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SERVICE MANAGER *O*
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"Place in a Service
Bulletin Binder"

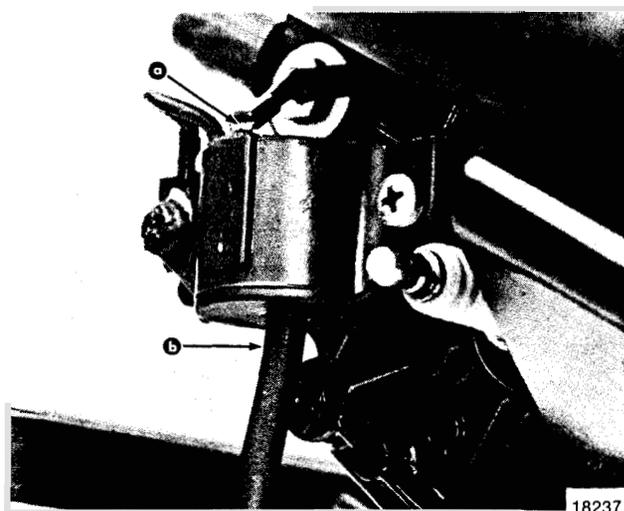
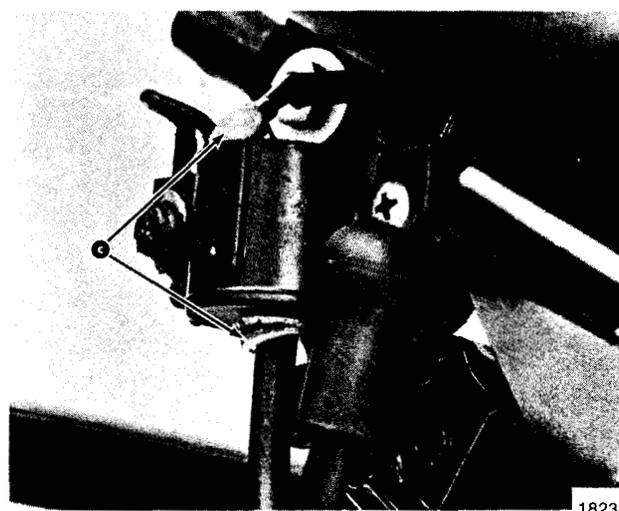
A. MERC 3.5/3.6 SALT WATER USE

In rough water or following seas, it's possible for the ignition coil to become drenched with seawater which could cause rough running or stalling. The coil primary (wire from module) is as critical as the spark plug wire.

Use Insulating Compound C-92-41669-1 to seal, waterproof and insulate the ignition coil. Figures 1 and 2 illustrate "before" and "after".

DURING ANY periodic maintenance or prior to delivery of a new motor proceed as follows:

1. Remove top cowl for easier access to ignition coil.
2. Turn spark plug wire counterclockwise to remove from ignition coil.
3. Apply Insulating Compound, C-92-41669-1 approximately $\frac{1}{8}$ " from end of spark plug wire, then thread spark plug wire clockwise into ignition coil.
4. Remove black primary (module) wire from ignition coil.
5. Apply Insulating Compound C-92-41669-1 to base of primary terminal on ignition coil and reinstall black primary (module) wire.

**Figure 1 (before)****Figure 2 (after)**

a - Primary (module) Wire
b - Spark plug wire
c - Insulating compound

B. NEW SPARK PLUG RECOMMENDATIONS (Merc 3.5, Merc 18XD & 25XD, Mariner 20-25 [U.S. built])**Merc 3.5**

1985 models are equipped with NGK BP6H5-10 (Mercury Part No. 33-12127). This spark plug is **one** heat range warmer which helps sustain smoother idle and reduces chances of spark plug fouling. This spark plug is recommended for **all** earlier Merc 3.5 to 3.6 models, especially motors that are operated extensively at slower speeds.

Mercury 18XD & 25XD

Mariner 20 & 25 (US .built)

QL 78V (Mercury Part No. 33-75739) is now recommended where radio frequency interference (RFI) suppression is required. The QL 78V has a wider airgap than the previous QL 76V and provides smoother idle and better all-around performance.

C. REWORK OF BEARING JOURNALS

There have been reports of attempted field rework of outboard crankshafts for salvaging worn or damaged bearing journals. The rework most commonly used is the selective plating of the journal followed by grinding to size. This rework procedure is not recommended because the roller contact stresses developed will generally be present well below the surface. The bond of a chromium layer over the crankshaft steel would sense this high subsurface stress and likely fail since the bond is not a fusion of chromium and steel but more closely approximates a mechanical interlocking of chromium and steel surface elements. Since electrodeposited chromium has a characteristic of containing numerous microcracks through its depth, the bond of chrome to base metal is critical to supporting a stress of any significant magnitude as would exist with an outboard engine main bearing.

A question has also been asked as to why Mercury Marine does not offer oversize bearings to accommodate the grinding away of damaged journal surfaces. The cost to tool the manufacture of special size bearing needles, cages and races together with the relatively thin case hardened layer of steel on the crankshaft does not make this concept viable.