mercruiser
STERN DRIVES & INBOARDS

service bulletin

TO: SERVICE MANAGER ☐ MECHANICS ☐
PARTS MANAGER ☐

No. 86-11

A. Oil Leaks on MerCruiser 120/140 Stern Drive Engines.
B. High Volume Fuel Pump to Fit 120/140/2.5/3.0 Liter Stern Drive Engines.
C. MerCruiser Serial Number Changes
D. New Flywheel/Engine Coupler Torque

A. OIL LEAKS ON MERCRUISER 120/140 STERN DRIVE ENGINES.

MerCruiser has received inquiries from some of our boat manufactures and dealers expressing concern regarding oil leaks on 120/140/2.5 and 3.0 liter engines. MerCruiser can appreciate the concern and would like to outline the steps that have been taken to alleviate the problem.

MerCruiser has been working with General Motors for some time in seeking a resolution to this problem. While investigating this problem it was found the overwhelming majority of oil leaks were the result of oil pan gasket leakage, not the rear seal. The original 2-piece pan gasket set that GM was using suffered from 3 major problems: 1) The 2-piece design was prone to leakage where the gaskets butted against the rear end seal, 2) overtorqing of the oil pan screws would split the gasket and cause a leak; and 3) There was insufficient "crush" (contact) in certain areas of the gasket to provide a good seal. GM and MerCruiser have initiated a 3-step corrective action program.

Step 1: As an interim measure, in October of 1985 GM started using RTV sealer on the oil pan gaskets and end seals. In conjunction with this MerCruiser exercised much tighter control over the torque applied to the oil pan screws to prevent gasket splitting.

Step 2: In January 1986 GM implemented a new 2-piece "high swell" gasket. This gasket was designed to swell up when exposed to oil, in turn sealing off small openings which could leak.

Step 3: In May of 1986 a new 1-piece silicone rubber gasket was implemented. The 1-piece design eliminates the potential for oil leakage between the gaskets and rear end seal. Spacers are used around each oil pan screw in the gasket to prevent damage from overtorque. This gasket will also be used as a replacement part on older models. The P/N for the new 1-piece pan gasket is 27-14901.

In conjunction with the new gasket GM also made some manufacturing changes to the oil pan to ensure proper "crush" on the new gasket.

Although, the rear crankshaft seal seems to be the cause in only a minority of cases of oil leaks, GM is contemplating some changes in this area on future engines. We will keep you advised of these changes.

B. HIGH VOLUME FUEL PUMP - MCM 120/140 /2.5/3.0 Litre.

MerCruiser Service has received calls concerning vapor locking on MCM 120/140/2.5/3.0 Litre engines. To help correct this problem a new high volume fuel pump is available.

The kit consists of a fuel pump, gasket, a new fuel line between the pump and the carburetor, and fittings. The P/N for the complete kit is 42725A5. This kit will back fit earlier model 120/140/2.5/3.0 Litre engines and will be factory installed in August of 1986.

Any 120/140/2.5/3.0 Litre engine experiencing vapor lock that is still in the warranty period the kit will be installed at no charge. (Warranty Labor Allowance .5 Hours).

C. MERCRUISER SERIAL NUMBER CHANGES

Prior to 1985 all MerCruiser products were issued a seven digit serial number. All seven digits were numerals, example 5362148. Because our seven digit system using numerals was exhausted in 1985 a change was made to a six digit system using six numerals and a letter prefix "A", example A421791. The "A" prefix serial numbers being higher than the 7 digit numbers. Presently the "A" prefix has been exhausted so the prefix "B" will be used. All "B" serial numbers will be higher than "A" serial numbers. We will continue to use letters in alphabetical order. The letter prefix has no reference to the year model of the product.

D. NEW FLYWHEEL/ENGINE COUPLER TORQUE

1986 MerCruiser engines, models 120/140/185/200/205/230/260/300 Tempest/350 and 454 Magnums were produced with a new design, flex plate style, engine coupler. The new torque specifications for the coupler and flywheel are as follows:

Coupler to Flywheel - 35 lbs. ft. (42 N.m) with "Type A" Loctite Applied to Threads of the Bolts.
Flywheel to Crankshaft - 70 lb. ft. (95 N.m)