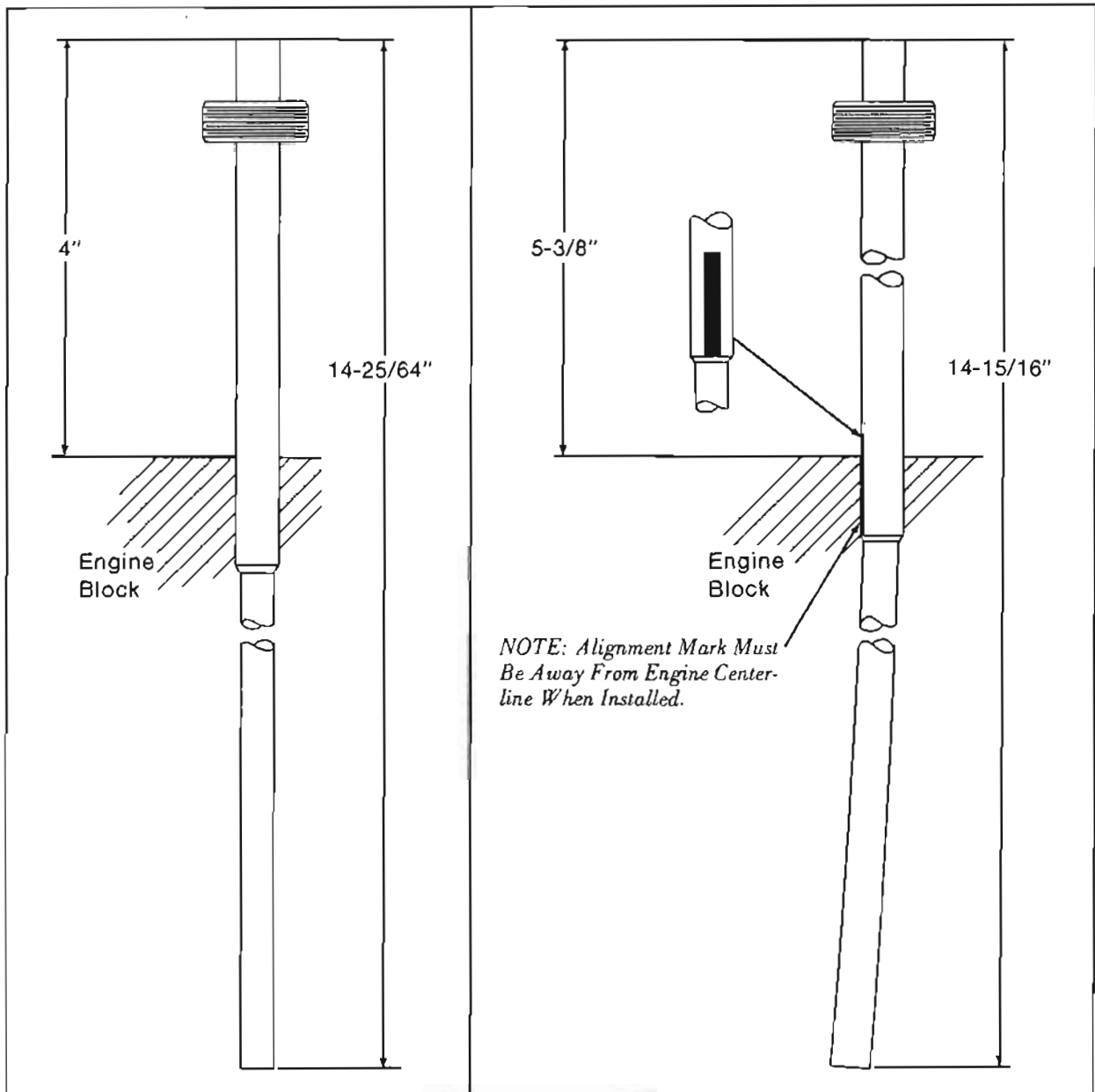


- A. Oil Dipstick Tube Identification and Installation - MCM 120/140/165
- B. New Delco-Remy Starter Motors with Metric Fasteners
- C. Switch Type Solenoid (B-89-76416A1) Used on MerCruisers
- D. Use of "Lifetime Impellers" in MerCruiser Products

CIRCULATE TO:
 SERVICE MANAGER
 PARTS MANAGER
 MECHANICS

A. OIL DIPSTICK TUBE IDENTIFICATION AND INSTALLATION - MCM 120/140/165

There have been reports that the oil dipstick tube hasn't been installed deep enough in the cylinder block or the incorrect tube installed. In either case, a false oil level is given. Because of the false level, too much oil is in the crankcase. Refer to Figure 1 or 2 for correct oil dipstick tube identification and installation depth.

