

It is difficult to understand where the past three weeks have gone since my last update. It is not that I do not have anything to say or report, but rather find it hard to set aside enough time to explain everything. If you remember the pulleys and drive adaptors which were made and explained in a previous update, well they were only partially finished. Once the basic shape has been machined it is then necessary to drill all the holes that are needed to attach each component. When looking at the pictures, at first glance they may look the similar, but if you look closer you will find that each is very different. I am overwhelmed at just how many pieces it takes to complete this engine. When producing and testing the prototype it was not too difficult to make a single part and make any modifications that were needed. When hundreds are needed then special jigs must be made and some very complicated CNC programs must be written and proofed. Once again, what I need more of is TIME. Even the timing gears must be modified to fit my specific application. Although these gears were custom made, they would be cost prohibitive if each were made to the exact need. So I just order a basic gear the alter it as needed. Even the tiny pivot for the rocker arms must be drilled. You can get an idea of just how small they are in picture #9. The water pump impellers (Pic. #10) are finished. The next process is to press a .1873 stainless steel shaft into each. They will then be place in a collet in the lathe and “trued” to make sure there is no run-out. And finally the distributor rotors in the final picture are almost finished. If you look closely you will see a series of very small holes which must be place perfectly. An extremely strong and very small magnet is then put into each hole. This will trip the Hall Effect sensors which are placed on the outside of the distributor body. This process will be discussed in greater detail in the very near future.

Although I do almost all the machining in house, in the attempt to save some time I elected to have an outside source do the machining of the heads for me. No matter how much you try to plan, it is difficult when “things” are out of your control. A good example of my constant fight with time is that I was just informed by the CNC machine shop that they did not have the time to do the heads for me. This came as a shock and was totally unexpected. It is not that I cannot do them, it is just that it would have been a great help at this stage of the engine. It is however, a little bittersweet – even though they cannot machine the heads, there is also no large invoice to pay.

Pic. #1 (Supercharger drive pulleys)



Pic. #2 (Crankshaft main drive pulley)



Pic. #3 (Supercharger pulley drive hub)



Pic. #4(Crankshaft main pulley drive hub)



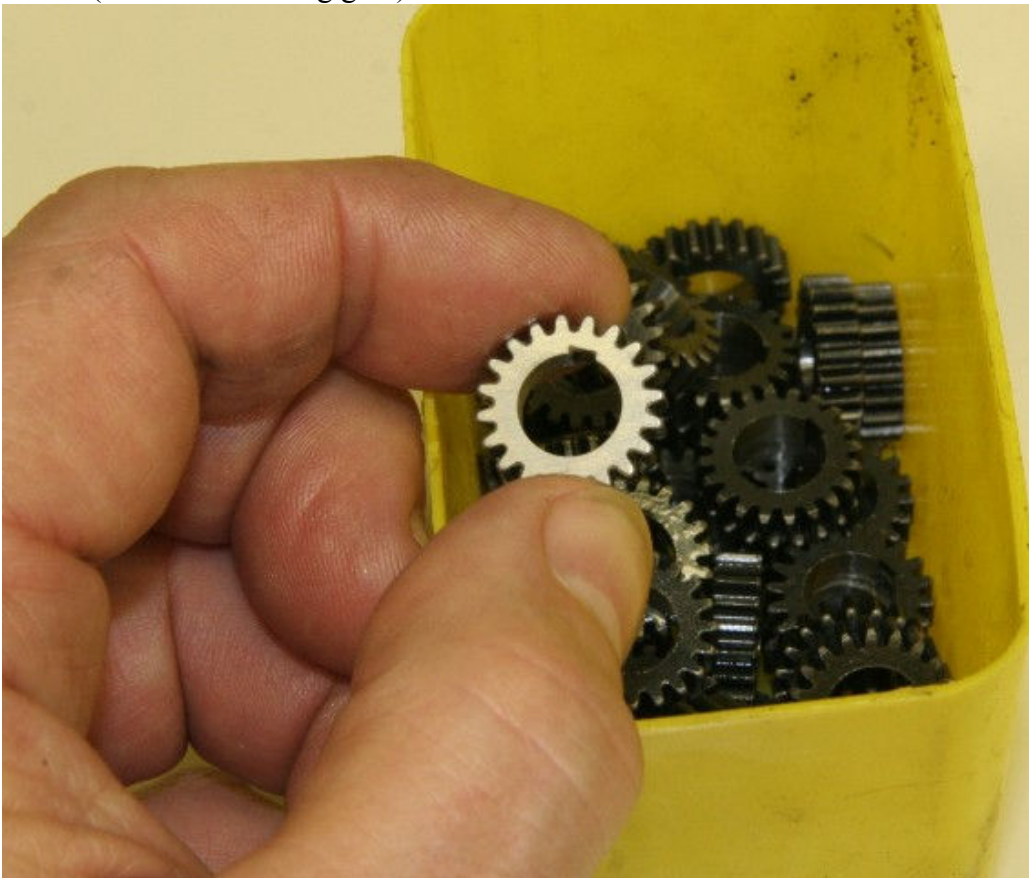
Pic. #5 (Oil pump pulley drive hub)



