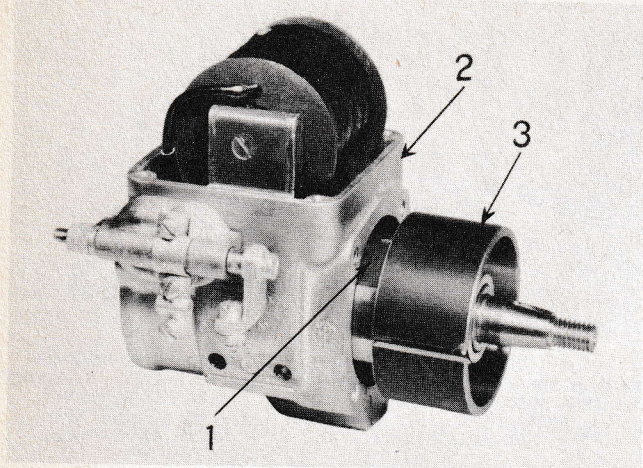


# BLUE RIBBON SERVICE

## Rotor Magnets and Rotor Bearings



ILLUST. 99--REMOVING MAGNETO ROTOR. REMOVE ROTOR (1) FROM MAGNETO FRAME (2). SLIDE KEEPER #57314 D (3) OVER ROTOR POLES BEFORE ROTOR IS COMPLETELY OUT OF FRAME.

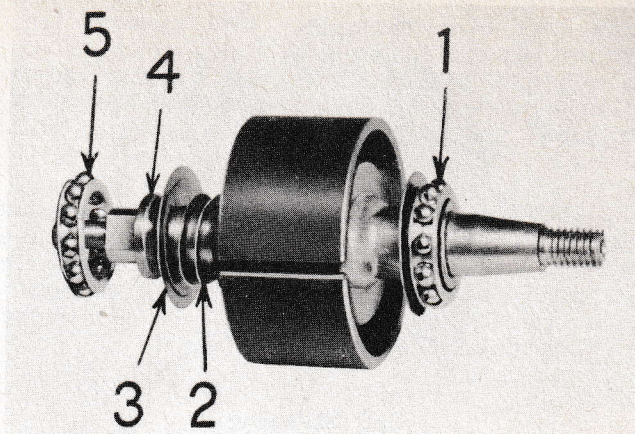
A new feature of the H-4 magneto is the combining of the rotor and the magnet which means that the magnet is the revolving part of the magneto. To remove the rotor and bearings it is necessary to remove the impulse coupling and mounting flange. Then slide the rotor magnet into keeper 57314-D (Illust. 99), as it is being removed from the magneto frame. Always have the rotor in the keeper when it is out of the magneto frame. Use extreme care to see that the rotor does not pick up dirt and metal particles. Keeper 57314-D is available as a service part.

Thoroughly clean rotor assembly and bearing races of the old grease and any grit. Re-greasing of the bearings should not be done until they have been checked for end play.

The bearings when assembled at the factory are preloaded .001 to .002 inches. The rotor should never have any perceptible end play if it is assembled properly. Old bearings and races should be assembled without disturbing shims (3) (Illustration 100). Should an end play check, (Illustration 101) reveal that end play is present, no attempt should be made to preload old bearings as this will cause rapid deterioration of the bearings. The recommended procedure when end play exists on old bearings is to replace them.

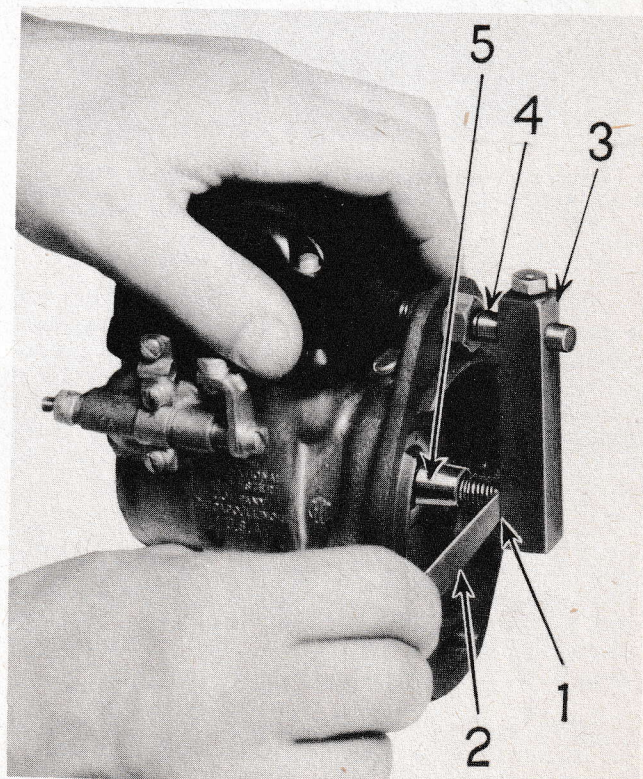
### Checking Rotor End Play

Place sufficient shims (2), Illust. 100, in back of the bearing race to allow a small amount of end play in the rotor



ILLUST. 100--H-4 ROTOR MAGNET WITH KEEPER, BEARINGS, AND SHIMS. 1--FORWARD BEARING. 2--ROTOR SHIMS. 3--INNER FELT RETAINER. 4--BEARING INNER RACE. 5--BEARING RETAINER WITH BALLS.

shaft after it is completely assembled and the mounting screws are tightened up (end play should be checked with no grease on the bearings). The end play may then be checked with a dial indicator or by making a device as shown in Illust. 101. Then check the end play between the fixture (3), and the end (1) of the rotor shaft (5) with a feeler gauge (2). Take two readings of the feeler gauge, one with the rotor as far one way as it will go, and the other with the rotor moved as far in the opposite



ILLUST. 101--CHECKING ROTOR END PLAY. 1--CHECKING POSITION. 2--FEELER GAUGE. 3--FIXTURE END PIECE. 4--FIXTURE MOUNTING BOLT. 5--ROTOR SHAFT.