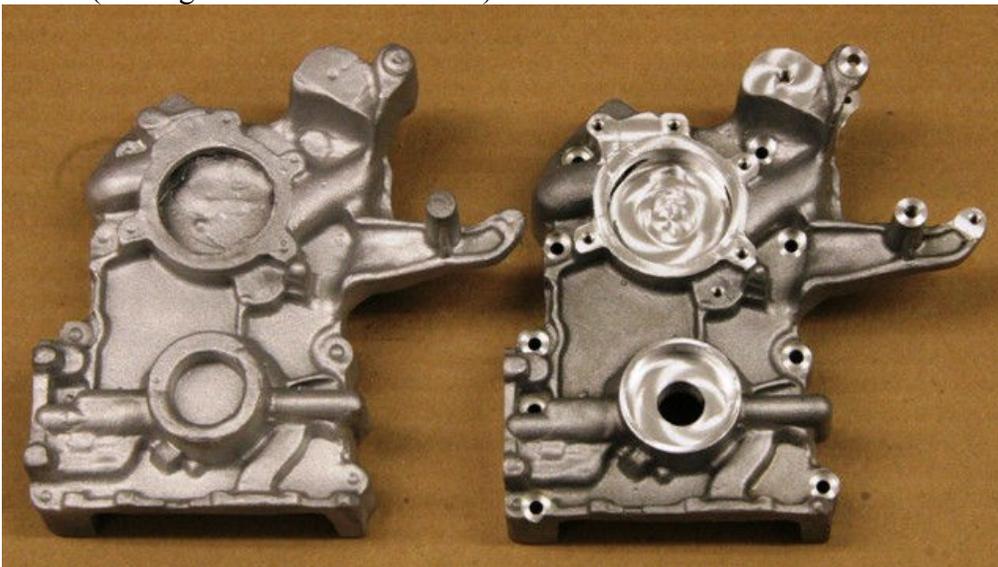


After a very busy past two weeks I have finished the front timing covers. As you can see from picture #1 the castings undergo a significant machining process. Actually there are four different CNC operations on each piece. There are a total of 33+ different holes in each timing cover. Keep in mind, it is not a matter of just drilling a hole – some of them are more than 5/8” deep, with a diameter of .110 and cannot be drilled in one pass. There is a code in the CNC milling machine for “peck drill”. For those of you who are not aware of what I am talking about, the drill goes to a predetermined XY Z position, then drills a small amount, it then retracts to the top of the hole, which cleans out the chips and allows coolant to enter the hole – it then rapids down to bottom of the hole that was just drilled – then drills a little deeper. This process is repeated several times until the hole is at the exact depth. I forgot to tell you that each hole must be center drilled first. A center drill has a very short drilling point but a significantly larger body, which does not flex. It is absolutely imperative that each hole be in the exact location. If they were not center drilled then the drill could “walk” which would be a disaster when it comes to the assembly process. In addition to drilling all the holes, some were then tapped and some were counter bored. Also, numerous surfaces had to be machined. These surfaces are critical and must be checked periodically during the machining process. If too much material is removed then gaskets do not seal, belt tension is too loose, and parts do not align. If not enough material is removed then holes do not align, belt tension is too high, and parts do not fit there predetermined location. This is exhausting just trying to explain and I really should have my head examined to see if anything remains. Ha. Ha. Remember, this is only one part of many that must align with each other and additional components attach too. You can see how the “snow ball effect” could happen very easily.