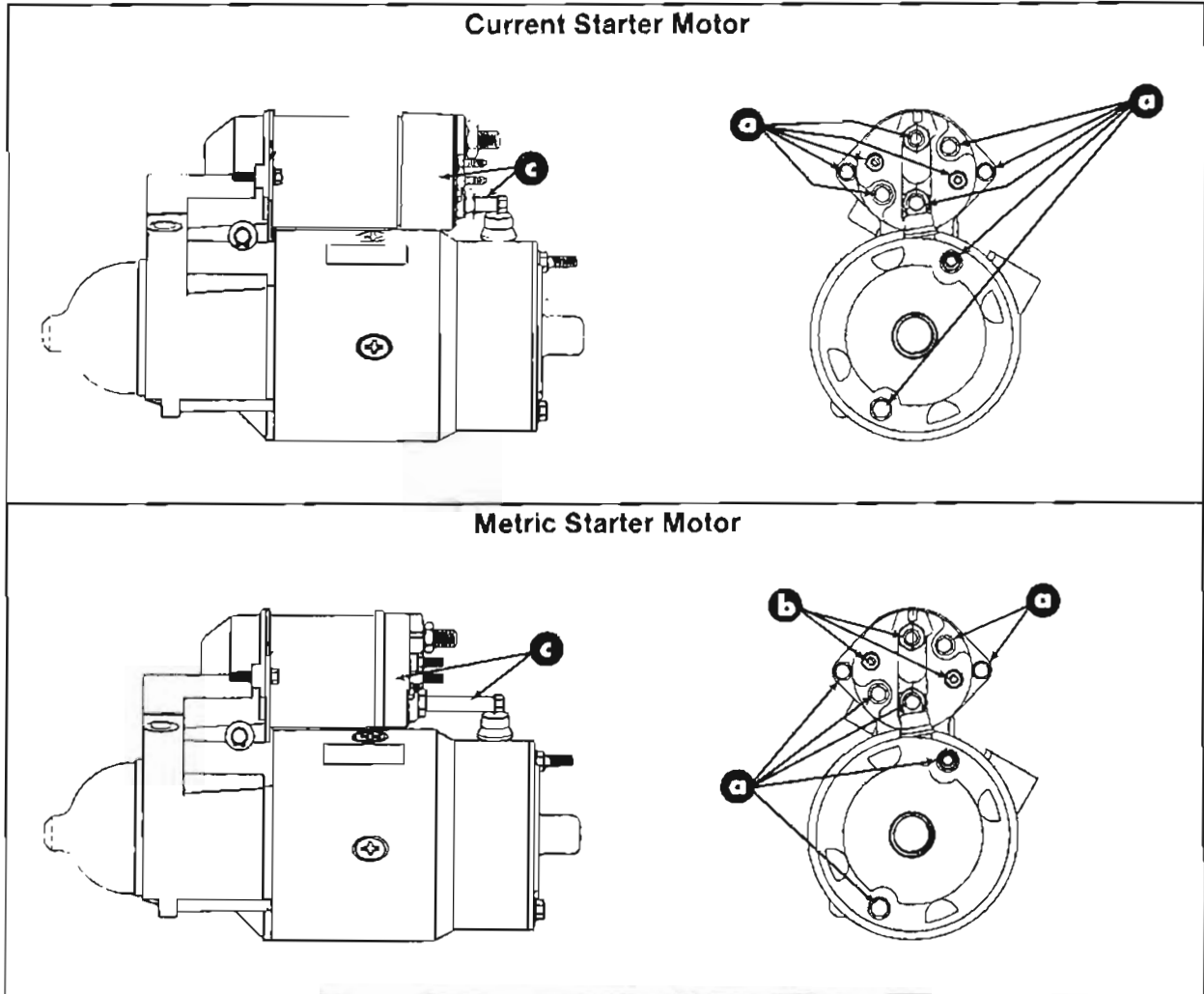


**Figure 1. Dipstick Tube, B-87717A1
 MCM 120/140**

Figure 2. Dipstick Tube, B-87718A1 MCM 165

B. NEW DELCO-REMY STARTER MOTORS WITH METRIC FASTENERS

MerCruiser engines, that use Delco-Remy starter motors, will use metric fasteners in the future. The "Metric Starter" will use a shorter start solenoid also. Refer to Figure 3 for identification.

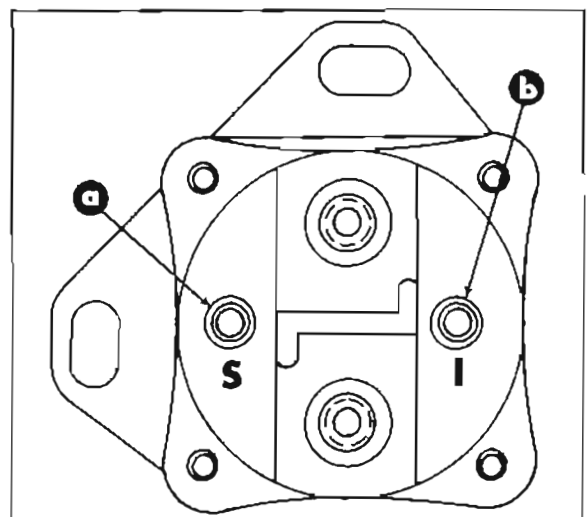


a - English Thread b - Metric Thread c - Difference In Solenoid Length

Figure 3. Delco-Remy Starter Motor Identification

C. SWITCH TYPE SOLENOID (B-89-76416A1) USED ON MERCRUISERS

Some of the solenoids (B-89-76416A1) used on MerCruisers may not have the small terminals marked "S" or "I" for identification. Instead, paint will be used to identify the "S" and "I" terminals. Refer to Figure 4 for correct terminal identification.



a - "S" or Yellow Paint
b - "I" or Purple Paint

D. USE OF "LIFETIME IMPELLERS" IN MERCUISER PRODUCTS

We recently received a brochure published by Lifetime Impeller Facilities of Clearwater, Florida, which was mailed to some of our Mercury Outboard and MerCruiser dealers. It advertises in part "--the Lifetime Impeller!!! Lifetime Impeller announces an all new impeller with an unparalleled guarantee up to five times longer life with free replacement should it fail--".

These impellers are of a material which is orange in color. Our engineering department has tested these impellers. The impellers failed within 1 to 2 hours of operation at 6000 RPM. The failure on the 40 HP to 70 HP models is the vanes breaking off the impeller. On the 80 HP thru 225 HP and MerCruiser I, the hub bonding came loose as well as the vanes starting to tear off.

We do not recommend the use of these impellers on Mercury Outboards or MerCruiser stern drives.