

Merc 500-450-400-350-300 & Mark 58-58A-55A-35A

TDC - $.125 + \frac{1}{16}$

I. Timing and Linkage Adjustment

A. Upper Shift Shaft Adjustment (Figure 1)

When shift control lever is in forward gear, detent spring should be in the first notch of the shift control lever. If it is not, adjust upper shift shaft in the following manner:

1. Remove cotter pin from link rod.
2. Turn link rod to allow detent spring to catch in first notch.
3. Tighten lock nut on link rod.
4. Replace cotter pin.



Figure 1. Reverse Lock Adjustment

B. Timing Flywheel and Magneto Pulley

Flywheel has 2 markings. One is a straight line which times the motor to top dead center (TDC) when positioned with arrow on magneto driven pulley. Second is a straight line with an "O" stamped over it. (Figure 2) This is $.235''$ BTDC (before top dead center).

1. Rotate flywheel until timing mark (straight line stamped on rim) is in a straight line with center of crankshaft and distributor pulley center.

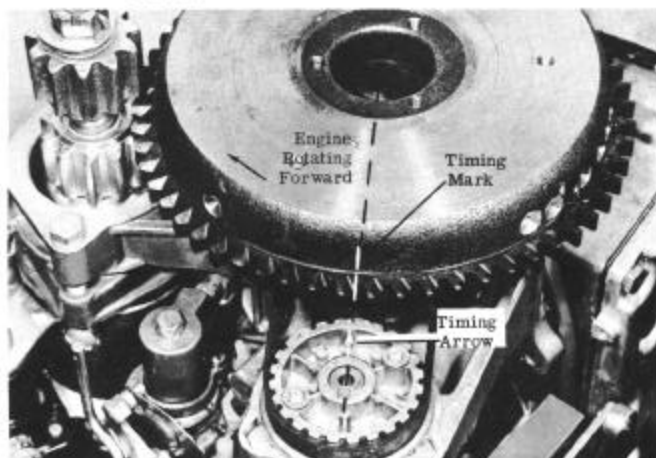


Figure 2. Flywheel and Magneto Pulley Timing

2. Position arrow on pulley to point at timing mark.

3. Replace timing belt, plate, cap screw and washers.

C. Installing Magneto

Magneto rotor shaft and shaft extension are splined with one blanketed spline on each shaft for easy installation.

1. With flywheel and pulley in position described in "B" preceding, install magneto on engine.
2. Rotate timing pulley until shaft sets in place. A $\frac{1}{16}''$ groove is located at end of shaft coupling in centerline of blanketed shaft to locate for easy installation.
3. Secure magneto to magneto adaptor with 4 head cap screws.

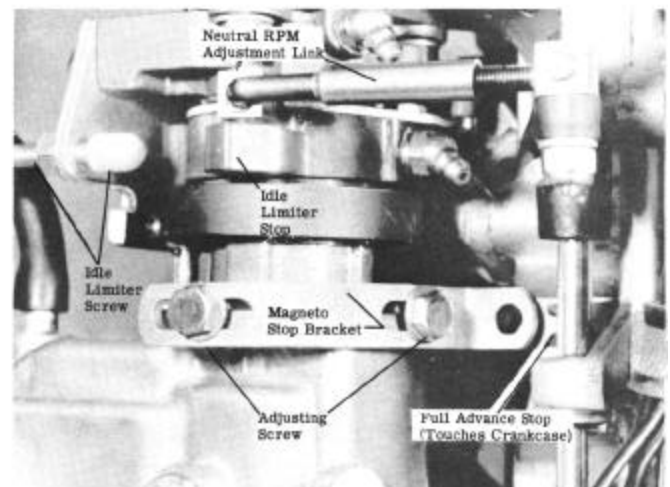


Figure 3. Magneto Stop Bracket Adjustment

D. Setting Maximum Spark Advance

1. Thread Timing Gauge (91-26916A1) into No. 1 spark plug hole.
2. Turn flywheel until No. 1 piston strikes Timing Gauge.
3. While turning flywheel, thread Timing Gauge in or out so that piston can "rock" over center shaft of gauge, indicating that Timing Gauge is set at top dead center (TDC) position.
4. Rotate flywheel clockwise $\frac{1}{4}$ turn.
5. Depress center shaft of Timing Gauge.
6. Rotate gauge shaft $\frac{1}{4}$ turn to seat on tool body shoulder ($.235''$ BTDC position). Be careful that tool body does not move, or preceding procedure will have to be repeated.
7. Rotate flywheel clockwise by hand until No. 1 piston strikes Timing Gauge center shaft. This is $.235''$ BTDC.
8. Attach one test lead of Timing Meter (91-22966) or Magneto Analyzer (91-25213) (on