

O4 January, 2009

It seems as though I just did a weekly update recently, but upon further examination the last one was December 15. I truly do not know where the time goes? A lot has happened over the past three weeks. The finish castings for the pans arrived, as you can see in picture #1. The teeth on the starter ring gear have been cut, picture #2. The distributor drive gears have also arrived, picture #3. Progress on the blocks is doing extremely well. All the water passages have been drilled and I am now in the process of making the main bearing supports. Picture #4 shows what has to be done to drill just one water passage hole.

Unfortunately, things do not always go as planned. It all started with I attempted to make the jigs needed for holding the rough cut main bearing caps. This is where 5 days of "hell" ensued. The surface finish on the steel was very rough and nothing that I could do was making any improvements! Remember, this Friday the day after Christmas. Reluctantly, I removed the spindle from my manual milling machine and was unable to find any significant problems. The next item that was removed was the entire quill. This proved to be a "Pandora's Box" of gremlins! Unfortunately, it did not come out as expected. After a few choice words and 3 hours later, the quill was out. Over the years, and the constant up and down motion had made some significant abrasions, not only on the quill, but in the head castings. Another 4 hours of carefully polishing and fitting and the quill was like new, or so I thought. Picture #5 shows what happens when all the components of a Bridgeport milling machine are removed. On Monday morning I attempted to replace the quill, but unfortunately something happened and it would not slide smoothly. Another 3 plus hours of hand fitting, some choice words, and the quill and spindle assembly was installed. During this installation process the quill cover was installed backwards. This is a small sheet metal cover which keeps out any particulate matter when the quill is all the way down. Another hour was spent to remove the quill and reinstall the dust cover. All the components were reinstalled and bolted down, including the motor, which was rewired to the switch. In my haste to put the covers in place, somehow the "V" belt had been overlooked. Another 2 hours and everything was operational. I made another cut on the proposed jig material and the surface finish had not improved. If anything, it was worse! The inevitable solution was replacement of the spindle bearings and almost \$500.00 dollars later, everything was working fine.

It is now Tuesday, December 30th and I needed to use the CNC mill for drilling and machining the, now "square" pieces of metal for the main bearing jigs. When I went to turn on the motor on, nothing happened. After removing the cover on the switch, I observed pieces of the switch that had broken and were laying in the bottom of the box. Once again, "Pandora's Box". Without going into a lengthy explanation, the switch was extremely difficult to locate! It arrived on New Years Eve. Not only did I replace the switch, but the brake shoes needed to be replaced. Once again, not an easy job! Pictures #6 & #7 shows both machines without motors or top housings.

Although, I am constantly doing preventative maintenance, sometimes things are out of my control. I am glad to report, everything is working extremely well and the jigs for the main bearing caps are finished. All the aluminum is cut and the machining process will begin tomorrow, Monday.

Pic #1



Pic #2



Pic #3



Pic #4



Pic #5



Pic #6



Pic #7

