust the blade tension and tracking and then adjust the blade guides. The upper guide was misaligned because it was missing a bolt, so that was an easy fix.

There were a few more minor issues, but it's up and running.