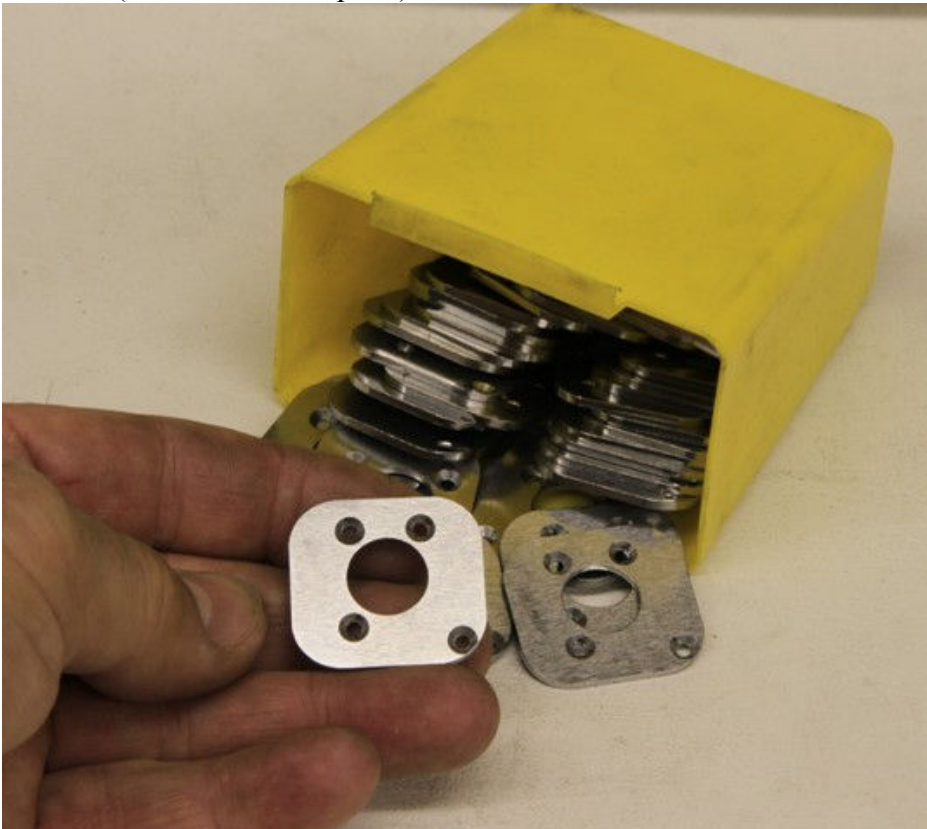


Another 2+ weeks have gone by and more parts are starting to accumulate. Remember when I made the comment about the “mountain of parts”, well these pictures will give you another idea of what I was talking about. Most of the pictures are self explanatory. Once again, making one part is relatively simple; making lots of parts which must be interchangeable is a whole other problem. If you think pictures #2 and #5 are the same – look closely at the hole pattern. This will save a lot of emails accusing me of using the same picture. Both thrust plates start from a piece of ground flat stock, from which blanks are cut to length. The screw holes are then drilled and counter-sunk. These holes are used to hold each blank in place while the CNC machining center produces the exterior profile. Keep in mind, each of the two jigs has 12 tapped holes which are 2-56 and I am using 1/8” long Phillips head screws to secure everything. Although a lot of these parts will never be visible, I take the extra time to make sure each piece is de-burred and polished. Is it absolutely necessary, no, but it is important to me that each part and component of this engine is as good as it can be and that includes surface finish.

