service bulletin

MERCURY OUTBOARDS

NUMBER: 80-13 DATE: 9/29/80

CIRCULATE TO: SERVICE MANAGER PARTS MANAGER MECHANICS

A. New Quicksilver Volt/Ohm Meter (C-91-93572)

B. Fuel Tank/Flywheel Clearance • Merc 4

C. Replacement Gear Housing • Merc 20

D. Tiller Handle Assembly, Complete - Merc 7.5/9.8

A. NEW - QUICKSILVER VOLT/OHM METER (C-91-93572)

A new Quicksilver Volt/Ohm Meter (C-91-93572) now is available for electrical/ignition system testing.

This versatile meter is capable of performing all required measurements [Resistance (Ohms $\cdot \Omega$) and Direct Current Voltage (DCV)] for proper electrical/ignition system testing of Mercury - MerCruiser - Mariner products.

The new Volt/Ohm Meter is ideally suited for use with the Direct Voltage Adaptor (DVA), C-91-89045, for troubleshooting Alternator Driven Ignition (ADI) systems. (Refer to Outboard Service Bulletin, 79-10, dated 6/6/79).

NOTE: Quicksilver Volt/Ohm Meter C-91-93572 SUPERSEDES Quicksilver VOA Meter C-91-62562Al (VOA Meter from Quicksilver Thunderbolt Ignition Analyzer).

The meter can also be used with Reference Electrode Assembly, C-76675A1, (to check galvanic corrosion potential), provided the original "jack" on the Reference Electrode Assembly [which contains a resistor for proper scale reading when used with Quicksilver VOA Meter C-91-62562Al)I is replaced with a standard "jack" (available from local electronic stores).

C-91-93572 Quicksilver Volt/Ohm Meter

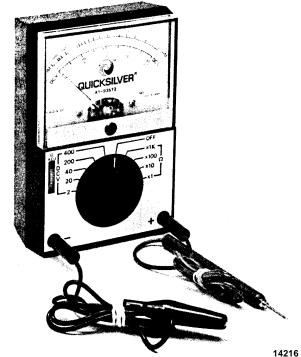


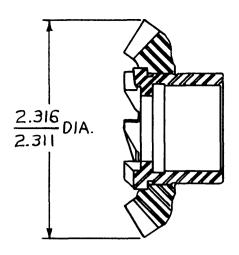
Figure 1. Quicksilver Volt/Ohm Meter (C-91-93572)

B. FUEL TANK/FLYWHEEL CLEARANCE - MERC 4

When servicing Merc 4 (Gnat) motors, for any reason, ALWAYS check the fuel tank retaining strap to make certain the fuel tank is properly secured. A MINIMUM of 3/16" clearance must be maintained between the fuel tank and the flywheel perimeter.

C. REPLACEMENT GEAR HOUSING - MERC 20 (BASIC GEAR HOUSING)

When ordering a BASIC replacement gear housing A-1627-4404A6 or A-1627-6006A5 for a Merc 20 ABOVE Serial Number 2991678, it will be necessary to check the outside diameter (O.D.) of the old <u>forward</u> gear to assure that it will fit properly in the new, replacement gear housing.



The forward gear used in Merc 20 gear housing assemblies from 1971 thru 1974 had a 2.351" O.D. while in 1975 and NEWER motors the O.D. is 2.316". As a result, the <u>older forward gear</u> (2.351" O.D.) does not have proper clearance between the gear teeth and the gear housing and CANNOT BE **USED** in a new, replacement A-1627-6006A5 gear housing.

If this situation is encountered the forward gear assembly (A-43-45227A5) must also be replaced.

NOTE: A-43-45227A5 forward gear assembly consists of the forward gear and the <u>roller</u> bearing. It DOES NOT include the forward gear <u>ball</u> bearing.

D. TILLER HANDLE ASSEMBLY, COMPLETE - MERC 7.5/9.8

A service replacement Tiller Handle Assembly, A-77194A2 (all handle components and cables assembled), now is available for Merc 7.5/9.8 motors (1979and Newer) which are equipped with "cable type" tiller handle.

NOTE: This assembly will be added to the respective Parts Lists at next revision.

A-77194A2 Tiller Handle Assembly, Complete