

For what it is worth, I started this update on Christmas day and it is now 7:10 Sunday morning, January the 12<sup>th</sup>. Between the Thanksgiving holiday, Christmas holiday where my mother-in-law spent 5 days, New Years, a bad time with the flu, and some elective surgery for my wife, and my sons visit from Alaska, my days have been a very active and sometimes extremely difficult. Add to this the daily demands of a small business, I get tired just thinking about everything. As most of you are aware, my days are incredible busy, but this holiday season was a little more difficult than most. On some days, it felt like I was taking one step forward and two steps backwards.

So much for the incidentals! The engines are progressing at a good rate. I was even able to ship two of the new engines. I had a customer in Germany who wanted to show these engines at a Model Engineering show January 12-14. The net result of this effort on my part, could be great for business. So much has happened it is difficult to know where to start. The alternator halves are nearing completion. Keep in mind any item which is cast, requires special jigs and fixtures and the un-machined surfaces often vary in dimensions. It is my job to make sure all parts are interchangeable and are machined to the exact specs.

The toggle clamps for holding the intake manifold in place are finished. I start with a 8 foot length of mild steel, which is 1/2" x 1/8" and every 2 minutes, I have three finished clamps, that are ready for installation. I should say, all the pieces are tumbled to deburr all edges.

The cast aluminum valve covers are in the process of being finished. Once again, these are castings and when you add to this, the sides have two different tapers, it is often difficult to hold and machine. You can see the before and after in picture #6.

The carburetors are finally finished. This is a lengthy and time consuming process. Although from all outward appearances, it may appear to be easy, in actuality all of the operating stamped steel pieces on each carburetor must be removed and re-machined for my application. On the choke shaft, these steel pieces had to be removed, then a hole drilled and tapped. The needle valves were removed and then each of them had to have a slot machined, for customer adjustments. There are 150 carburetors and when you consider all the work which must be done, the time needed is very large.

The distributor shafts are now finished and ready to installation. Next week I will start working on the distributor housings.

All of the quick-disconnects are in stock.

Picture # 12 shows the completed oil pumps. Finally! Now each must be tested for flow and pressure.

And finally, the price of the Stinger engines will be increasing and are in effect as of January 1, 2014. This was an extremely difficult decision to make and one that I have been considering for a long time. The prices of my engines have remained the same for the past 6 years and everything have been getting more expensive. A bar of brass which used to cost me about \$11.50 is now over \$95.00. The sand castings for my previous engines, cost me about \$8.00, now cost me over \$125.00 each. The average cost of using an outside machine shop, is over \$125.00 per hour – 6 years ago, they only charged

me \$45.00 per hour. The bottom line is, the base price for a standard engine will be going from \$5,695.00 to \$8,257.75 and the supercharged version from \$7,390.00 to \$10,715.50. I apologize for the increase and sincerely hope everyone understands why this change had to be made. THIS NEW PRICE INCREASE DOES NOT HAVE AN AFFECT ON EXISTING ORDERS PLACED BEFORE JANUARY 1, 2014!!!

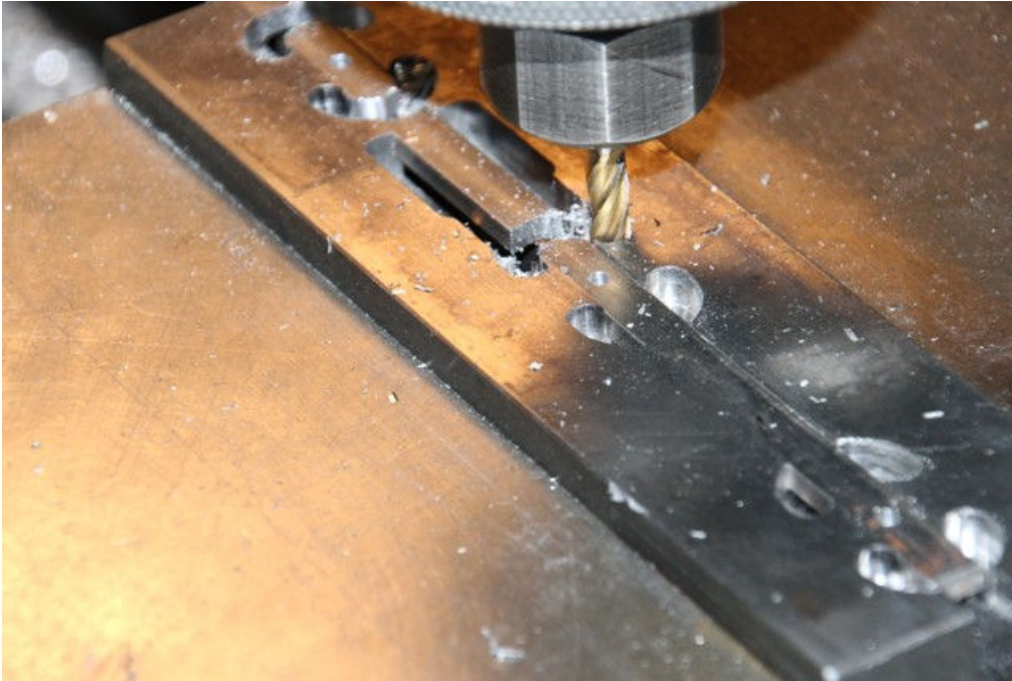
Pic #1 ( Initial machining operation for alternator halves)



