



## LYCOMING O-235, O-320, O-360 IMPULSE COUPLING DRIVE GEAR ORIENTATION

LYCOMING IMPULSE COUPLING Drive gears are  
ASYMMETRICAL and if installed incorrectly on Bendix Magnetos,  
the mag cannot be timed to the engine.

The following instructions with pictures are an aid to setting up  
the mag and drive gears correctly.

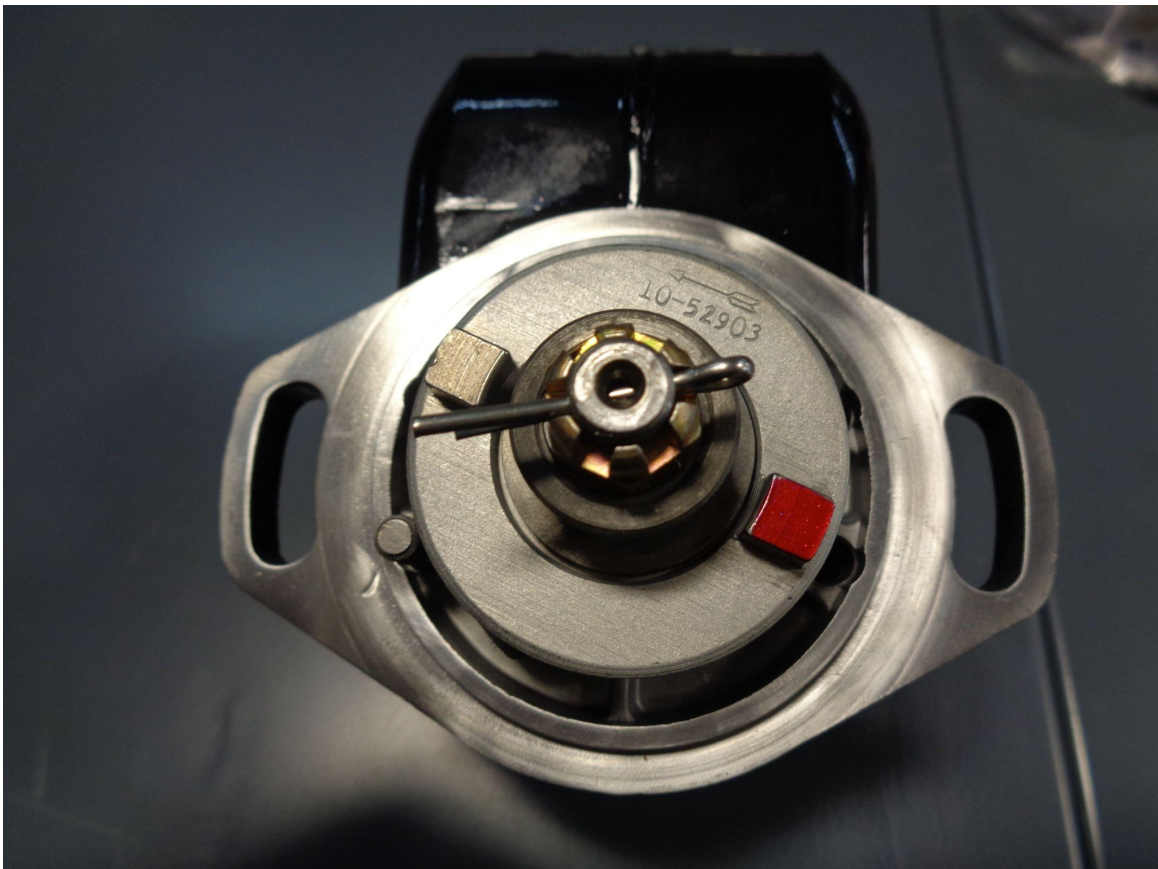
- 1) Remove the Timing Plug from the mag (located just above the  
Data Plate)



2) The mag direction of rotation is always viewed from the shaft of the magneto. Turn the mag backwards, (clockwise, so that we are not winding up the impulse coupling spring) until you see the RED PAINTED distributor gear tooth enter the timing window. Continue to turn the Shaft until you feel magnetic NEUTRAL (the mag will want to hold this position), and the RED PAINTED tooth will be offset in the window.



3) With the Mag on the bench, timing window facing the ceiling  
RED PAINTED TOOTH in the window, Shaft pointing at you,  
the Impulse Coupling body has Two raised areas that the  
Drive Gear engages. One is located at the 4 O'clock position  
and the other at the 10 O'clock position.





4) Now look at your P/N LW61665 Drive gear, place the gear upside down, such that you are looking at the underside of the gear that has the slot/ cutaway section. At the end of the cutaway you will see a SINGLE TOOTH on one end, and SPLITTING the teeth or VALLEY 180 degrees from the SINGLE Tooth Side.

**THIS GEAR IS ASYMMETRICAL.**



If you install the gear incorrectly you will not be able to time the MAG to the engine, because you will MAX OUT the Ear Slots on the mag BEFORE getting a POINT BREAK.

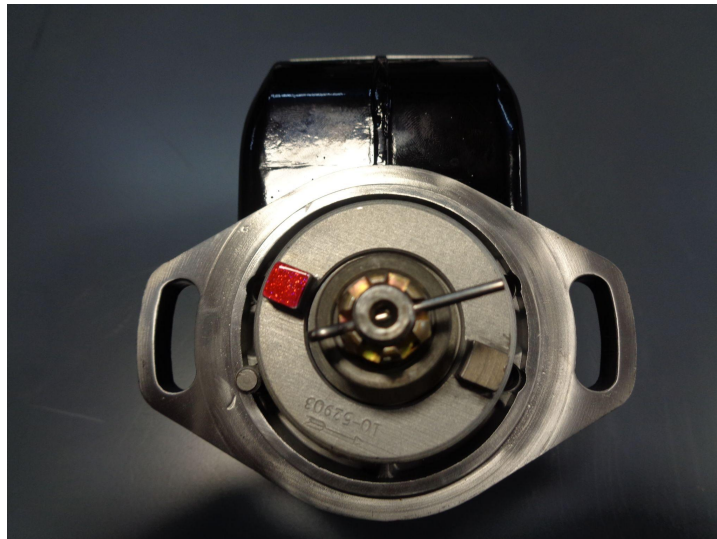
**5) INSTALL:**

The SINGLE TOOTH on the drive gear is installed at the 4 O'clock position. This orientation is correct for the LEFT MAGNETO.



6) With the gear in the correct orientation, install the bushing(must have the machined steel bushing P/N 10-163049, AD74-26-09), split washer, and nut. **TORQUE NUT TO 180-300 INCH/POUNDS**, install cotter pin. **Use Correct EARED mounting gasket.**

7) If this is a DOUBLE IMPULSE COUPLED SET UP,  
The Right impulsed coupled mag drive gear is installed with the SINGLE Tooth at the 10 O'Clock position



MAGNETOS ARE INSTALLED LEFT AND RIGHT AS  
VIEWED FROM **PILOTS** PERSPECTIVE

NOTE: COUNTER ROTATING ENGINES I.E.  
LO/LIO/ 320/360

THE GEAR INSTALL IS EXACTLY 180 FROM STANDARD  
ROTATION O/IO 320/360 ENGINES