

As usual, it has been extremely busy since the last update, with a little time off for a careless accident. The first couple of pictures shows what happens when a cutter is not taken out of the way. I was machining a piece in the lathe and had an end mill held in the tail stock. Normally I would slide the tail stock out of the way then remove the work piece. This time, I had to answer the phone and forgot to do this. As I went to remove the piece, the little finger on my right hand, caught the edge of the very sharp end mill. To make a long story short, a trip to the emergency room, 8 stitches, and two days off work, things were somewhat back to order.

The timing covers are all complete but have not been installed on all the motors. If you remember they had to be removed because I had forgotten to drill 4 holes on the bottom edge for attaching the pan screws. So much for planning!

We are in the process of setting up the camshaft timing. This is an absolute critical process. As you can see from picture #4, I use a degree wheel, dial indicator, piston stop screw and pointer. I will try to make this simple, but it takes a lot of time to make sure everything is perfect. I first need to make sure where top dead center is located. A degree wheel is placed on the crankshaft and the pointer is placed below the intake manifold, on the top of the block. The piston stop screw is placed through the spark plug hole and then the crankshaft is rotated until the piston hits the stop. The degree wheel is turned until it reads TDC. The crankshaft is then rotated the opposite direction until the piston hits the stop screw again. I then take a reading on the degree wheel and divide by two, and rotate the degree wheel until I have the same reading on both sides of TDC. This operation must be done on each engine. Once I am confident everything is correct, a dial indicator is placed on the intake valve on #1 cylinder. Knowing the specs from the camshaft manufacturer it is then a process of setting the camshaft gear in the proper location in relationship with the crankshaft gear. Just to make sure everything is correct, I also check the exhaust valve with the same operation. Not only do I need to know when exactly the intake valve starts to open, I also need to make sure the intake valve is closing at the correct time. This was basically a simplified explanation, but shows just how critical this operation has to be.

The water pump pulleys are finished and all that must be done to them is to drill and tap two holes for attaching to the water pump shaft.

The supercharger main body housings are finished. The pictures only show the before and after, of the top and bottom. I will include some pictures next time of the front and back.

All of the lower drive pulleys are finished with the exception of two holes which must be drill and tapped for attaching to the crankshaft adaptor hub.

And finally, the idler brackets are finished. Keep in mind these parts start from a piece of bar stock. They must fit perfectly to the top three screws on the water pump housing. The idler pulleys and supercharger tooth drive pulleys are also in stock, ready for installation.

Pic #1 (cut finger)



Pic #2



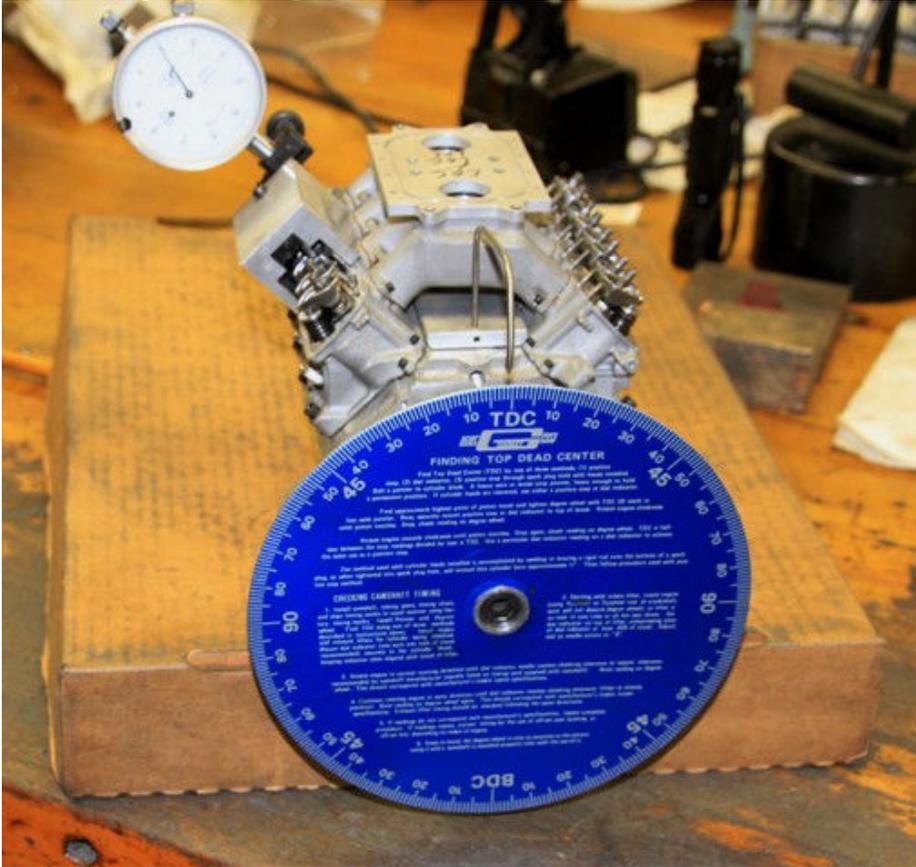
Pic #3 (8 stitches later)



