(06 Jan 2008)

Pic #1

Pic #2

Pic #3

Pic #4

It is now Sunday evening about 8:32 and what Pic #1 shows is the culmination of a full weeks worth or work. Although at first glance it may not look like anything significant was accomplished, I can assure you that you would be very mistaken. **Finally** all of the critical dimensions on the length were finished. Like I said before, nothing can proceed until these operations have been successfully completed. So far only 3 crankshafts have been rejected.

Once the exact length was known, then the two holes in either end were threaded. Pic #2 Remember, 4130 (high strength) steel was used for casting. As a result normal taps get dull very fast, so I had to resort to using a TIN coated M42 Cobalt tap. Luckily no breaks.

Pic #3 shows the flywheel end being drilled for the four dowel pins that will be used to center the clutch drive system. This was also a

significant design change from the original which used 8, 6-32 taped holes. The net result is higher accuracy, stronger, and easier assemble.

Pic #4 shows the crankshaft with the dowel pins installed, the OD of the flywheel end finish ground, the major OD finished turned, and the smaller OD on the front finished and cut to length. One crankshaft is difficult, but 50+ is insanity. Keep in mind that there has been 9 operations so far. This results is that over 450 times the crankshafts have been picked up, placed in jigs, and machined. Very, very, time consuming. Unfortunately, there is no easy way or short cut that can be taken. The next operations will include: machining away the majority of the excess metal for the main and rod bearings, rough grinding all diameters, finish grinding all diameters, drilling oil passages (not looking forward to this operation), milling keyway for timing gear, and cleanup any flashing or burrs.