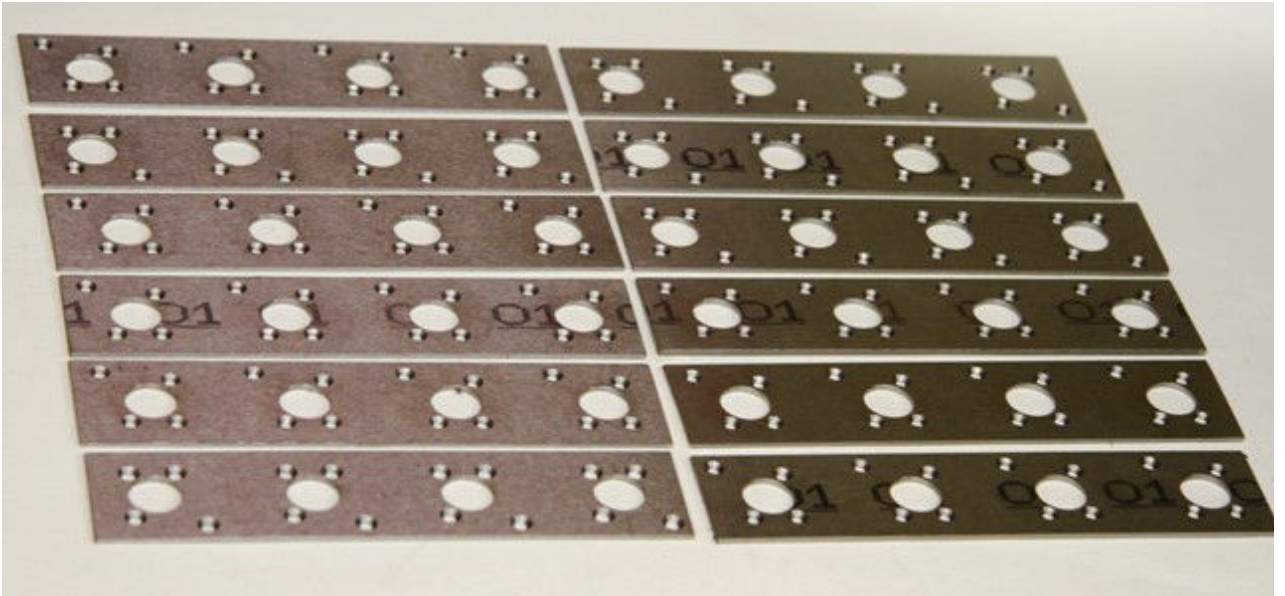
Picture #8 shows the finished toggle clamp blanks for the intake manifold. Each blank starts out 1/4” square stock, the holes are drilled and then the external profile is machined. Once all the blanks are finished each blank is then inverted and clamped in a vise – then all the extra metal is removed, which results in a finished item that can be seen in picture #7.

The crankshaft rear main seal support bracket in Pic. #10 starts with individual blanks, which are drilled and the center hole machined. The blanks are then held in place on each jig and can be seen in Pic. #11 - which show the before and after views.

Pic #1 (Camshaft thrust plate)



