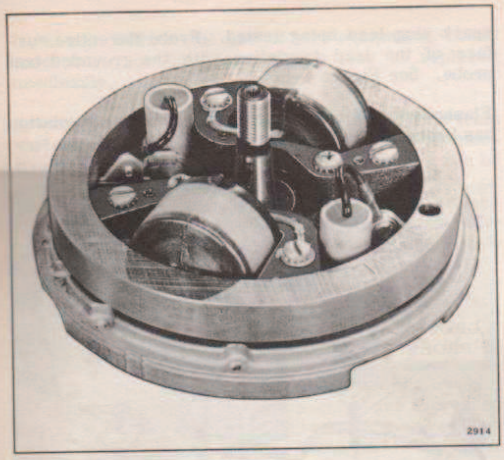

Figure 4-15. Coil Locating Ring

Alignment of the magneto coils will be simplified with the use of a coil locating ring (Special Tool #317001) machined to fit over the four bosses. See Figure 4-15.

NOTE

Do not connect breaker point leads until after making breaker point adjustments.

b. Make sure that a new oiler wick is installed under the forward coil. See Figure 4-6.

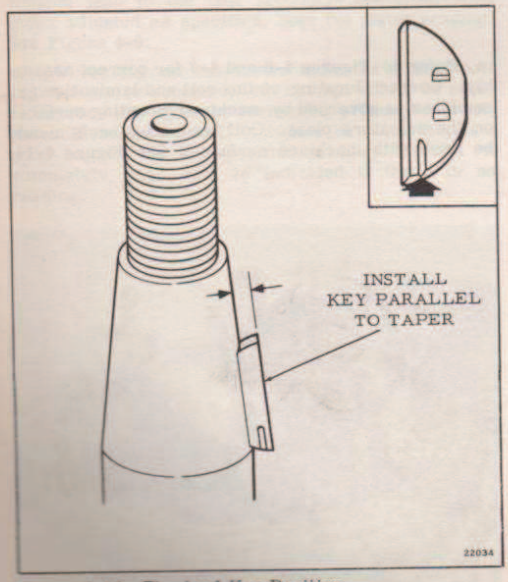

Figure 4-16. Flywheel Key Position

*Trade Mark

REASSEMBLY OF MAGNETO TO MOTOR

a. If flywheel key has been removed, reassemble to crankshaft with outer edge parallel to taper. See Figure 4-16.

NOTE

Be sure that the single upset mark on the side of the key is facing down. See Figure 4-16. Incorrect installation of the key will affect cam position and ignition timing.

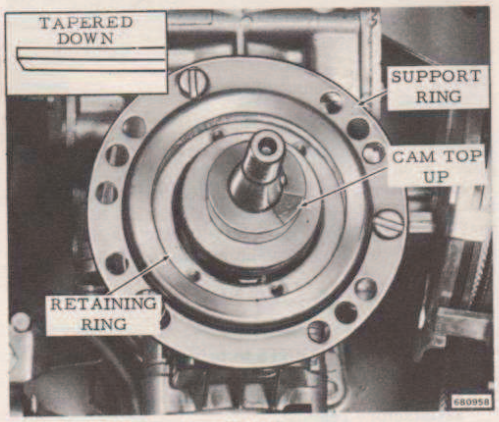

Figure 4-17. Armature Plate

b. Install cam, making certain that side marked "TOP" is up. See Figure 4-17.

c. Apply a coat of OMC Sea-Lube* Moly Lube to the armature plate support ring, retaining ring, and bushing in armature plate. Install retaining ring with tapered side down, and support ring. Align retaining ring to correspond to the position of the armature plate. See Figure 4-17. DO NOT add oil or grease to the oiler wick on the magneto.

d. Place the armature plate in position over the crankshaft, using care to avoid damaging the breaker arms on the cam. Make sure that throttle cam follower is not caught under throttle control cam. See Figure 4-18. Tighten the four Phillips head screws. See Figure 4-6.

e. Connect armature plate link to throttle lever. See Figure 4-3.

BREAKER POINT ADJUSTMENT

a. For breaker point adjustment, armature plate must be assembled to motor with flywheel removed.

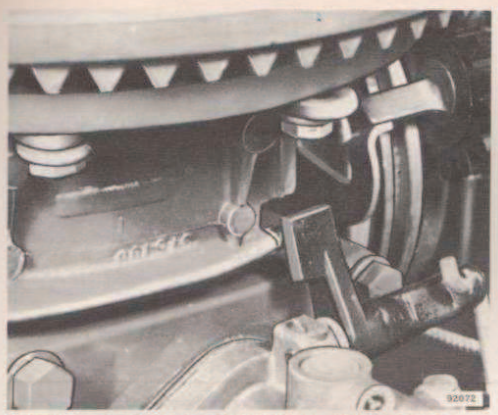

Figure 4-18. Throttle Control Cam and Follower

b. Disconnect all leads from breaker point assemblies. Connect meter or test light between breaker plate and forward breaker point screw terminal. See Figure 4-19. Fully advance throttle lever to Fast position.

