



MERCUISER SERVICE BULLETIN

Section: XII (Bulletins)

Number: 68-12-08

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Cut individual items along broken lines and attach in appropriate sections of your MerCruiser Service Manual.

A. MerCruiser II 1.78:1 Service (For Installation Section II)

B. Bleeding MerCruiser 120-160, II 1.78:1 and III Model Trim Cylinders (Misc. Sec. X)

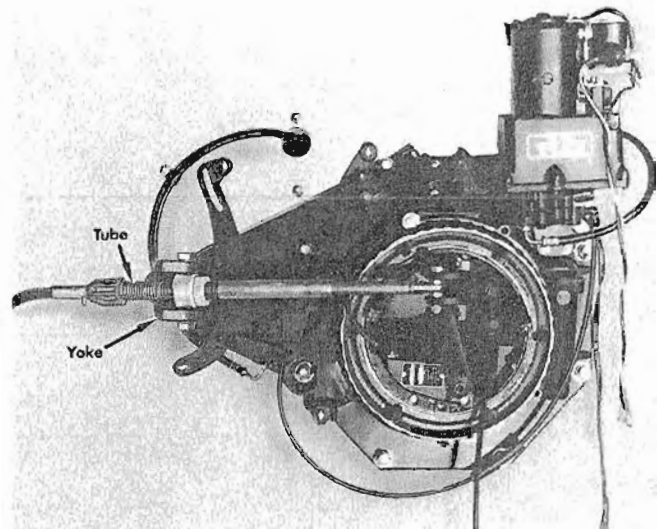
A. MERCUISER II 1.78:1 SERVICE

(For Installation Section II)

1. MerCruiser II 1.78:1 Ride-Guide Cable Installation

- Ride-Guide tube yoke and cable attachment, shown in Figure 8, Page 3 of the "MerCruiser II (1.78:1) Drive Installation Manual" (C-90-49417) is in error.
- The Ride-Guide yoke and tube should be installed, as shown in Figure 1, to provide sufficient adjustment for centering drive unit and steering wheel. If not installed in this manner, full steering radius may not be obtained in a left turn.

Figure 1. Tube and Yoke



2. MerCruiser II Shift Cable Dimensions

To obtain maximum adjustability on remote control shift cable, the following shift cable dimensions must be checked.

- With cable end guide removed and unit in full reverse gear, inner core wire of stern drive unit shift cable must extend exactly 1-3/8" (34.9mm) from end of cable guide insert (full forward gear engagement on right hand propeller rotation units). (Figure 2)
- With cable end guide installed and unit in full reverse gear (full forward gear engagement on right hand propeller rotation units), the distance from center line of brass barrel to center line of cable end guide mounting hole must be exactly 6 1/4" (158.7mm) (Figure 3). Re-adjust brass barrel to achieve this dimension.

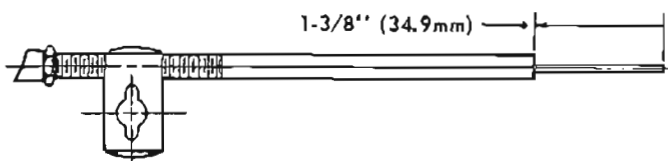
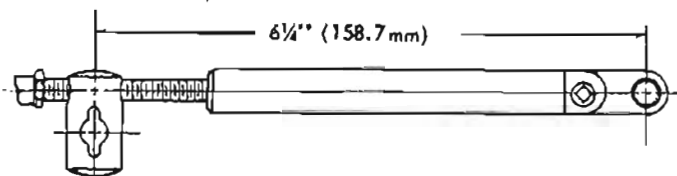


Figure 2. Inner Core Wire Extended 1-3/8" Shift Cable

Figure 3. Center Line to Center Line Dimension 6 1/4"



B. BLEEDING MERCUISER 120-160, II 1.78:1 and III MODEL TRIM CYLINDERS

(For P. 86 of Miscellaneous Section X)

1. Following Is a Satisfactory Alternate Method for Removing Slight Amounts of Air from Cylinders
 - a. Fill pump reservoir to proper level with cylinders retracted.
 - b. Remove cylinders from drive, then allow cylinders to hang down. This may be done with the boat in the water.
 - c. Operate the Power Trim system several times, extending and retracting the cylinders.
 - d. Lay cylinders horizontally over the drive anchor pin.
 - e. Operate the Power Trim system several times, extending and retracting the cylinders.
 - f. Reinstall cylinders. If air in cylinders is still apparent, bleeding procedure in "2", below, must be followed.