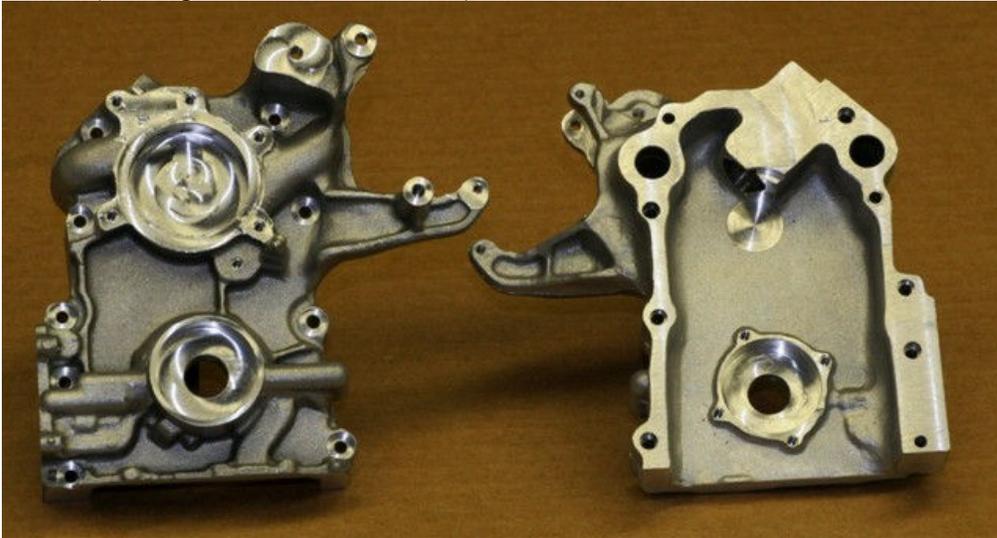
The tooth drive pulleys can be seen in the final pictures. They start as length of machined stock then each piece is cut into several smaller pieces. One side is machined on each piece then a second operation is performed on the other side. Once again this component must fit some of the parts that were machined several weeks ago.

The stack of individual parts continues to build and very soon will become sub-assemblies, then complete components and finally a finished engine. HO AH.

Pic #1 (Timing cover before and after)



Pic #2 (Timing cover front and back)



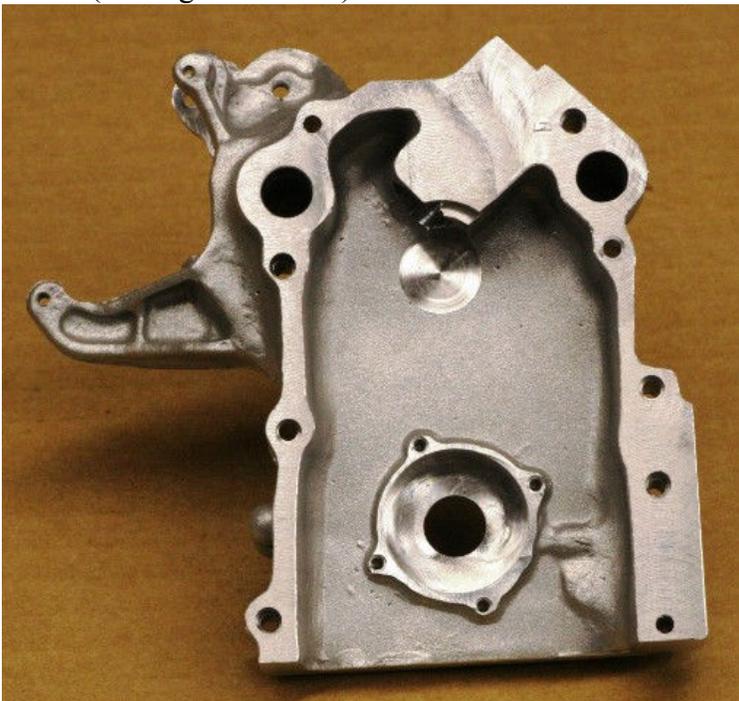
Pic #3 (Timing cover ¾ front)



Pic #4 (Timing cover front)



Pic #5 (Timing cover back)



Pic #6 (Finished timing covers)



Pic #7 (Finished timing covers)



Pic #8 (Timing pulley stock)



Pic #9 (Timing pulley stock cut into lengths)



Pic #10 (Timing pulley progression)