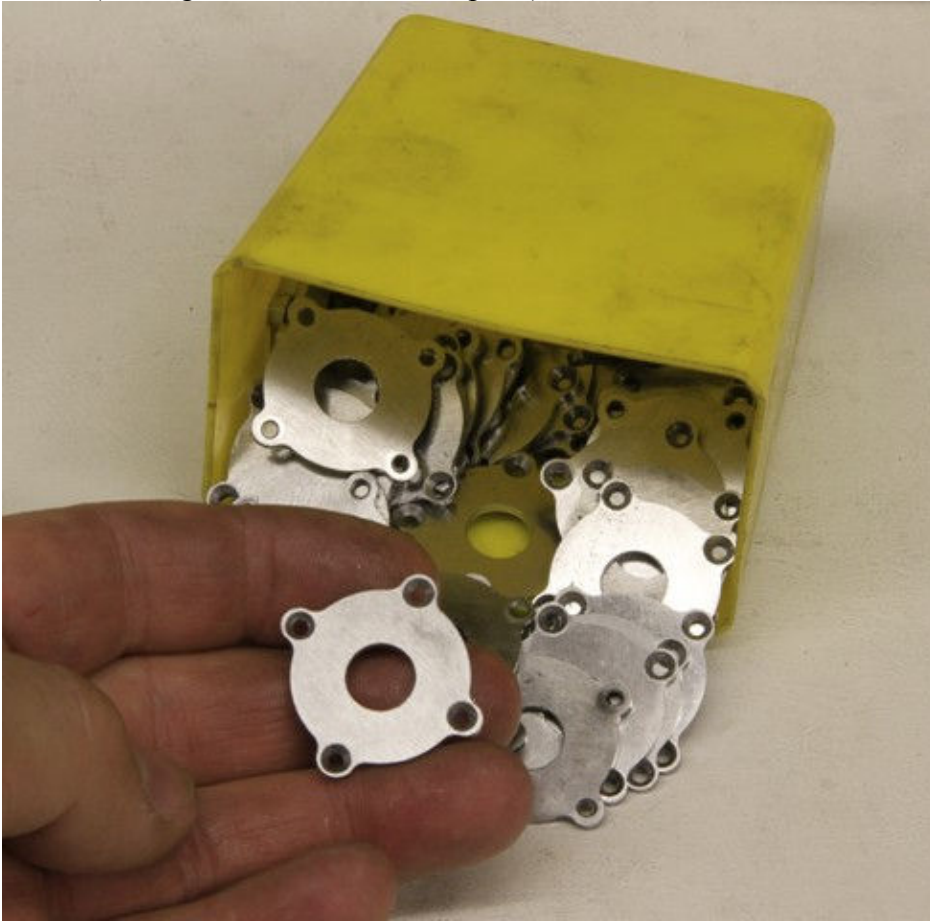
Pic #2 (Camshaft thrust plate blanks)



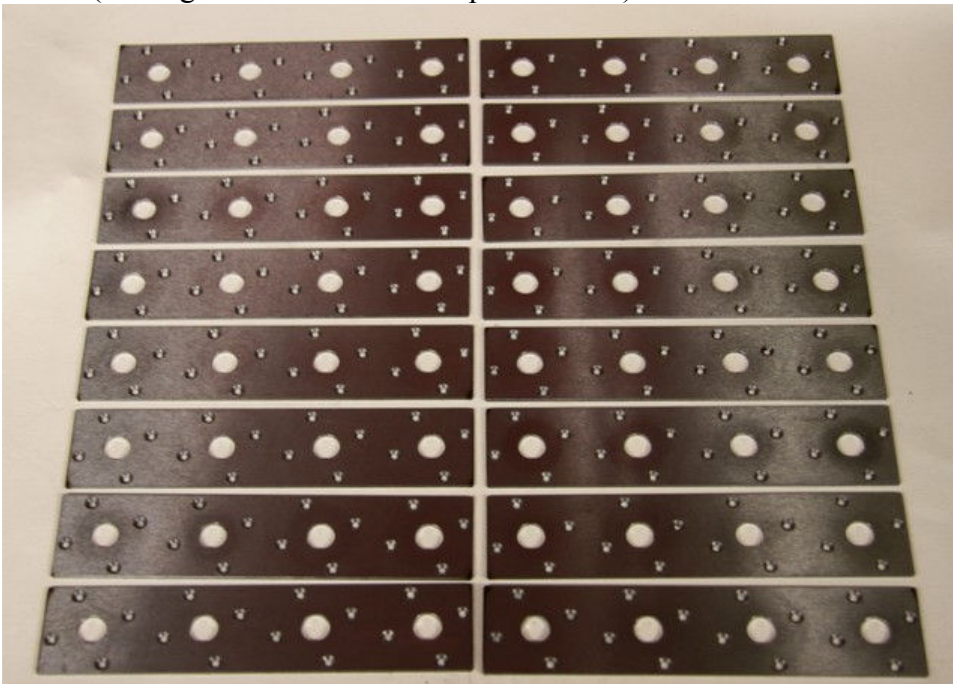
Pic #3 (Camshaft thrust plate machining fixtures)



Pic #4 (Timing cover internal thrust plate)



