

# Hercules Engine News

By Glenn Karch

## Model S Changes



Near the end of production of the Model S Hercules gas engines in 1929, several changes were made to the basic engine block and its mechanical features. The pictures shown here are of a 1-3/4 HP Model S Hercules engine with a June 1, 1929, casting date on the block and serial number 374563 on the tag. This engine was purchased in the fall of 1929 by my grandfather, Jacob Karch, through his son-in-law (my uncle), Harold Miller, who was employed at the time by Servel, Inc., the parent company of Hercules Products.

At that time, only one 3-1/4-inch bore style of block was being cast, all Hercules, Jaeger and ARCO engines of that size using the same block casting. Model S Economy engines were no longer being produced, as Sears had opted to sell the newer style Model XK Economy engines through their catalogs starting in 1928.

Photo #1 shows a few interesting modifications. Close inspection reveals a 3/8-inch threaded hole just below the end of the detent blade. This is where the fuel spout brace attached on the 2 HP Jaeger brand engines. The oblong hole below the detent mechanism is where the governor arm on the throttling-governed Model SK Hercules engines went through to attach to the rod to the fuel mixer. The other feature is the two, long-headed bolts that hold the governor mechanism to the side of the block. Gone are the awkward-to-reach, slot-head screws that hid behind the flywheel rim on earlier engines. These newer bolts permitted the use of a 1/2-inch open-end wrench instead of an

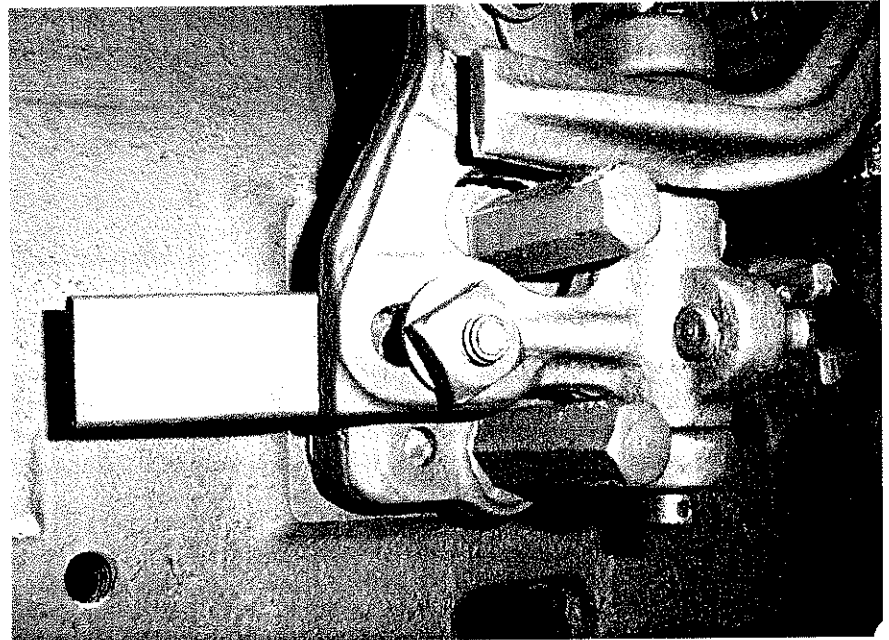


Photo #1: Threaded hole below detent blade and long-headed bolts securing governor mechanism.

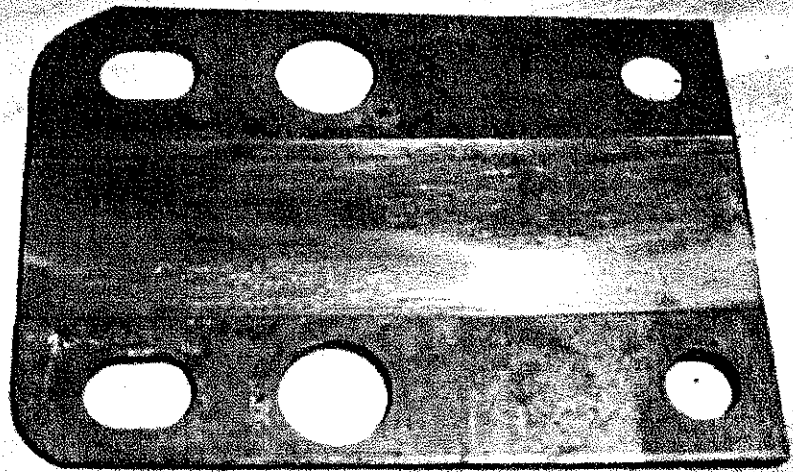


Photo #2: Reversible wear plate for governor bracket.

ill-fitting screwdriver. Additional clearances were made in the detent casting to allow enough room for the bolt heads.

