

I cannot believe it has been so long since my last update. A lot has happened and I will try to bring everyone up to speed. First of all, I had my left knee replaced about 5 weeks ago. Needless to say that I was unable to get in the shop to take pictures and for about 3 weeks it was difficult, just to get around the house. The surgeon had me on some quite strong medication which made me unable to run machines or even set them up. Just trying to concentrate on the computer was a challenge. With continuing physical therapy, everything is getting better, but it is a slow recovery. Prior to going into surgery, I made sure the employees had plenty of work to keep them busy. Not only did I lose over 4 weeks of work, but now I have to make that time up, somehow. So much for the trivial points! I am sure everyone is now wondering how the engines are progressing.

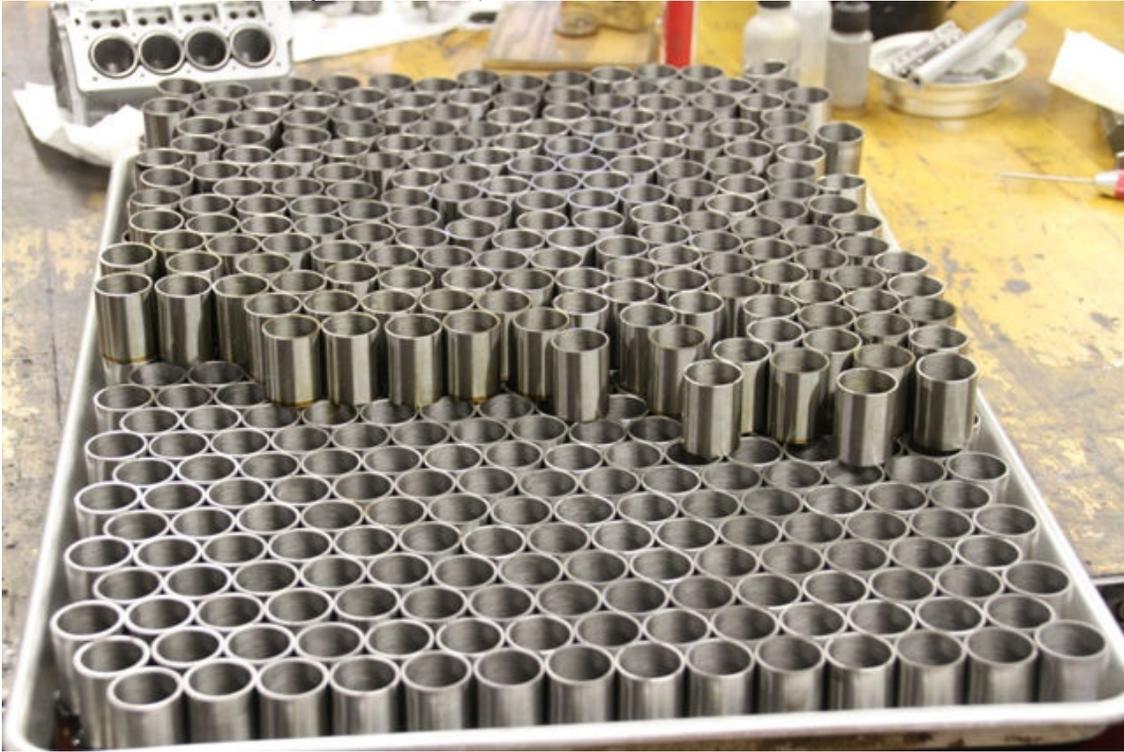
As you can see there is a large box of cylinder liners which were finished – I thought. After honing over 550 liners, I discovered that somehow the calibration gauge was not setup properly or something had moved. What this means is, the bore in all the liners was .001 too small. This may not seem like a lot, but it is quite important that everything be made according to the prints. The only thing that could be done was to re-hone all the liners. No problem, just time. When I had the rough liners made for me, I knew that amount of material ordered, would be very close, but never thought there would be any problem. As you can imagine, several of the liners did not get honed to the exact dimension and were subsequently rejected. Getting additional stock is not a simple operation. I first need to order the cast iron stock, which was then, sent to be heat treated or stress relieved. If this is not done the cylinders end up being slightly oval in shape and cannot be corrected or used. After heat treat, the stock must then be sent to the machine shop and wait for their time to make the liners. As you can see, this process can take quite a long time. Anyway, after the liners were finished honed again, a count was taken and there were not enough liners to complete the engines. I then had to start the whole process over again. This is not a big problem, but when a small amount of stock is ordered, the price is higher. The same is when only a small amount of liners are made. I hope everyone is still with me.

