

NUMBER: 82-13

- A. Electrical/ Ignition System Troubleshooting \* ALL Models
- B. Poor Idle/Bogging Complaints \* Late Model V-6 OUTBOARDS
- C. Trim Tab Functions \* ALL Models

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

#### A. ELECTRICAL/IGNITION TROUBLESHOOTING \* ALL MODELS

Many times, valuable man hours are wasted in troubleshooting an electrical/ignition problem only to find that a loose or corroded connection is at fault.

When servicing an outboard motor, for any reason, make it a routine service practice to check ALL electrical connections (ignition components, charging system, battery terminals, power trim, etc.). Make certain that ALL connections are clean and tight and insulated with Quicksilver Liquid Neoprene (92-25711-1), where necessary.

A side effect of loose/corroded connections on outboards with battery charging capability is that over-voltage can be detrimental to the operation of radio equipment, fish locators, depth finders and other marine electronic equipment. A loose or corroded connection at the battery removes the battery's stabilizing influence from the electrical system and allows the charging voltage to rise, (as high as 16-17 volts), which can cause problems with the aforementioned equipment.

#### B. POOR IDLE/BOGGING COMPLAINTS \* LATE MODEL V-6 OUTBOARDS

Recent complaints of poor idle and/or bogging of late model V-150 and V-200 outboards have been attributed to improper insertion of the spark plug wire into the ignition coil. Check all spark plug wires as follows:

1. Remove spark plug wires from all six coils and check that ends of wires are not burned from arcing. Replace wires that have burned.
2. If not burned, pull the boot back and insert wire into coil. Caution must be taken to ensure a complete connection of wire into coil.
3. Assemble boot over coil terminal.

Whenever servicing these models, be sure to check that the lead wires are inserted fully into the ignition coil. Also, check your present new motor stock.

#### C. TRIM TAB FUNCTIONS \* ALL MODELS

Trim tabs are designed to provide a dual function. The first is to balance steering torque, and the second is to provide galvanic protection for the underwater portion of the drive unit. This protection is achieved thru sacrificial consumption or as it is commonly called eroding away of the zinc trim tab.

If the underwater portion of the drive unit shows small paint blisters and white corrosion products forming at or near sharp edges, without consumption of the trim tab, it could be caused by:

1. Trim tab not properly grounded to the gear housing recess. Paint or foreign substance between the gear housing and trim tab isolating the trim tab and making it inactive. DO NOT paint trim tabs. Clean all paint from the trim tab and from the gear housing recess (at the point of attachment to the gear housing).

2. Trim tab may have a protective coating of a very dense oxide on its surface which usually has a charcoal gray color. This charcoal gray coating usually forms in fresh or brackish water and it can be confirmed by a resistance measurement ( $R \times 1$  scale) on the surface of the trim tab. If you must scrape the surface in order to get a conductive reading, **REPLACE THE TRIM TAB**. Sanding the surface with coarse sandpaper provides a temporary fix, but it is very likely that the oxide will reform.

**IMPORTANT Latest replacement Quicksilver zinc trim tabs are manufactured to a new material specification (identified by letters "MS" embossed near the part number) that prevents the formation of an oxide coating.**