

TIMING, ADJUSTING AND TESTING - MARK 30-30E

I. TIMING AND ADJUSTMENT

A. Check and Adjust Reverse Lock

Reverse lock lever must fully engage tilt pin in neutral and reverse gear. To adjust, bend actuating fork on reverse lock lever assembly to engage when shifted in neutral or reverse. (Figure 8)

B. Flywheel and Magneto Pulley Timing

Rotate flywheel until timing mark (stamped on rim) is in a straight line with center of crankshaft and distributor pulley center. Position arrow on pulley to point at timing mark and replace timing belt, plate, cap screw and washers.

(NOTE: 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. This is .235" BTDC (before top dead center). When this marking is in direct line with the center line of crankshaft and centerline of magneto shaft, the keyway of the magneto shaft should be on centerline of starter mounting hole bushing.

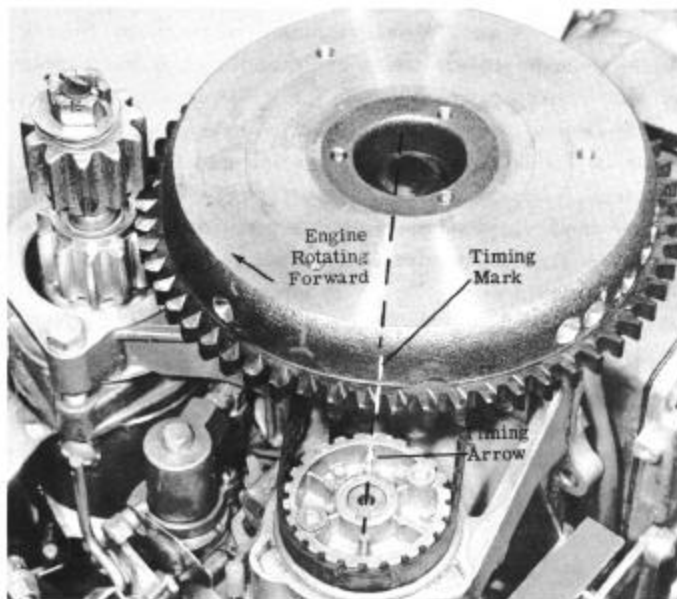


Figure 1. Timing Marks

C. Magneto Installation

1. Early Model Mark 30

To replace magneto, first place bell crank, pivot lever and attached parts in relative position with side of pivot lever marked "Top" to the top. After completing repairs to magneto, replace distributor cap and lead wires. Insert splined shaft of magneto into splined drive shaft in magneto adaptor with blanked spline on magneto shaft in

alignment with blanked spline of magneto drive shaft. Secure with 4 cap screws. It may be necessary to move linkage to get magneto shaft into adaptor housing. Set intermediate pivot lever post in recess at front of bottom cowl and secure with elastic stop nut. Place pivot lever with side marked "Top" on seat of bottom cowl and secure in place with 2 screws and lockwashers. Use open end wrench to replace front screw through opening above elbow in bottom cowl and socket wrench for rear screw.

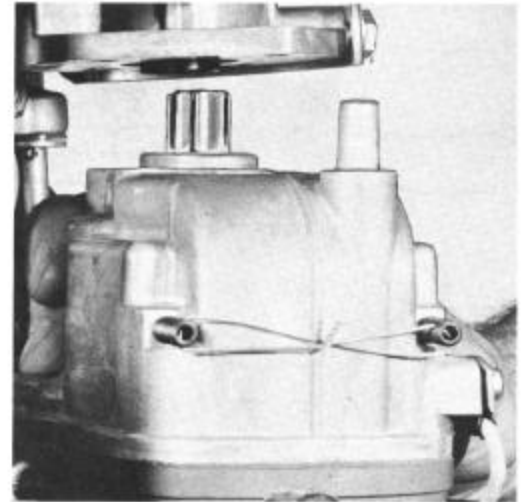


Figure 2. Installing Magneto On Engine

Linkage reassembly now is completed. Place magneto actuating bracket pivot post in nylon bushing of bell crank and secure bracket to magneto frame with 2 small screws and lockwashers. Attach grounding wire to magneto frame with self-tapping screw and nylon clamp, and terminal of grounding wire to primary ground terminal of magneto with 3/8" nut. Secure ground strap to crankcase bolt which was removed and replace magneto air ventilation hoses.

2. Mark 30 1-2-3-4 Models

To replace magneto after completing repairs, first replace distributor cap and lead wires. Insert splined shaft of magneto into splined shaft coupling in magneto adaptor with blanked spline on magneto shaft in alignment with missing spline of magneto shaft coupling. A 1/16" groove is located at end of shaft coupling in centerline of missing spline to locate for easy installation. Set mounting plate and link plate in position and secure to adaptor with 4 cap screws. Attach grounding wire to magneto frame with self-tapping screw and nylon clamp and terminal of grounding wire to primary ground terminal of magneto with 3/8" nut. Secure ground strap to crankcase bolt which was removed and replace magneto air ventilation hoses. Replace magneto limiter bumper and throttle actuator assembly on magneto adaptor and secure with 3 cap screws.