

Hercules Engine News

By Glenn Karch

Look-Alike Niagaras



In the November 2002 issue of *Gas Engine Magazine*, there was an article about an original 2 HP Niagara brand engine sold by the Forano Co. and built at the Plessisville Foundry, Plessisville, Quebec, Canada.

These were Hercules "look-alike" engines. Just recently, one of the 2 HP petit motors came my way. It is no. 2750 and the fourth of 91 engines built at Plessisville in 1931. It provides a first-hand chance to get acquainted with the similarities and differences between the Hercules and Plessisville-built engines.

All of the 2 HP sizes use a block very similar to the Hercules 1-1/2 HP Model E. It still has the flared hopper lip and the main bearings set at an angle. A close look at the main casting shows many slightly different bumps and curves, as well as some machining differences. In all, the casting is slightly more crudely done.

As acquired, engine no. 2750 is missing a few parts and has had some rather mysterious repairs and alterations. The gas tank, an obvious replacement, has the ignition side fill hole plugged and a new connection fitted to the off side with what appears to be a later Jaeger vertical fuel fill spout. The tank was supported by a home-made strap bolted on with two different size bolts.

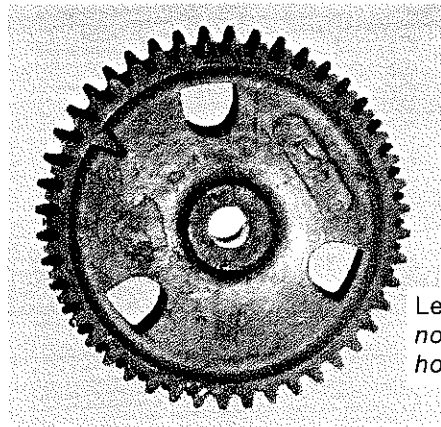
The moving joints and connections on this engine show very little wear, except where the siderod goes through the support on the head. For some reason, it is quite worn and undersize and

will require some rebuilding. Also, someone adapted automotive valves to the head. Both rocker arm supports had apparently broken off and were brazed back together. And, it has new steel grease cups on the mains that have never had grease in them. One has to wonder what went on in this engine's past life.

There are several parts missing, including the piston and rod, the rocker arm, the detent quadrant, the blade and arm, the magneto bracket, the magneto trip finger, the oiler pipe and oiler, and the muffler. Being a parts pack rat, I looked through my surplus parts and found everything needed except the magneto trip finger wedge and the detent blade.

Stay tuned, and next time we'll give a project progress report and supply more details of the small differences and oddities of this engine.

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Left: The timing gear's dimensions are normal, but the three normally round holes are "D" shaped, as shown.



Above: The flywheels are of thinner cross-section and the flywheel face is 1-1/4-inch rather than 1-1/2-inch. The flywheels are also lighter, allowing a faster speed of 650 rpm. The flywheels have only one clamping bolt and no brand or part number cast on them as the later engine in the November 2002 article. Rather than the word "spark" for timing stamped on the flywheel face like those built at Hercules, this engine has a timing line and the engine serial number is stamped on, as shown here.



Above: The main bearings in both the block and the caps have been rebabbitted in an odd manner, with the babbitt apparently poured around a replaceable bearing insert, thus partially melting the insert. One main bearing cap stud bolt was in upside down.