Photo #2 shows a reversible wear plate that fit in between the

governor bracket and the side of the block. It is about 1/16-inch thick, and I assume that material had to be machined off the block where the governor mounts to accommodate the thickness o

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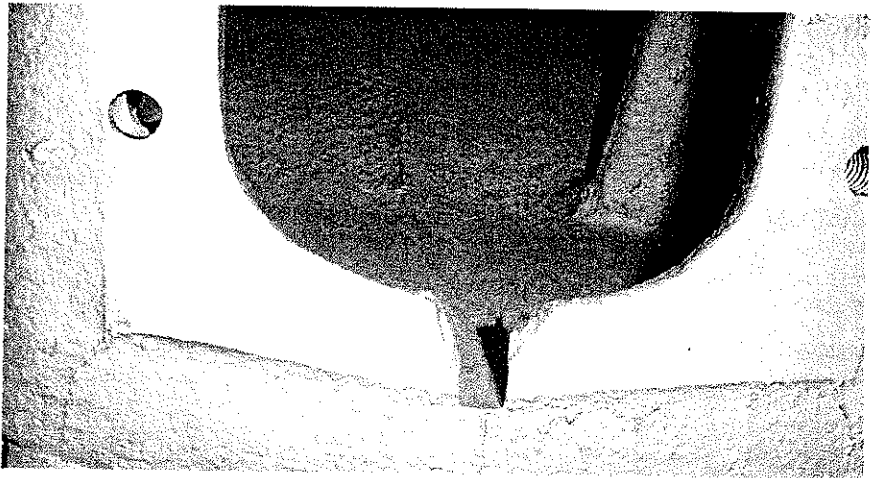
the wear plate. Before the use of this plate, the side rod would wear a groove directly into the side of the engine block surface, causing the side rod to gradually twist out of the correct position.

Photo #3 shows the rear of the crankcase area, and a notch that has been machined in the lip to allow accumulated oil to run out of the back of the base. The notch allowed excess oil to run out onto the ground instead of forming a puddle under the crankshaft.

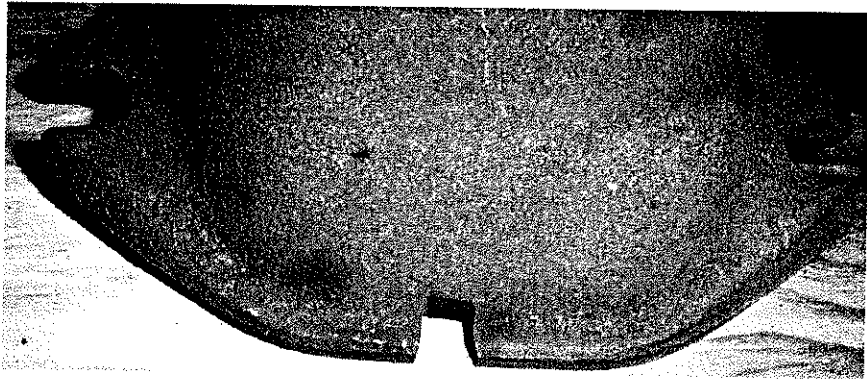
Photo #4 shows the Hercules crank guard with a corresponding notch machined into the lower lip to match up with the crankcase slot.

Hercules had been making engines of very similar design for 15 years by the time these modifications came about, and why Hercules waited until the end of production to make these changes is a curious point.

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*Photo #3: Notch machined in rear of crankcase to allow excess oil to run out of the back of the engine base.*



*Photo #4: Corresponding notch cut out of rear of crank guard to line up with notch in crankcase*