(09 March 2008)

Pic #1

Pic#2

Pic #3

Pic#4

I am still in the process of grinding crankshafts and realize that this sounds like a "broken record". You will be glad to know that everything is progress as expected. A lot of time this week was spent on modifying the water pump. When I went to run the engine I noticed a small amount of water on the test stand. Upon further examination, I discovered the bushing (which was a suggestion from another engine designer) that was used to support the water impeller was starting to show signs of wear. This allowed the shaft to "wobble" and consequently allowing water to migrate past the "O" ring that was used for a seal. Because the "serpentine" belt applies a significant amount of lateral pressure to the bushing and shaft, I needed to totally redesign the bearing support. It now has two stainless steel bearings, cupped seal, and a "E" clip holding everything securely in place. This will virtually eliminate any problems in the future. From discovery of the water to finished pump, took about 3 days.

The spark plug in picture #1 has a 10-40 thread and is manufactured by Paul Knapp, in Tempe, Arizona. There were several request as to what they looked like, now you know. Picture #2 shows the old cast connecting and the all new billet rod in the third picture. It is manufactured from 2024-T6 aircraft grade aluminum. This decision was made to withstand the added power and stresses encountered, with the supercharger installed. Another addition which is difficult to show are the mains bearing caps. Instead of "2 bolt mains" which is normally used,

each engine will now have "6 bolts mains" for support. There are 2 bolts on either side of the bearing surface and 2 cross bolts from the side of the block. This major modification will insure added strength, for supercharger operation.

The final picture is of the new breather cap that will come installed on each valve cover, with a small line going back to the bottom of the air cleaner.