

MERC 350 (2-CYL.)

MERC 350 1964		MERC 350 1965	
Merc Model	Serial No.	Merc Model	Serial No.
350	1571114 thru 1812753	350	1812754 and up

I. IGNITION DATA

DESCRIPTION	MERC 350
Firing Order	Alternate Firing
Spark Plug, Standard Installation	J6J
Spark Plug Gap	.025" (0.6350mm)
Timing	.222" (5.6388mm) (32°) B.T.D.C.
Breaker Point Setting	.020" (0.5080mm)
RPM, Maximum Recommended	5200

II. TIMING AND SYNCHRONIZING BREAKER POINTS

1. Remove flywheel.
2. Set No. 1 breaker assembly at .020" (0.5080mm).
3. Install .222" (5.6388mm) Timing Gauge (C-91-32253A1) in No. 1 spark plug hole.
4. Turn crankshaft until No. 1 piston lightly touches timing gauge.

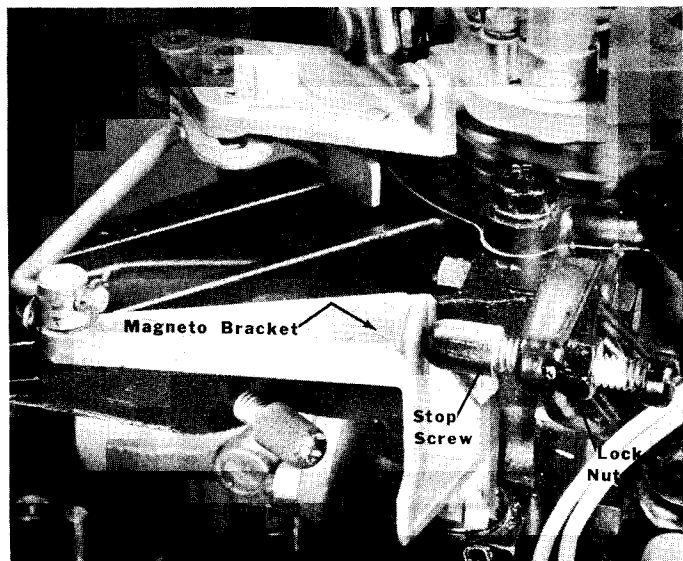


Figure 1. Stop Screw against Magneto Bracket

5. While turning crankshaft, 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 position.
6. Rotate crankshaft clockwise ¼ turn.
7. Depress center shaft of timing gauge and rotate ¼ turn to seat on tool body shoulder (.222" [5.6388 mm] BTDC position). *Note: Be careful that tool body does not move, or preceding procedure will have to be repeated.*
8. Rotate crankshaft clockwise until No. 1 piston

- strikes timing gauge center shaft. This is .222" (5.6388mm) BTDC.
9. Set Magneto Analyzer (C-91-25213) selector switch on No. 2 (resistance) or, employing Continuity Meter (C-91-22966), attach one small test lead to stator plate (ground) and second small test lead to terminal of breaker point.
10. Advance magneto until breaker points open, as indicated by tester used.
11. Hold magneto at this position, adjust stop screw to contact magneto bracket and tighten stop screw lock nut. (Figure 1)
12. Move small test lead from first breaker point and attach to No. 2 breaker point terminal.
13. Install .222" (5.6388mm) Timing Gauge (C-91-32253A1) into No. 2 spark plug hole.
14. Set No. 2 piston at .222" (5.6388mm) BTDC.
15. With magneto in full advance position, adjust No. 2 breaker point assembly until it just starts to open as indicated by tester used.
16. Recheck settings on No. 1 and No. 2 breaker points to be sure adjustments are correct.
17. Reinstall flywheel and torque flywheel nut to 65 ft. lb. (8.97 mkg)
18. Reinstall two (2) screws which were removed previously from flywheel ratchet and torque to 150 in. lbs. (26.625 kg/cm)
19. Adjust stopblock in bottom cowl to permit magneto stop to just touch maximum spark advance screw. This prevent overloading of magneto and throttle linkage. (Fig. 2)

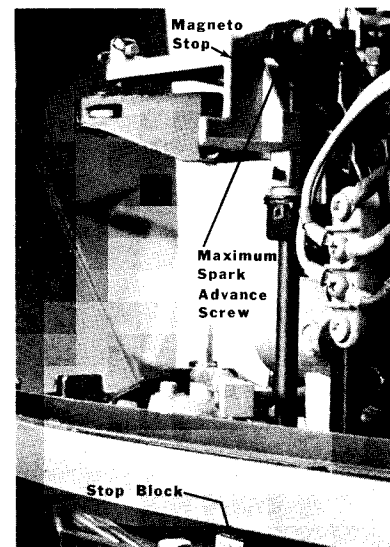


Figure 2. Stop Block Adjusted in Bottom Cowl

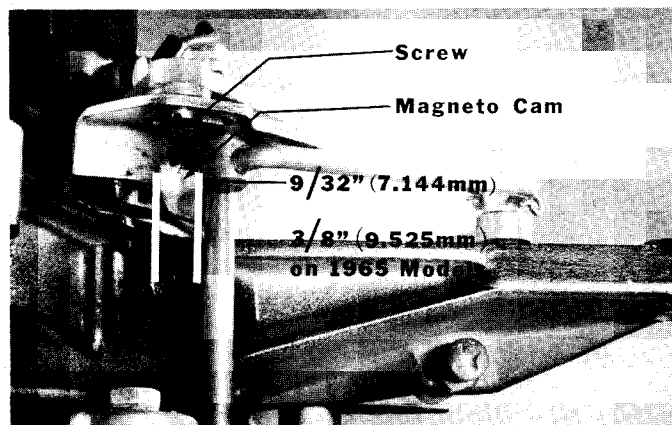


Figure 3. Magneto Cam Adjustment