

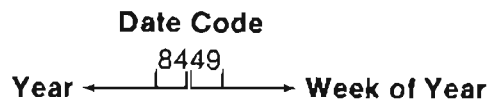
CIRCULATE TO:  
 SERVICE MANAGER   
 PARTS MANAGER   
 MECHANICS   
 "Place in a Service  
 Bulletin Binder"

- A. 50 Amp Circuit Breaker, P/N 88-11178
- B. Fuel Pump Inlet and Outlet Fitting Torque - All Models
- C. Water Testing New MerCruiser Engines - All Models
- D. Timing Window in Flywheel Housing - MCM 120MR/140MR/200MR/230MR/260MR Driveshaft Extension Models, MCM 330 (B-W) and MIE 230/260/340

**A. 50 AMP CIRCUIT BREAKER, P/N 88-11178**

There is a possibility that there are some defective breakers in the field. If so, then the **50 amp** circuit breaker (on the engine), will cause the engine to have an interruption of the ignition system while running, similar to someone turning the key switch on and off. If this should occur, look at date code on circuit breaker.

If **50 amp** circuit breaker has a date code of 8449 or lower, replace it with part number 88-11178.



**B. FUEL PUMP INLET and OUTLET FITTING TORQUE - ALL MODELS**

When installing the inlet or outlet fitting in all fuel pumps, care must be taken so that pump casting is not cracked because of over-tightening. Use the following procedure.

1. Coat threads of fitting with Loctite pipe sealant with teflon. (DO NOT use teflon tape.)
2. Torque fitting to specification listed.

<b>MCM 120/140:</b>	95-130 Lbs. In. (11-14 N.m)
<b>MCM/MIE 470/MCM 485/488 with Low Volume Carter Fuel Pump (Filter Facing Upward):</b>	95-130 Lbs. In. (11-14 N.m)
<b>MCM 470/485/488 with High Volume Carter Fuel Pump (Filter Facing Downward):</b>	10-18 Lbs. Ft. (14-24 N.m)
<b>All V-6 and V-8 Models:</b>	10-18 Lbs. Ft. (14-24 N.m)

**C. WATER TESTING NEW MERCUISER ENGINES - ALL MODELS**

Care must be exercised during the first 20 hours of operation on new MerCruisers or possible engine failure may occur. The following 20 hour break-in period procedure is in all "Operation and Maintenance Manuals" that come with each MerCruiser Power package:

**20-HOUR BREAK-IN PERIOD**

The first 20 hours of operation is the engine break-in period. During this period, it is extremely important that the engine is operated, as outlined in the following information. **Proper break-in is essential to obtaining minimum oil consumption and maximum engine performance and service.**

1. DO NOT operate engine below 1500 RPM for extended periods of time during the first 10 hours. During this period, shift into gear as soon as possible after starting engine and advance throttle so that RPM is above 1500 (provided that conditions permit safe operation at this speed).
2. DO NOT operate at any one constant speed for extended periods of time.
3. DO NOT exceed  $\frac{3}{4}$  of full throttle during the first 10 hours of operation. During the next 10 hours, occasional operation at full throttle (5 minutes at-a-time maximum) is permissible.
4. AVOID full throttle acceleration from stopped position.
5. DO NOT operate at full throttle until engine reaches normal operating temperature.
6. OBSERVE INSTRUMENTATION carefully. If an abnormal reading occurs, stop engine immediately and determine cause.
7. FREQUENTLY CHECK crankcase oil level and add oil if necessary. It is normal for oil consumption to be somewhat high during the break-in period.
8. At end of 20-hour break-in period, drain break-in oil from crankcase and replace oil filter. Fill crankcase with correct grade and viscosity oil.

If a new engine has to be water-tested at full throttle before the break-in period is complete, follow this procedure.

1. Start engine and run at idle RPM until normal operating temperature is reached.
2. Run boat up on plane.
3. Advance engine RPM (in 200 RPM increments) until engine reaches its maximum rated RPM.

**IMPORTANT: DO NOT run at maximum RPM for more than 2 minutes.**

**D. TIMING WINDOW IN FLYWHEEL HOUSING - MCM 120MR/140MR/200MR/230MR/260MR DRIVE SHAFT EXTENSION MODELS, MCM 330 (B-W) and MIE 230/260/340**

Later production models have a rear timing window in the flywheel housing so that ignition timing can be checked or set from either end of the engine. There is only one mark (8° BTDC, 6° BTDC 140 only) in the flywheel. Starting serial number of engines so marked are:

<u>Models</u>	<u>Serial Numbers</u>
MCM Models with Drive Shaft Extension Kit	Unknown
MCM 330 (B-W)	6920832
MIE 230 L.H.	6922334
MIE 230 R.H.	6863852
MIE 260 L.H.	6901974
MIE 260 R.H.	6902087
MIE 340 L.H.	6812630
MIE 340 R.H.	6812740

**IMPORTANT: Replacement of flywheel, flywheel housing or timing chain cover will affect accuracy of rear timing mark.**

In production, the end of the crankshaft is stamped with a "O" to index crankshaft to flywheel dowel hole prior to installing drive plate. The engine is then manually turned (in normal engine rotation) until timing mark (on front) comes up to 8° BTDC, 6° BTDC 140 only (firing) on No. 1 piston.

After the flywheel housing is installed, a center punch mark is placed into the flywheel, in line with flywheel housing cast pointer near the ring gear base. The pointer and punch mark are then marked with "white" ink line.