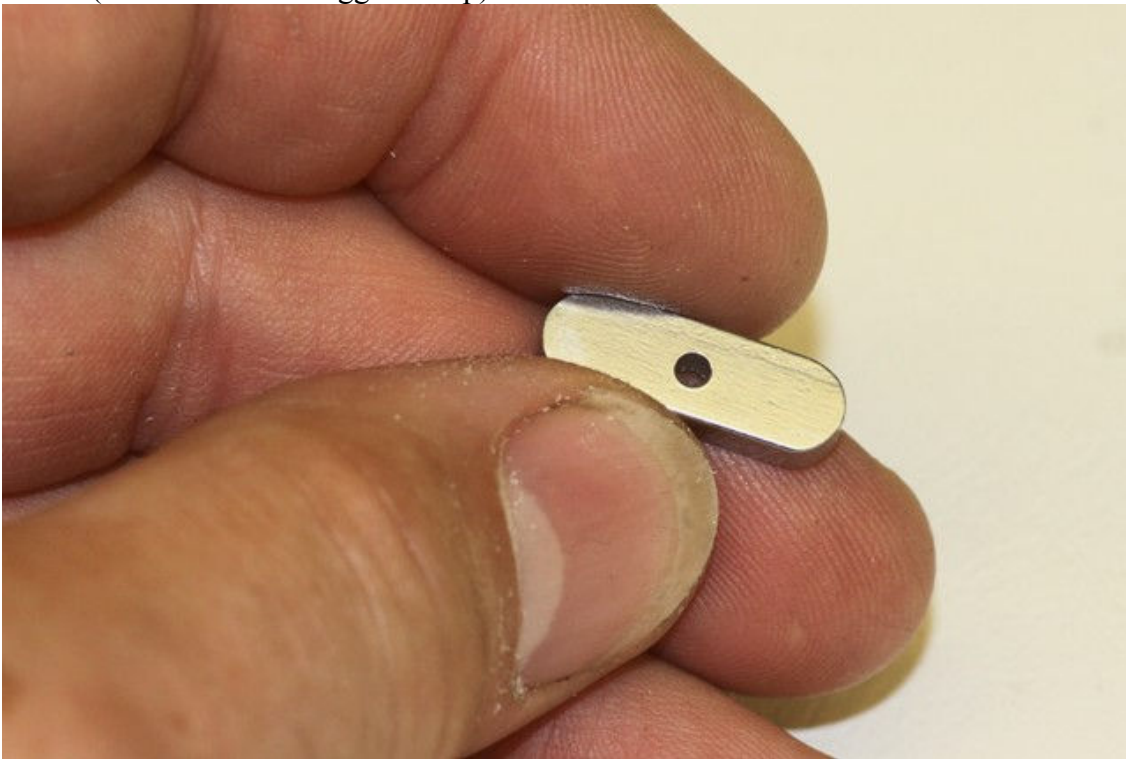
Pic #5 (Timing cover internal thrust plate blanks)