If you look at the pictures, you will see a very unusual “V” shaped jig. This is used to torque each cylinder liner in place and allow the Loctite to cure. This is a very important operation, which puts a considerable amount of pressure on each liner. Once cured, then the exact height of each cylinder (deck height) must be machined. This is critical for the head placement, which allows for the intake to fit properly. Keep in mind there are two gaskets, which must be allowed for. Everything must fit exactly, close is not good enough!!!! Like I have always said “I would much rather explain a delay, than apologize for the quality”. This is an excellent example of what I am talking about.

This week I will be honing the bore for the crankshaft and camshaft. Once this is finished, then the crankshafts can be installed, after which the pistons and connecting rods can be installed. I will then have what is called a “short block” from which every other item can be put into place. Stay tuned.

The final pictures are of the new high insulating Silicone spark plug boots. These were added to eliminate the high voltage from possibility arching through the standard boots.

Pic #1 (Finished honed cylinder liners)



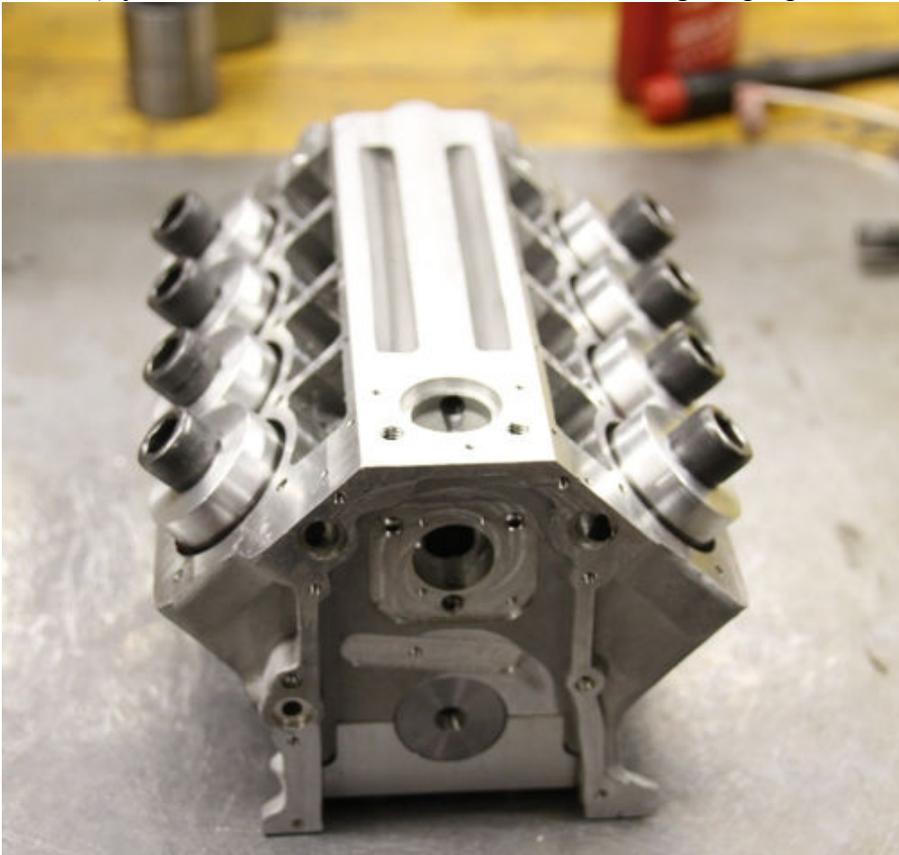
Pic #2 (Special jig for applying proper torque when installing cylinder liners)



