MERCRUISER SERVICE BULLETIN

Section: XII *(Bulletins)*
Number: 68-7-02
Date : 2/20/68

Cut individual items along broken lines and attach in appropriate sections of your MerCruiser Service Manual.

A. MERCRUISER 80 CARBURETOR LEAN-OUT

(For P. 61 of Fuel System & Carburetion Section VII)

A carburetor lean-out condition has been found to exist on some MerCruiser 80 engines (Serial No. 2229299 and below) at a point prior to when the boat planes (approximately 1000 to 2500 RPM).

This condition may be caused by the extreme horizontal angle at which the engine is placed prior to planning, due to the riding characteristics of the boat. The extreme angle affects the fuel level in the carburetor float bowl and causes insufficient fuel flow thru the main metering jet.

The following items should be checked if the above condition is found:

1. Carburetor idle adjustment and speed
2. Presence of dirt or water in carburetor float bowl
3. Float setting
4. Accelerator pump operation

If none of the preceding items is found or is out-of-adjustment and lean-out condition still exists, it is recommended that a Carburetor Reversal Kit (Part No. B-48567A1) be installed on the engine. This kit -- for MerCruiser 80 engines with Serial No. 2229299 and below -- contains all the parts required to rotate the carburetor 180°.

B-48567A1	Carburetor Reversal Kit	$22.60 U.S. List

B. MERCRUISER ENGINE OVERHEATING - 120, 150 and 160 Models

(For P. 54E of Miscellaneous Section X)

Occasionally a report is received of overheating on a new MerCruiser 120, 150 or 160 engine (aluminum manifold model) when the engine is operated at idle speed for prolonged periods or during slow speed operation (under 1200 RPM) after the engine is first started. Acceleration usually cools the engine to normal operating temperature, but overheating reoccurs again at slow speed.

If an overheating condition is encountered, the entire cooling system should be checked for obstructed hoses and water passages, worn water pickup pump or impeller, loose circulating pump drive belt and/or inoperative thermostat. If all of these items are found to be in order and overheating condition still exists, it is recommended that a High Capacity Cooling Kit (Part No. B-47587A1) be installed on the engine. This kit is for MerCruiser 120, 150 and 160 engines with aluminum manifolds only.

B-47587A1	Hi Capacity Cooling Kit	$22.95 U.S. List

C. CRANKCASE VENT BAFFLE KIT - 110 and 120 Models
(For P. 29 of Engine Mechanical Section VIII)

A Crankcase Vent Baffle Kit (Part No. B-45369A1) is available for installation on all MerCruiser 110 engines and MerCruiser 120 engines, Serial No. 2220847 and below. Installation of this kit will eliminate the possibility that crankcase oil will be carried over to the carburetor via the crankcase breather hose which extends from the valve cover to the carburetor.

If a complaint of abnormal oil consumption in one of the above engines is received, the engine first should be checked externally for oil leaks from a loose oil pan, front cover gasket or damaged rear main oil seal before installing the Crankcase Vent Baffle Kit.

After installation of the Crankcase Vent Baffle Kit, additional checks then should be made by running the engine in normal driving habit for an additional 20 hours, to determine if oil consumption still exists, before proceeding with more extensive repairs, such as re-ringing the engine.

Refer to MerCruiser Service Bulletin Section XII, No. 67-12, "OIL CONSUMPTION - 4 CYCLE ENGINE".

B-45369A1	Crankcase Vent Baffle Kit	$3.10 U.S. List

D. MERCRUISER 120 ENGINE VIBRATION
(For P. 3 of Engine Mechanical Section VIII)

Reports have been received of a high-frequency vibration occuring on some MerCruiser 120 engines (with cast iron manifolds) between approximately 1000 and 2500 RPM. This vibration is quite noticeable when observing the slave starter solenoid, which is mounted under the manifold, and placing a hand on the flame arrestor while gradually increasing the throttle setting over the range of approximately 1000 to 2500 RPM. This vibration also may cause the slave starter solenoid bracket to break, wires which are connected to the slave solenoid to break at the terminals and/or carburetor parts to become damaged.

Vibration will occur if the nuts, which fasten the manifold to the cylinder head, loosen from compression of the manifold to head gasket. If an engine with this vibration or damage is found, the following steps should be taken:

1. Remove manifold and replace manifold-to-head gasket (Part No. B-27-52546).
2. Replace original manifold attaching nuts with new lock nuts (Part No. B-11-49910). When using these nuts, DO NOT use flat washers and lock washers which were used previously. Tighten nuts evenly and securely, starting in the center and working out toward ends.

It also is recommended that the manifold attaching nuts be checked at the time of the "20-Hour Check" and when performing engine tuneup service.

E. METRIC HELI-COIL KITS FOR MERCRUISER 60 and 80
(For P. 13 of Tool Section XI)

A 7mm and an 8mm heli-coil kit now is available for use on the MerCruiser 60 and 80 engine block assembly. Each kit consists of a tap, installation tool and 12 inserts.

C-91-48778	7mm Heli-Coil Kit	$12.05 Net U.S.
C-91-48779	8mm Heli-Coil Kit	$10.95 Net U.S.

F. MERCRUISER 60 AND 80 TACHOMETER NEEDLE FLUTTER

(For P. 6C of Installation Section II)

If tachometer needle flutter or unsteady readings are found on a MerCruiser 60 or 80 tachometer, it is important that the items, below, are checked and adjusted prior to replacing the tachometer. The tachometer may not be defective, and the same condition may exist with the new tachometer if the following items are not as specified:

1. Breaker point spring tension should be set at 32 inch ounces with Spring Tension Scale (Part No. C-91-28993).
2. Spark plug gap should be set at .025", and plugs must be in good condition.