OUTBOARDS Service bulletin

NUMBER: 84-13

- A. Model V300/V3.4 Litre Flywheel Torque
- **B.** Serial Numbers
- C. Spark Plug Fouling Model V150 and V200

A. MODEL V300/3.4 LITRE FLYWHEEL TORQUE

Due to complaints of Model V300/V3.4 Litre outboards shearing flywheel keys the new recommended torque on the flywheel nut is as follows:

- 1. Place oil on crankshaft threads. (Quicksilver Formula 50D is satisfactory.)
- 2. Torque flywheel nut to 125 lbs. ft. (170 N.m).

B. SERIAL NUMBERS

In the near future, you will begin seeing Mercury Marine products that have serial numbers consisting of one alphabet character and six numerals. A typical example is A100100. This type of number will be used wherever seven numeral serial numbers were used in the past. The use of alpha-numeric serial numbers does not change the nature of our system. The numbers are assigned consecutively and do not contain any hidden meanings.

C. SPARK PLUG FOULING - MODEL V150 and V200

Should you receive customer complaints of low RPM spark plug fouling on Model V150 and V200 outboards, the following adjustments are recommended.

- 1. Providing the boat has no problem coming out of the hole, install the tilt-thrust bolt in the first pin hole. This results in about **4**" less trim in. Many of the problem boats have transoms with excessive angles to accommodate competitive motors which do not trim in as far as Mercury outboards do. Some boats (particularly Bass Boats) have very little freeboard at the transom resulting in the idle reliefs and the back of the cowling being underwater at full trim in. The result is that the exhaust smoke is being drawn in under the cowling and contaminating the intake charge resulting in misfiringand resultant plug fouling. Therefore, if the bolt is installed, the exhaust from the idle reliefs will be emitted in the air and pass away from the engine allowing the engine to run better.
- 2. Install leaner (larger) idle air bleed jets in the carburetor. It is permissible to run the idle as lean as is functional. This work will probably be done with the engine warm so a separate check of running quality must be made when effecting a cold start. The engines usually require a richer mixture when cold so the jets selected while the engine is warm will probably be too lean. One size richer usually will cure this problem. <u>NEVER</u> install leaner (smaller) main jets than are supplied with the engine!
- 3. A higher idle speed is helpful but extreme caution must be made to assure shiftability to "in gear" to neutral. <u>Usually800 RPM in gear is OK</u>. It is completely permissible to idle with the throttle shutters cracked. It is very critical; however, to running quality that the shutters be properly synchronized.
- 4. There are some new spark plugs p/n 33-12183 (NGK BU10H) which have yielded some good results. These are a semi-surface gap type which run **a** bit hotter than a surface gap plug, but not as hot as the coldest of conventional gap type plugs. These plugs will be installed in 1985 V150's. DO NOT install them in the V200 at this time.

CIRCULATE TO: SERVICE MANAGER *O* PARTS MANAGER *O* MECHANICS *O* "Place in a Service Bulletin Binder" Should you receive further complaints of low RPM spark plug fouling (after making the above listed adjustments) on Model V150 and V200 outboards, the following carburetor rework is suggested:

MODEL 150:

- 1. Using a hand held pin vise, enlarge the second progression to .052 (Figure 1).
- 2. Install .056 idle jets. (Rejet the idle circuit as noted in Step 2 preceding.)

NOTE: In some instances, the idle jet may have to be as large as ,062.

The above information refers to the WH-23 and WH-27 carburetors only.

MODEL V200:

- 1. Using a hand held pin vise, enlarge the second progression hole to .046 (Figure 1).
- 2. Install .056 idle jets. (Rejet the idle circuit as noted in Step 2 preceding.)

The above information refers to the WH-22 and WH-26 carburetors only. When making the above rework, care must be taken that metal chips and other debris does not enter carburetors. Check all outboards for proper timing and synchronization after rework.