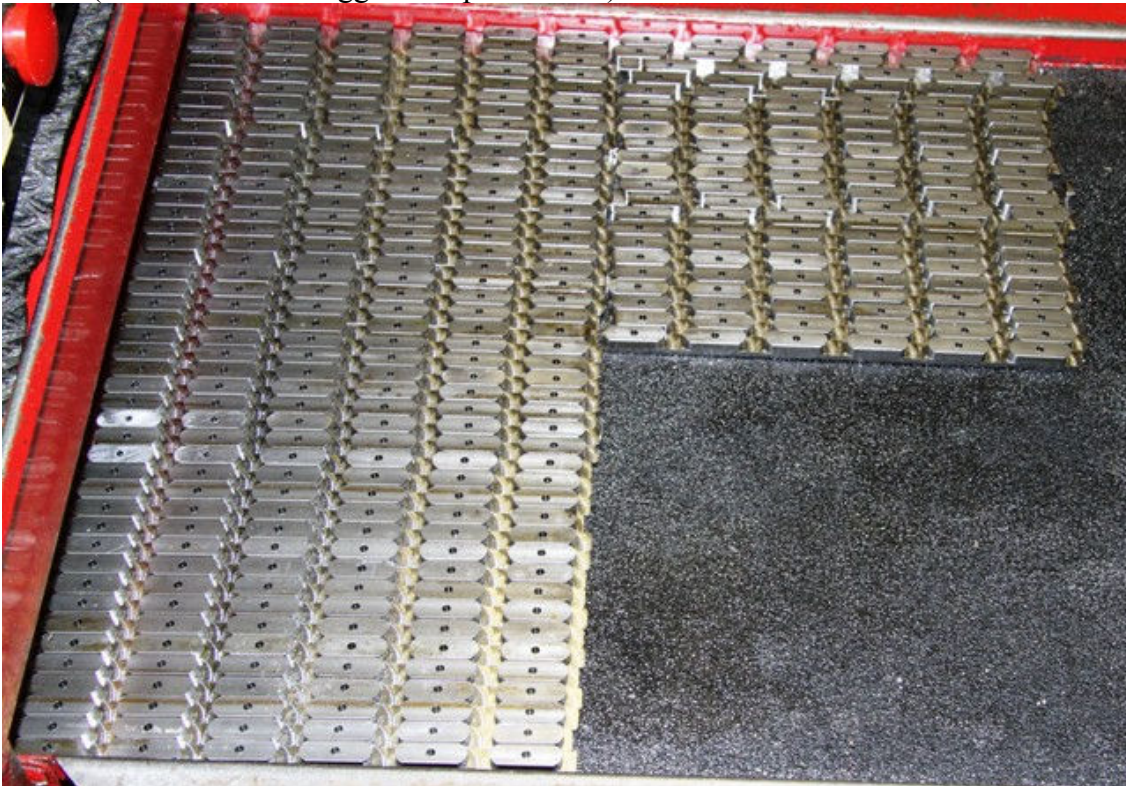
Pic #6 (Timing cover internal thrust plate machining fixtures)



Pic #7 (Intake manifold toggle clamp)



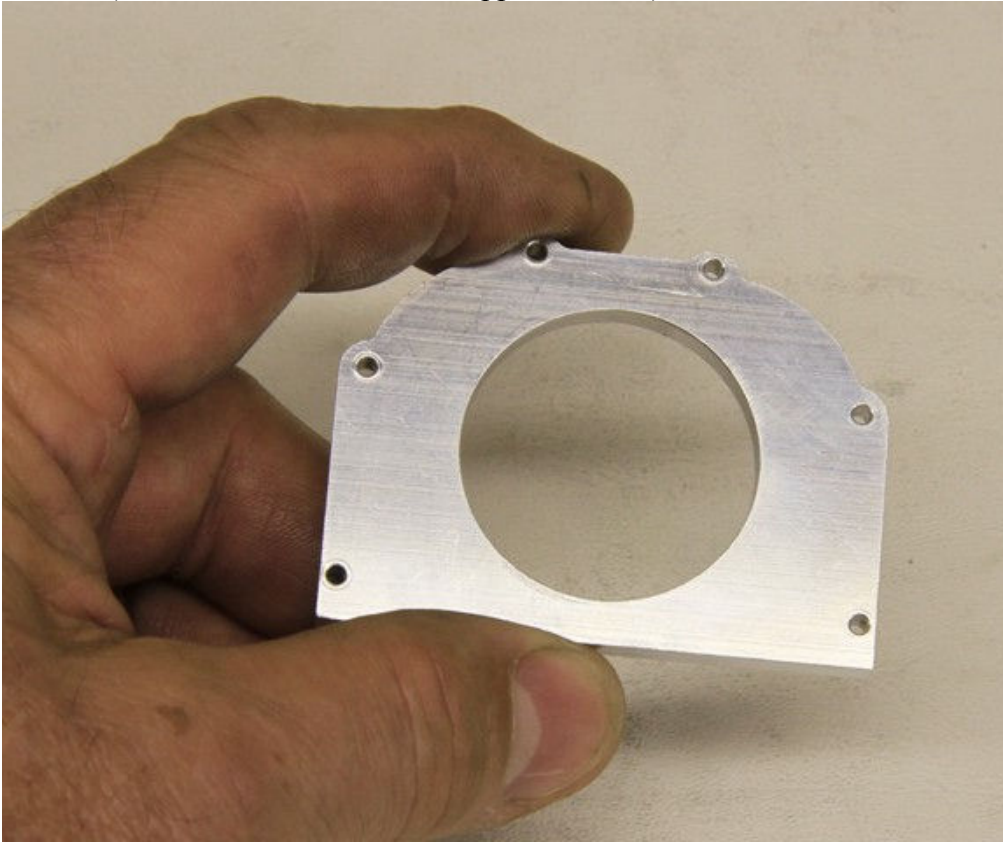
Pic #8 (Intake manifold toggle clamps – blanks)