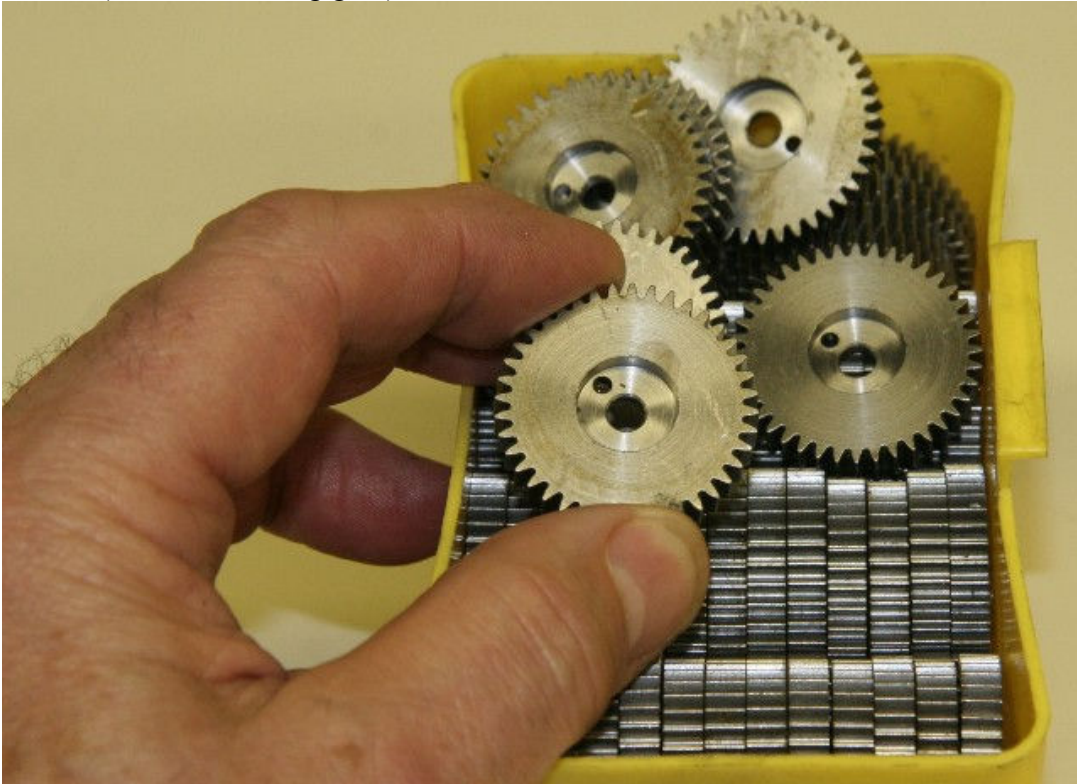
Pic. #6 (Timing idler gear)



Pic. #7(Crankshaft timing gear)



Pic. #8 (Camshaft timing gear)



Pic. #9 (Rocker arm pivot)



Pic. #10 (Water pump impeller)



Pic. #11 (Distributor rotor)