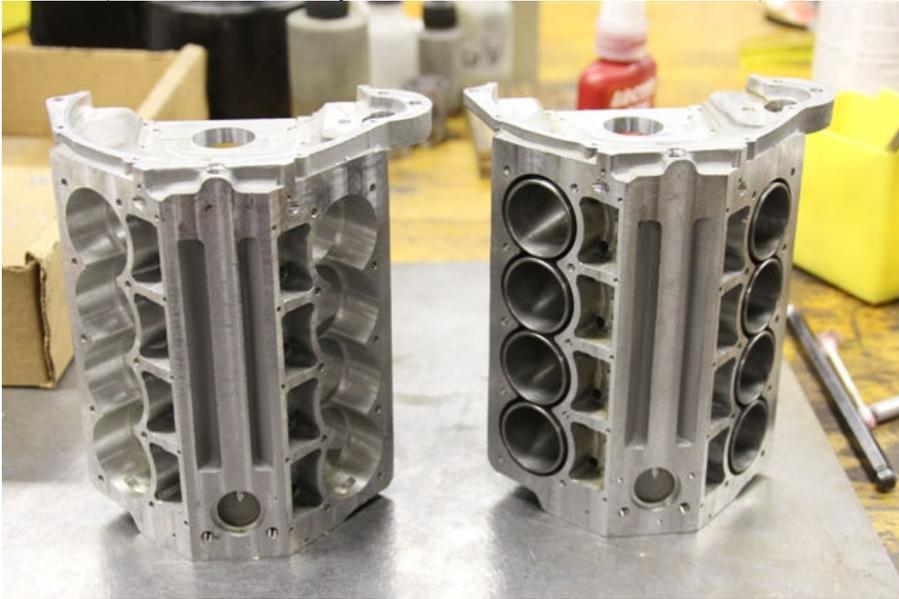
Pic #3



Pic #4 (Cylinder liners installed in block and allowing for proper cure on adhesive)



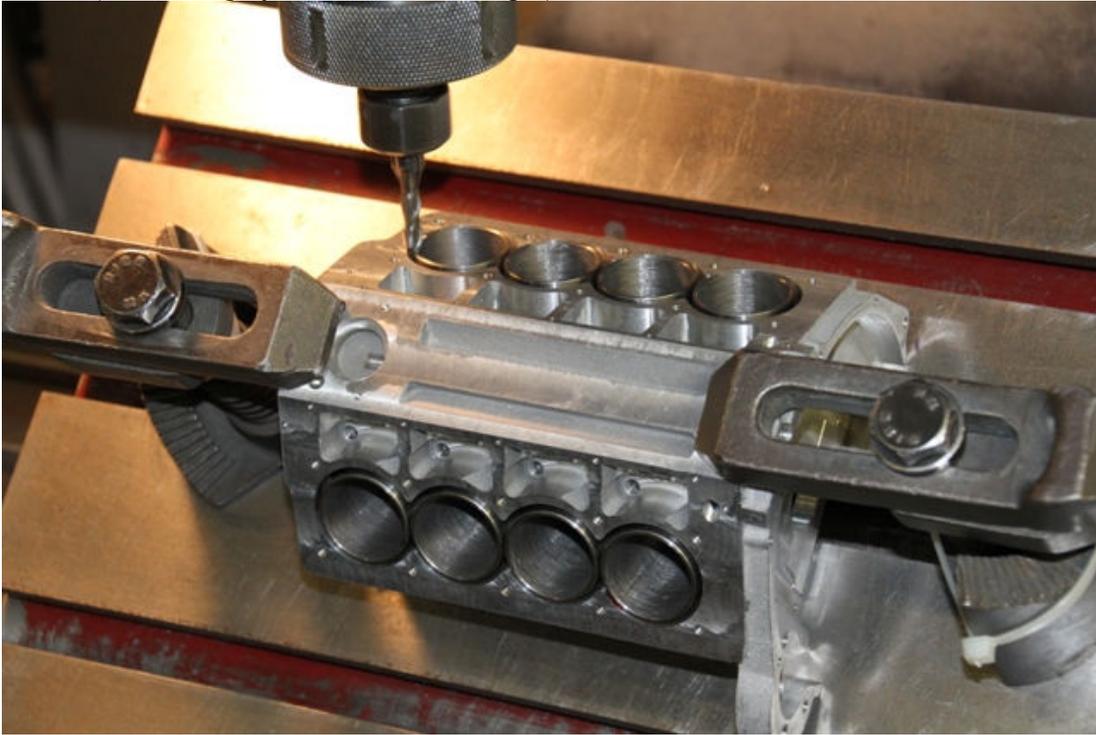
Pic # 5 (Before and after cylinder liners have been installed)



Pic #6 (Liners installed in all the blocks)



Pic #7 (Machining cylinder to exact height)



Pic #8 (New Silicone boot installed on spark plug wires)



Pic # 9