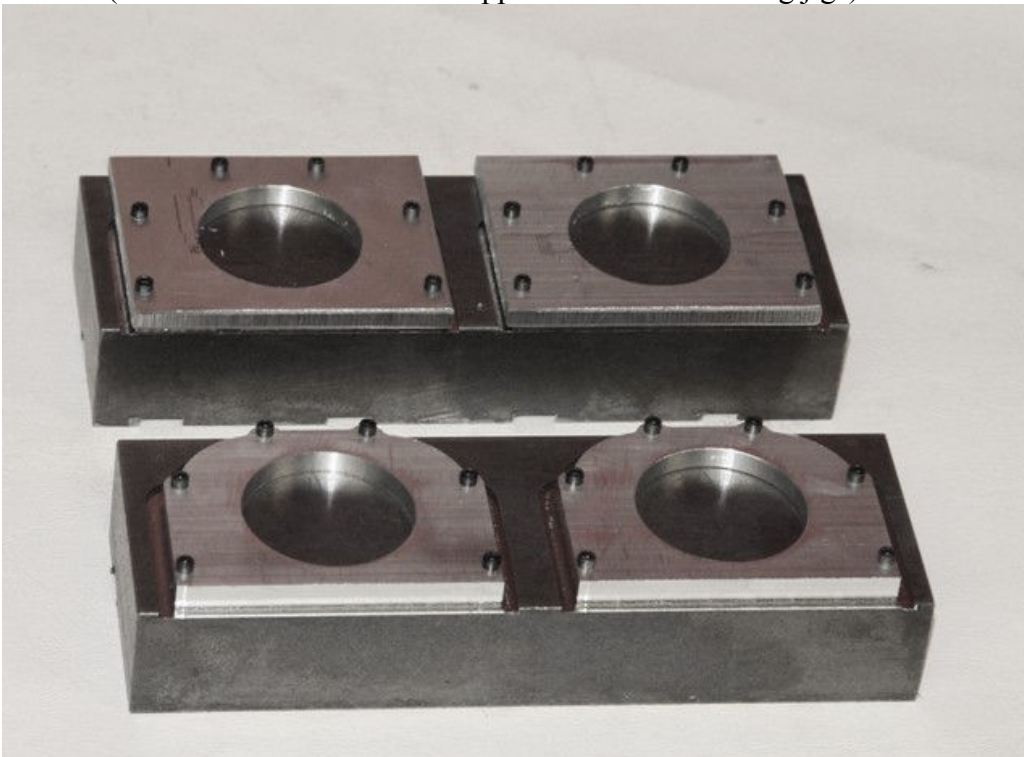
Pic #9 (Finished and polished Intake manifold toggle clamps)



Pic #10 (Crankshaft rear main seal support bracket)



Pic #11 (Crankshaft rear main seal support bracket machining jigs)



Pic #12 (Completed and polished crankshaft rear main seal support brackets)