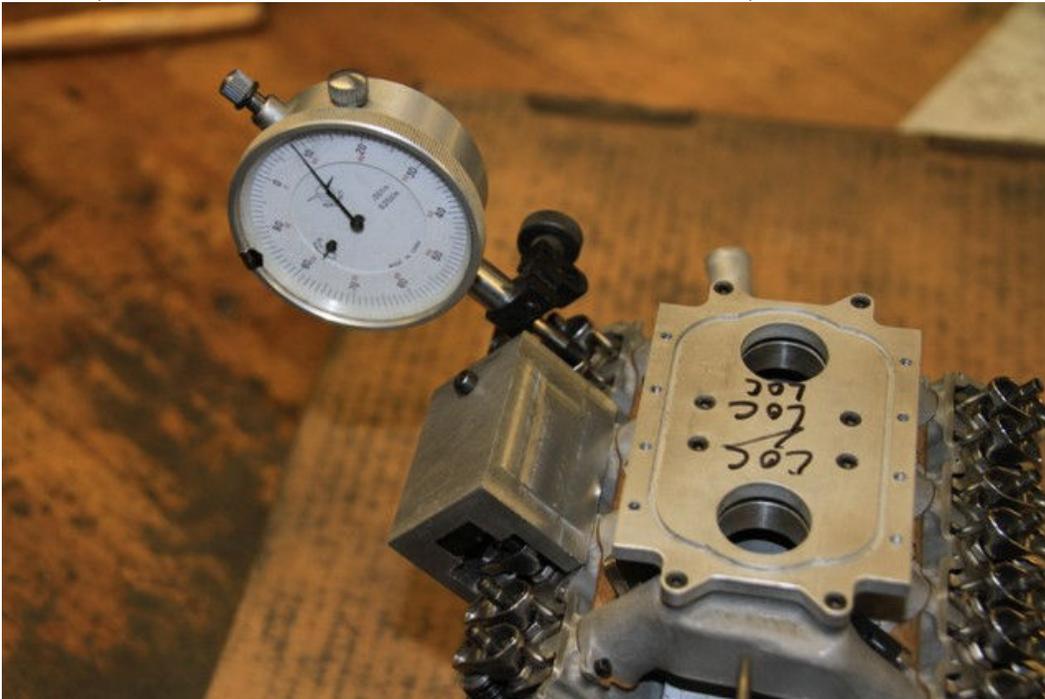
Pic #4 (Items for setting camshaft and crankshaft timing)



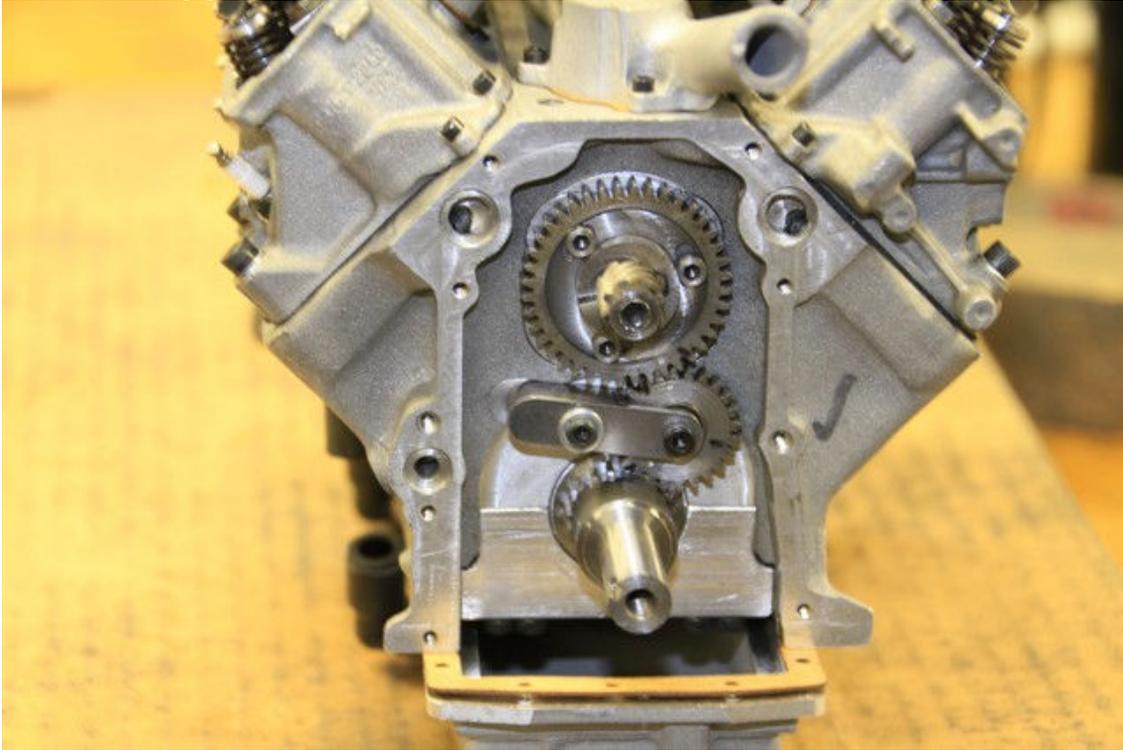
Pic #5 (Degree wheel, pointer, and dial indicator)



Pic #6 (Dial indicator used to watch rocker arm movement)



Pic #7 (Timing gears)



Pic #8 (Water pump pulleys)



Pic #9 (Supercharger housing, first machining operation)



Pic #10 (Supercharger housing, second machining operation)



Pic #11 (Lower crankshaft toothed drive pulleys)



Pic #12 (Idler bracket and machining process)



Pic # 13 (Finished idler brackets)



Pic #14 (Idler pulleys and supercharger tooth drive pulleys)

