



# MERCURY SERVICE BULLETIN

Section: X (Miscellaneous)

Number: 65-109

Date : 7/22/65

## Bleeding Air from Hydraulic Tilt System

### BLEEDING AIR FROM HYDRAULIC TILT SYSTEM

The following procedure applies to both the low and high pressure power tilt system, except where stated:

1. Drive unit must be all the way down in normal operating position.
2. Remove vent pipe from hydraulic pump and fill reservoir via a pump type oil can.
  - a. Low Pressure Pump - Systems, which have a low pressure pump (Figure 1), require SAE 10W30 motor oil.
  - b. High Pressure Pump - Systems, which have a high pressure pump (Figure 2) require Type "A" transmission oil.

*NOTE: Disregard information on decal, which is attached to pump motor, unless it agrees with the foregoing. If information on decal is incorrect, replace decal with Part No. B-37-35520 for low pressure pumps and B-37-37613 for high pressure pumps.*

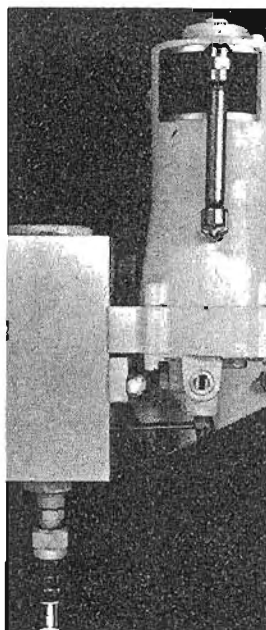


Figure 1. Low Pressure Pump

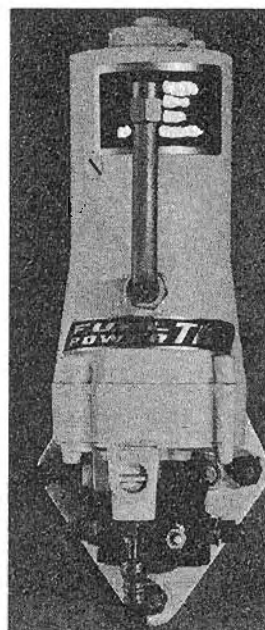


Figure 2. High Pressure Pump

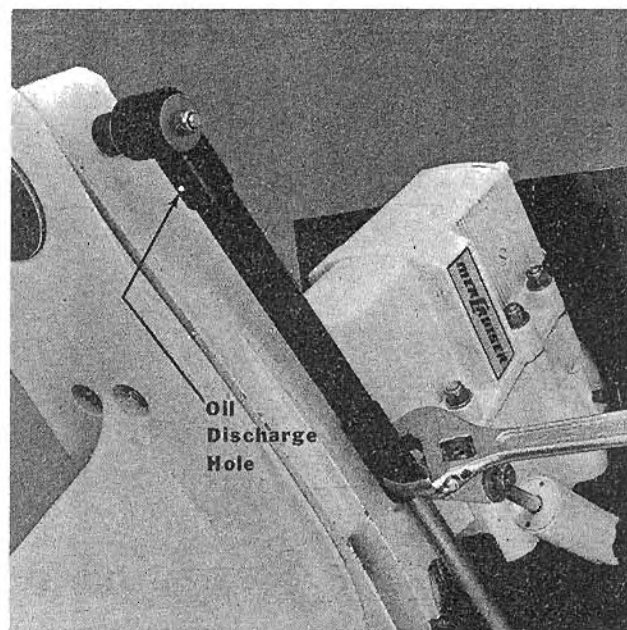


Figure 3. Bleeding Air from Hydraulic System - Early Style

3. Place reverse lock hook release lever in the release (down) position.
4. Place remote control handle in neutral or forward gear position.
5. Turn control panel key switch to "on" position and depress top of rocker switch. Hold rocker switch in until drive unit reaches end of its upward travel and stops.
6. For tilt cylinders with air bleed hole in lower aft portion of cylinder (Figure 3), proceed with one tilt cylinder at a time as follows:
  - a. Place wrench on flats which are located on outer portion of one lift cylinder.

(OVER)

- b. Turn outer portion of cylinder clockwise, when looking forward, until oil comes out of hole at lower aft end of tilt cylinder.
  - c. Allow oil to drain out of cylinder until drive unit has traveled all the way down and stops.
  - d. Turn outer portion of cylinder counterclockwise until it is tight.
7. For tilt cylinders with air bleed cover screw located at upper aft end of tilt cylinder (Figure 4), proceed as follows:
- a. Loosen screw on top of aft end of tilt cylinder. Early screw must be removed completely. Later tilt cylinders have a screw which is undercut and need only be turned out as far as the undercut.
  - b. Place wrench on flats which are located on outer portion of tilt cylinder.
  - c. Turn outer portion of cylinder clockwise, when looking forward, until oil comes out of screw hole at upper aft end of tilt cylinder.
  - d. Allow oil to drain out of cylinder until drive unit has traveled all the way down and stops.
  - e. Turn outer portion of cylinder counterclockwise until it is tight, then tighten screw.

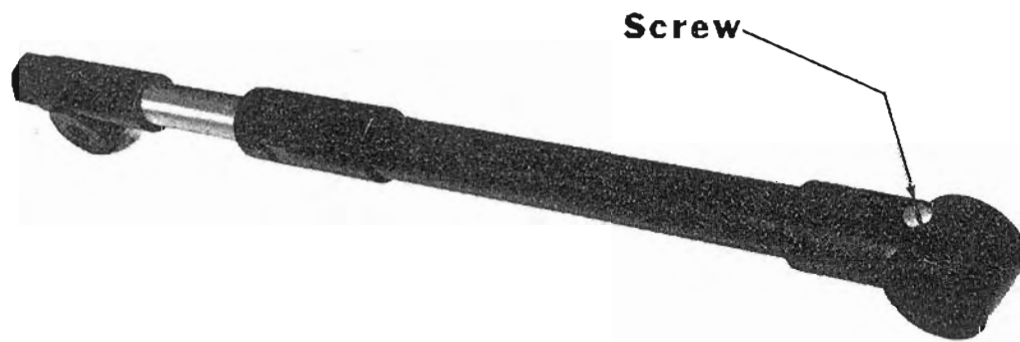


Figure 4. Bleeding Air from Hydraulic System - New Style

8. Fill pump with oil again.
9. Turn control panel key switch to "on" position and depress top of rocker switch. Hold rocker switch in until drive unit reaches the end of its upward travel and stops.
10. Check cylinder, which was just bled, for oil leaks at aft end. Additional tightening of outer portion of cylinder may be required.
11. Repeat steps 6 or 7 (as applicable), 8, 9 and 10 on other cylinder.
12. Install vent pipe in hydraulic pump. Face vent pipe down. Place a container directly under hydraulic pump to catch excess oil.
13. Turn control panel key switch to "on" position and depress bottom of rocker switch. Hold rocker switch in until drive unit reaches the end of its downward travel.
14. Repeat the complete bleeding procedure as many times as necessary to rid hydraulic system of all air bubbles.
15. Tighten vent pipe into hydraulic pump in the upright position and check system for leaks.
16. Return reverse lock hook release lever to the locked (up) position.

*NOTE: If the pump continues to "foam" from the vent pipe, or if air cannot be bled from the hydraulic system, it will be necessary to replace or repair the hydraulic pump.*

**NOTE:** Additional trouble-shooting information for Power Tilt can be found in your MerCruiser Service Manual, Miscellaneous Section X, PP 13-14-15-16.