



Number: 78-4

Date : 12/15/77

CIRCULATE TO: SERVICE MGR.

PARTS MGR.

MECHANICS

Place in Your "Service Bulletins" Binder

OFFICIAL NOTIFICATION Under the U.S. Federal Boat Safety Act

A. Factory-Installed Power Steering

B. Extension Rod Lubrication Instructions

(Attach Bulletin Reference Sticker to P. 7B-9 of Your Service Manual.)

A. FACTORY-INSTALLED POWER STEERING

Mercury Marine has determined that certain factory-installed Power Steering units (models and serial numbers attached) may bind between the extension rod from the Power Steering cylinder and the tube through which it extends. If this binding occurs to a severe degree, the steering will not operate.

To prevent this situation from occurring, proper application of a special lubricant [Special Lubricant No. 101 (Part No. C-92-79214)] to the extension rod and tube is necessary.

Models affected are all MerCruiser 250, 228TR, 330TR and 330TRS; also some 898, 228 and 260 MerCruisers with <u>transom assembly</u> serial numbers as listed on attached sheet.

Many units may have been reworked. Transom assemblies that <u>DO NOT</u> need rework, therefore, can be identified by the following:

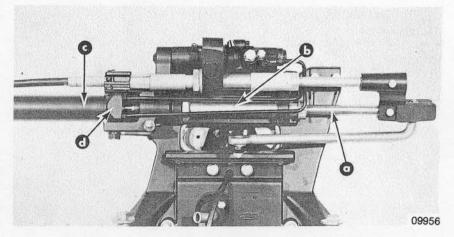
<u>Transom assembly still in shipping carton</u> - Carton will be identified by an "A" stamped in red on upper right hand corner on same side of carton as transom serial number.

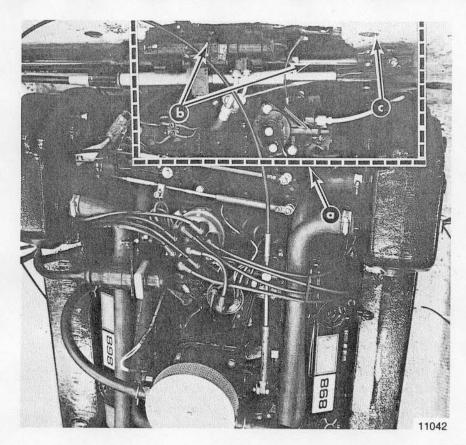
Transom assembly out of shipping carton or installed - Power Steering booster cylinder will be identified with an "A" or "Z" stamped on flat surface of cylinder. (Figure 1)

Certified letters (copies enclosed) are being sent to all <u>registered</u> MerCruiser owners with factory-installed Power Steering units which require lubrication.

- a Extension Rod
- b Mounting Tube
- c Booster Cylinder
- d Flat Surface for "A" or "Z"

Figure 1. Power Steering
Assembly (Photo Taken with
Engine Removed for Clarity)





- a Area Inside Dotted LineIs Area Shown inFigures 3, 4 and 5
- b Power Steering Assembly
- c Boat Transom

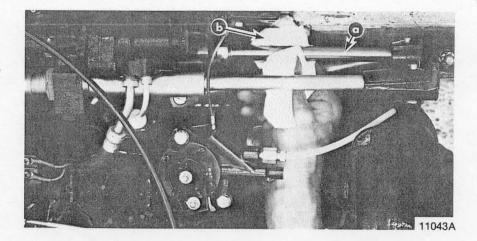
Figure 2.V-8 Power Steering
Location (Photo Looking
Down on Engine)

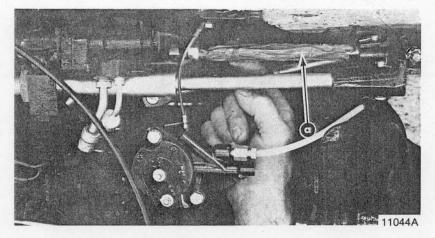
B. EXTENSION ROD LUBRICATION INSTRUCTIONS

Lubricate Power Steering extension rod (Figure 1) as follows:

- 1. Disconnect battery cables from battery(s).
- 2. Locate Power Steering assembly as shown in Figure 2.
- 3. Locate extension rod as shown in Figure 3.
- 4. With engine <u>NOT</u> running, turn steering wheel until Power Steering extension rod is fully extended. (Figure 3)
- 5. Clean exposed portion of extension rod, using a clean cloth. (Figure 3)
- a Power Steering Extension Rod Extended
- b Clean Cloth

Figure 3. Cleaning Extension Rod



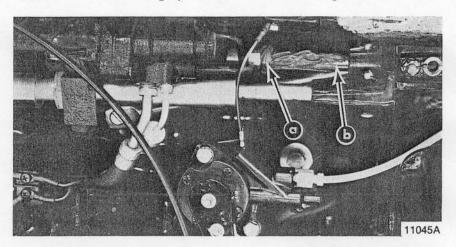


 a - Liberal Coat of Special Lubricant No. 101
 Applied to All Exposed Portions of Extension Rod

Figure 4. Lubricating Extension Rod with Special Lubricant

- 6. Use lubricant supplied with owners letter and apply a <u>liberal</u> coat of the Special Lubricant No. 101 (C-92-79214) to all exposed portions of extension rod. (Figure 4) Lubricant also may be ordered from your branch or distributor.
- 7. Turn steering wheel until extension rod is fully retracted. The lubricant should form a continuous "doughnut" around the rod at end of the tube as it is retracted into the tube. (Figure 5) Now turn steering wheel until extension rod is fully extended.
- 8. Perform Steps 6 and 7 three or more times to fully lubricate extension rod and its mounting tube.
- 9. Scratch a "Z" on flat surface of Power Steering cylinder, as shown in Figure 1.
- a "Doughnut" Formed around Extension Rod at End of Mounting Tube
- b Extension Rod

Figure 5. Retracting Extension Rod



Each dealer must list (on a warranty claim) the serial numbers of engine and transom assembly (if transom assembly is serialized) of those units which he lubricates. All serial numbers may be listed on one claim form. Mercury Marine must maintain a record of which units have been reworked. Refer to Service Bulletin No. 77-9, dated 6/30/77, for serial number location.

Labor allowance 0.5 hours per unit.