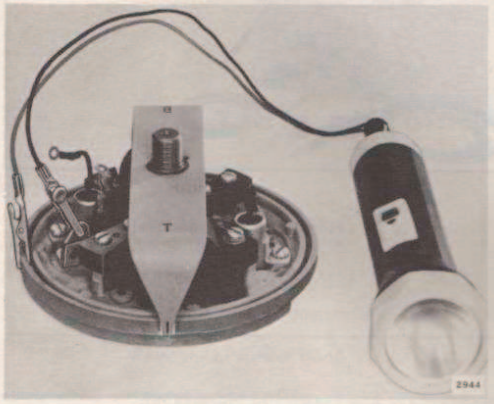

Figure 4-19. Connections for Checking Timing

c. Place timing fixture (Special Tool #383603) on crankshaft. Rotate the crankshaft clockwise so that the side of the fixture marked "T" (top) is aligned with the first projection on the armature plate. See Figure 4-19.

NOTE

To avoid water pump impeller damage rotate the crankshaft in a clockwise direction only.

d. Move the timing fixture slowly clockwise until the exact instant at which the points open is determined, as indicated on the light (light goes out) or meter. The points should break open when the timing fixture is midway between the two projections on the armature plate.

e. If timing is not correct, rotate the timing fixture clockwise one complete turn and align the timing fixture between the timing marks. Adjust points until the meter or light just indicates an open circuit. See Figure 4-20.

NOTE

If new breaker points have been installed, adjust points to break open at the first timing mark to allow for seating of the fibre breaker block.

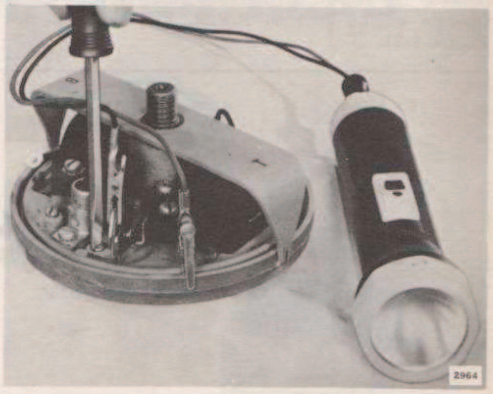

Figure 4-20. Adjusting Breaker Points

f. Recheck timing as described in (d) above.

g. If timing light or meter is not available, use a feeler gage to adjust breaker points. Point gap should be set to .020 inch (.022 inch for new points) with the breaker arm on the high lobe of the cam (full open).

h. Rotate crankshaft through 180° clockwise, and repeat entire procedure for second set of points.

i. Check crankshaft and flywheel tapers for any traces of oil. This assembly must be perfectly dry-swab tapered surfaces with solvent and blow dry with compressed air. Inspect both tapers for burrs or nicks.

NOTE

DO NOT permit solvent used to clean tapers to wash oil out of oiler wick.

j. Replace flywheel but do not torque nut. Check for spark on each cylinder by connecting the spark plug high tension leads to a spark checker (Stevens Experimental Co. Part #S-21 or S-13), gap set to 1/4" and cranking the engine. If spark jumps gap, tighten flywheel nut to torque specified in Section 2.

k. Connect the high tension lead wires to the spark plugs. Make sure that the spring clips in the spark plug lead covers make firm contact with the spark plug terminals. See Figure 4-2.

l. Attach high tension lead anchor. See Figure 4-3.

m. Check throttle cam adjustment as described on page 3-8.

n. Start motor and check timing with timing light. Each breaker point setting must be such that, when checked with a timing light connected to each high tension lead, the flywheel timing mark must line up between the two index marks on the armature plate. Operate engine at 1000 R.P.M. for this test. See Figure 4-21.

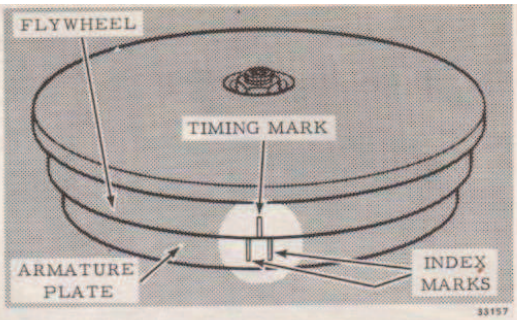

Figure 4-21. Checking Timing with Engine Running

Figure 4-22. Ignition Analyzers

NOTES