TIMING, ADJUSTING, TESTING
MERC 800 DIRECT REVERSING

I. IGNITION DATA

Cylinder Firing Order:	1-4-5-2-3-6
	Coil No. 1 fires cylinders 1-5-3
	Coil No. 2 fires cylinders 4-2-6
Spark Plug Type:	J4J - - Standard Installation*
	XJ4J - Resistor Type§
Spark Plug Gap	: .025"
Timing	: .235" BTDC (Before Top Dead Center)
RPM	: 5200 Maximum Operating

** See Note No. 1 on P. 70 § For static elimination on radio or radio-telephone equipped boats.*

II. TIMING AND LINKAGE ADJUSTMENT

A. Flywheel and Distributor Pulley Timing

1. Rotate flywheel until timing mark (arrow) stamped on rim is on line between crankshaft and distributor pulley center. *(No. 1 piston then is 20° after top dead center in forward direction.)*
2. Arrow on distributor pulley should be pointed toward timing mark on flywheel. (Figure 1) If it is not, remove timing belt and turn pulley to correct position.

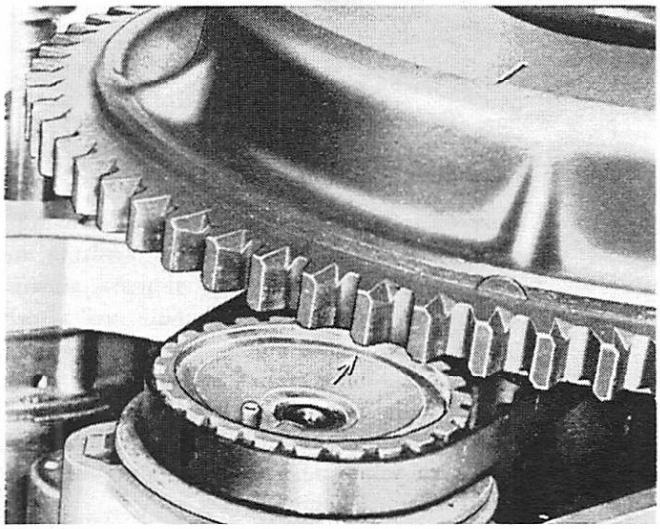


Figure 1. Timing Marks on Flywheel and Pulley

B. Distributor Drive Coupling

1. When distributor is reassembled to engine, wheel and distributor pulley should be aligned as above.



2. The offset face tang at drive end of distributor shaft should point forward (direction engine will travel when distributor is bolted in place). (See drawing at left.)
3. The offset face of the tang is considered the timing mark. (Figure 2)
4. Drive shaft spring is located in ground out portion which is closest in line with timing belt pulley keyway. This spring has to line up with ground off portion of distributor drive tab before assembling distributor to distributor pilot assembly.
5. Secure distributor adaptor with 4 hex head cap screws.

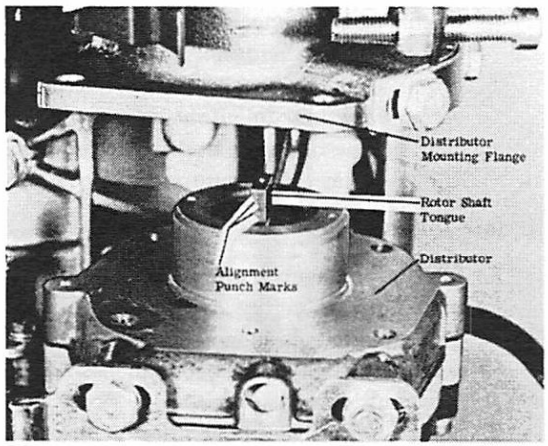


Figure 2. Timing Mark on Offset Tang Face

C. Maximum Spark Advance -- Forward

1. Position distributor with side high tension lead facing approximately forward.
2. Place No. 3 piston at .235" BTDC (before top dead center) by rotating flywheel in a clockwise (forward) direction from BDC (bottom dead center).
3. Thread Timing Gauge (91-26916A1) into No. 3 spark plug hole. (Figure 3)
4. Turn flywheel until No. 3 piston strikes Timing Gauge.
5. 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 position.
6. Rotate flywheel clockwise ¼ turn.
7. Depress center shaft of Timing Gauge and rotate ¼ 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.
8. Rotate flywheel clockwise until No. 3 piston strikes Timing Gauge center shaft. This is .235" BTDC.
9. Connect one test lead of Timing Meter (91-22966) or Magneto Analyzer 91-25213 (selector switch, on No. 2, Distributor Resistance) to white lead (No. 1 coil primary) at terminal block and connect second lead of timing unit to distributor frame.
10. Advance distributor slowly until point breaks, as indicated by timing unit used.