

7. Turn coupling and rotor slowly in the counterclockwise direction (Diesel engine magnetos) until the breaker points just open. Now make another mark below the pointer on the drive member. (Turn all the other carbureted engine magnetos in the clockwise direction).

8. Measure the distance between the mark on the drive member. This distance should be .137" or between 1/8 and 3/16".

9. If points do not open within this range (1/8 to 3/16") remove breaker point, place the nail or pin in drive member, and turn cam on the shaft to bring the point of opening within the above range.

10. When checking clockwise magnetos, the second mark will appear to the left of the first mark instead of to the right, and should be within the same range, 1/8 to 3/16". The leading flat of the cam on these magnetos with key in place should be 25° 50' from the horizontal center line.

Be careful that every part of the rotor and bearings are perfectly clean, i.e., remove the old grease from the bearings, replace with new I.H.C. grease, and clean the rotor of any metal chips which may have adhered to it. Be sure to keep the rotor in the keeper 57514-D during these operations.

Slow rise cams are used in magnetos with serial numbers 180,001 to 181,000 and from 216,970 up. Clockwise magnetos 21342-D to 181,000 do not have cam key

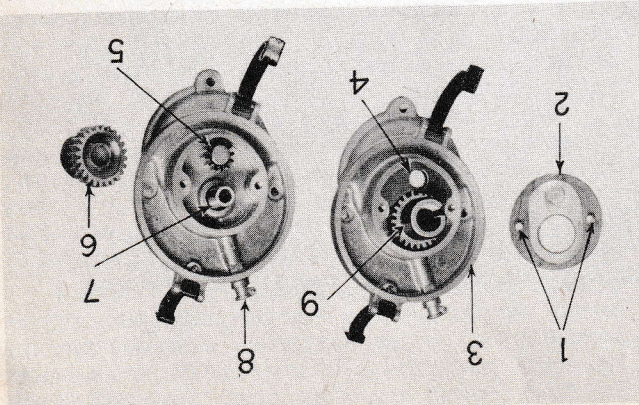
If cam is to be replaced on magnetos with serial numbers 220,001 to 220,956, remove or file off the cam key 21342-D in rotor shaft and place a new key in hole in opposite side of shaft. Then press new slow rise cam in position and check as outlined above.

Distributor Gears

Distributor gears are contained in a chamber which is part of the distributor body, (Illustration 105). This chamber is partially filled with I.H.C. magneto grease and sealed with felt washers around the hub of the gears. These seals and the consistency of the grease should prevent any possibility of the grease working out of the chamber.

To remove the distributor gear, first disassemble the distributor cap, the distributor rotor (Illustration 83) and the distributor gear chamber cover (2),

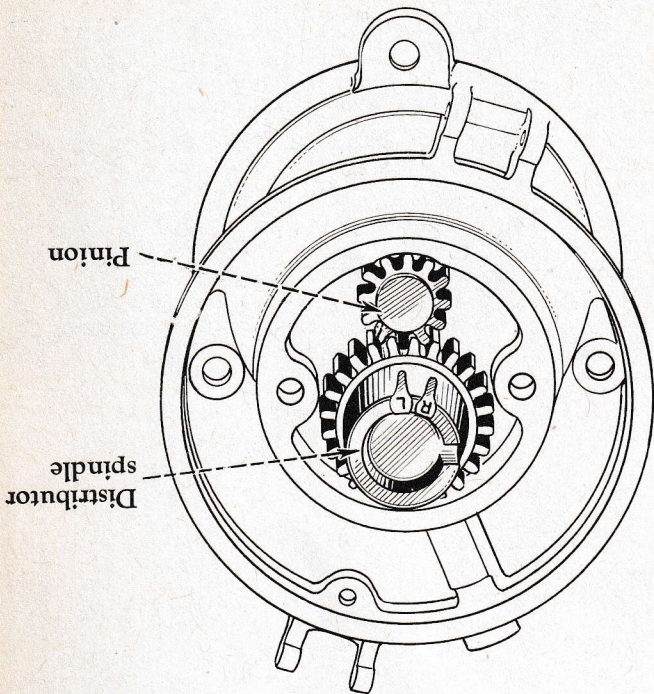
ILLUST. 105--DISTRIBUTOR GEAR ASSEMBLY. 1--CAPSCREWS (2) IN COVER. 2--GEAR CHAMBER COVER. 3--GEAR BODY. 4--BORE FOR DISTRIBUTOR PINION SHAFT. 5--DISTRIBUTOR PINION. 6--DISTRIBUTOR GEAR. 7--DISTRIBUTOR SHAFT. 8--DISTRIBUTOR BEARING OIL CUP. 9--DISTRIBUTOR SPINDLE.



Timing of Distributor Gear

Illustration 105. Now both the distributor gear and the distributor pinion may be removed.

The old distributor gear has two markings: (1) Counterclockwise rotation -- two teeth cut off at an angle, (2) clockwise rotation -- two teeth with ends partially cut away by a circular cutter. When assembling this type distributor gear to the pinion, set the two marked teeth straddle of the one marked tooth on the rotor gear pinion. The old



ILLUST. 106--NEWEST TIMING MARKS ON H-4 DISTRIBUTOR SPINDLE AND PINION. "R" -- CLOCKWISE MAGNETO. "L" -- COUNTERCLOCKWISE MAGNETO.