2. Bleeding "Down" Side of Cylinder

- a. With drive unit all the way down in normal operating position, disconnect aft end of one cylinder from drive shaft housing rear mounting pin.
- b. Loop a length of rope thru lifting eye in top cover of drive shaft housing and tie cylinder to hold in a horizontal position.
- c. Run hydraulic pump in "Down" position until piston rod is fully retracted. Check oil level of pump to be certain that it is full.
- d. Disconnect aft hose on the cylinder and run pump in "Up" direction. This will extend the piston rod of this cylinder, and oil and air will be forced out of the cylinder port.
- e. Run pump in "Down" direction for a moment to purge any air in hose line to cylinder. When free of air, connect hose back to cylinder and reinstall on rear mounting pin.
- f. Repeat Steps "a" and "e" for the other cylinder.

3. Bleeding Procedure with Trim Indicator Accessory on MerCruiser 120-160 and III Drives Only

NOTE: Air, that may have entered hydraulic system during indicator installation, will become trapped in the sender. The following "Bleeding Procedure" will not require bleeding the system at the cylinders.

- a. Remove bleed screw "B". (Figure 4)
- b. Momentarily press the "Down" or "In" button and repeat until oil flow is free of air, then reinstall bleed screw.
- c. Remove bleed screw "A". (Figure 4)
- d. Momentarily press "Up" button until oil flow is free of air, then reinstall bleed screw and add oil to pump reservoir.

NOTE: Be cautious not to lose "O" ring seals when removing bleed screws.

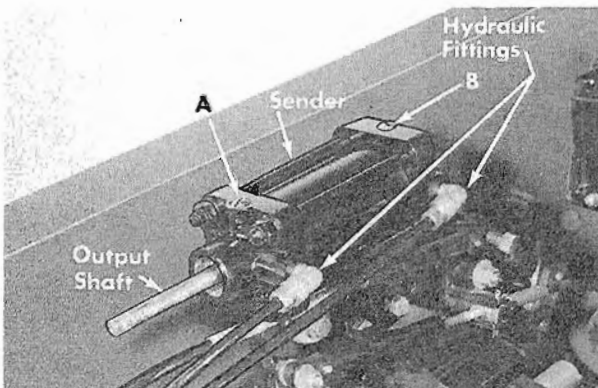


Figure 4. Bleed Screw Locations

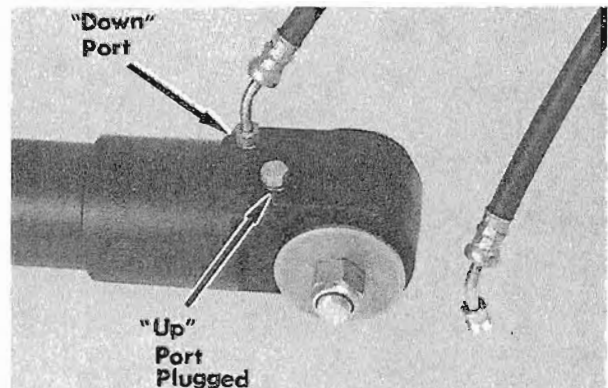


Figure 5. Cylinder 'Up' Port Plugged

(OVER)

4. Power Trim Cylinder Check

- a. Pump unit up and block in nearly full "Up" position.
- b. Disconnect "Up" hose from hydraulic pump and cap hose with B-36172 cap.
NOTE: There are 2 lines connected to pump base. DO NOT disconnect hose from pump to reverse lock valve.
- c. Disconnect "Down" hose from reverse lock valve (hose from reverse lock valve to drive unit) and tie up for observation.
- d. Unblock and weight drive unit with 100 to 200 lbs. (45 to 90kg).
 - (1) If unit remains up, the cylinders are OK.
 - (2) Check hydraulic pump if cylinders are OK.
 - (3) If unit will not remain "Up" and oil flows from "Down" hose ("c", above), check for external leaks and/or each cylinder, following.
- e. Checking each cylinder
 - (1) Block unit in nearly full "Up" position.
 - (2) Remove "Up" hose from one cylinder (Figure 5) and plug "Up" port with Part No. B-22-38609 (with "Down" hose connected as in "c", above).
 - (3) Remove opposite cylinder from aft end of drive, then unblock and weight drive unit as in Step No. "c", preceding. The cylinder is OK if unit remains up. Replace if faulty.
 - (4) Remove plug in "Up" port and reinstall hose to cylinder.
 - (5) Repeat Steps "(1)" thru "(4)", immediately preceding, on second cylinder.