Pic #2 ( Holding fixture for alternator halves)



Pic #3 ( Machining toggle clamps for holding intake manifold in place)



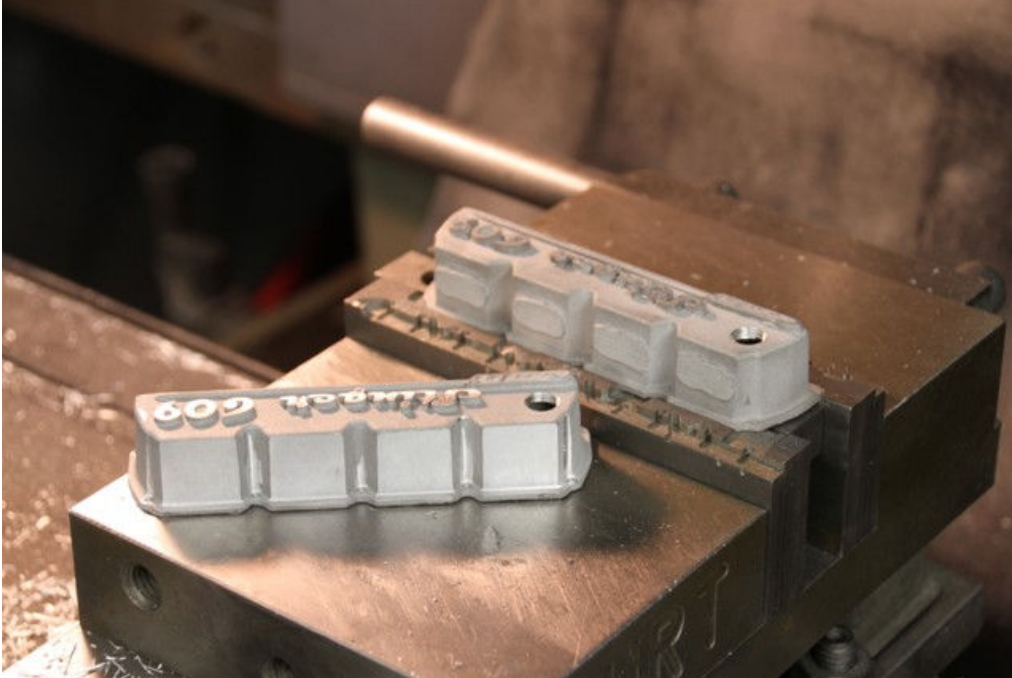
Pic #4 (Completed toggle clamps)



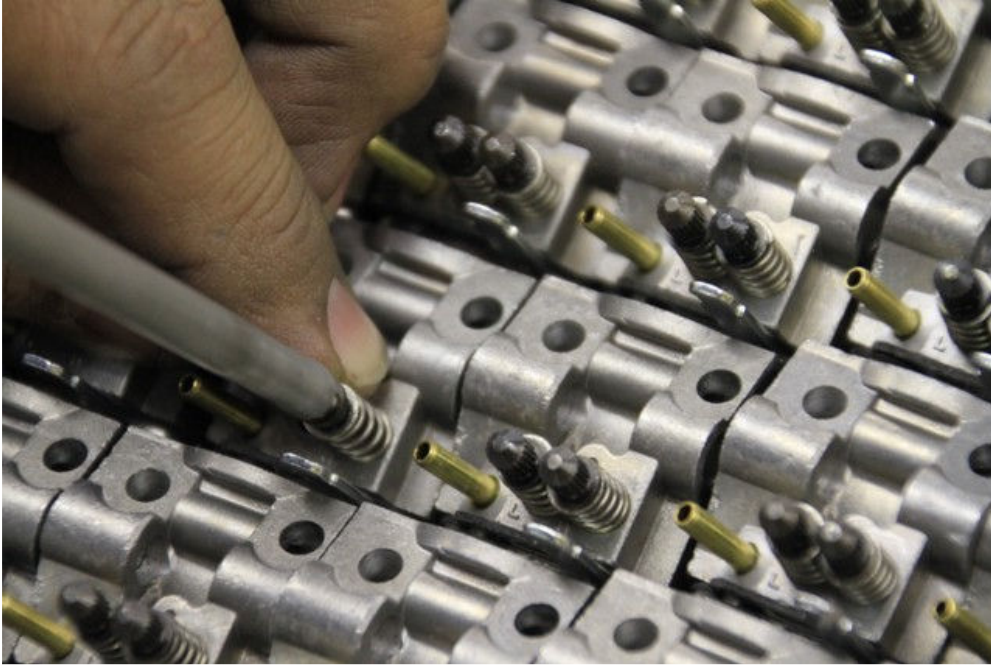
Pic #5 ( Unfinished valve cover before machining operations)



Pic #6 (Completed valve cover in foreground)



Pic #7 (Removing low and high speed needle valves)



Pic #8



Pic #9 (Semi-finished carburetors)



Pic #10 (Completed distributor shafts)



Pic #11 (Quick disconnects in stock)



Pic #12 (Partial tray of completed oil pumps)

