



MERCruiser SERVICE BULLETIN

Section: XII (Bulletins)

Number: 68-67-13

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

- A. Power Trim and Tilt Hydraulic Pump Repair and Replacement (For P. 83 Section X)
- B. Identification of Trim and Tilt Control Valves (For P. 83 of Section X)

A. POWER TRIM AND TILT HYDRAULIC PUMP REPAIR AND REPLACEMENT

(For P. 83 of Miscellaneous Section X)

Hydraulic trim and tilt pumps consist of three (3) main assemblies:

- 1) Motor and reservoir assembly
- 2) Valve body and gear assembly
- 3) Control valve body assembly (large reservoir pump only)

The hydraulic pump assembly can be serviced by replacing the valve body and gear assembly while in warranty. Previously, the hydraulic pumps were to be replaced as complete units. Faster service can be obtained by repairing the hydraulic pump, as the dealer need only stock valve body and gear assemblies rather than complete hydraulic pumps.

Any hydraulic pump assembly, which fails within the normal warranty period because of defects in material or workmanship, can be repaired or replaced on a "no charge" basis.

If the valve body and gear assembly or control valve needs replacement, order from the following chart:

Part No.	Description	Valve Body and Gear Assembly	Control Valve Number
B-45060A2	Power Tilt-MerCruiser 60 & MerCruiser 80	C-392-2936	B-45382A1
B-45060A3 B-45060A9	Power Trim-MerCruiser 120 & MerCruiser 160	C-392-2936 C-392-2936	B-45764A2 B-48077A2
B-45060A5	Power Tilt-MerCruiser 120 & MerCruiser 160	C-392-2936	B-45382A1
B-36574A4	Power Tilt (Small Reservoir)	B-392-2526	None used
B-46056A6	Power Tilt (Large Reservoir Replacement for 36574A4 pump)	B-392-3360	B-45382A1

If a hydraulic tilt or trim does not function properly, the dealer should make the necessary checks and tests, outlined in the Service Manual, to determine which part is defective:

1. Valve body and gear assembly
2. Control valve
3. Hydraulic cylinders
4. The system has not been properly bled and filled with clean fluid.

Inspection and test of hydraulic pumps, which are being returned for warranty consideration, have shown that many of the pump assemblies check to specifications with no malfunctions.

Any hydraulic pumps, which are found to check to specifications upon return to the factory, will be rejected and returned to the dealer.

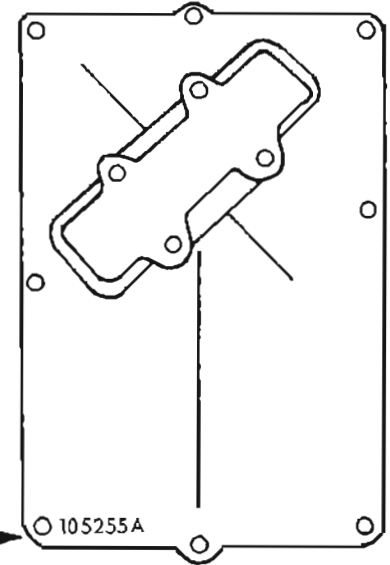
Often, by operating the unit several times in the up and down positions (if possible), a particle of dirt, which may be restricting the pump operation, will be flushed out.

Warranty will not be honored on hydraulic pumps if:

1. Threads are stripped from overtightening.
2. Pump housing or related components are cracked or broken from mishandling.
3. Contaminated with dirt and grit, or incorrect oil is found in pump reservoir or valve body and gear assembly.
4. Modifications are made which result in pump malfunction.

IMPORTANT: Do not use the B-45060 series hydraulic pump as a replacement for the B-36574A4 pump. This pump has, approximately, a 1200 PSI (84.36 kg/cm²) higher output than the small reservoir white pump. The higher pressure applied to the small diameter tilt cylinders (B-36073A1) will over-extend them and cause damage to the stern drive and related components.

To determine whether the large reservoir pump is the correct type, which can replace the (white) small reservoir pump, examine the valve body and gear assembly on the hydraulic pump for the number 105255. If the pump is of the lower pressure type, it will have the letter "A" stamped after the number (as illustrated on the right). If the letter "A" does not appear after the number, the pump is of the higher pressure type and must not be used as a replacement for the small reservoir white pump.



"A" after Number Designates a Lower Pressure Pump to Be Used for Replacement of the Small Reservoir White Pump

If a customer desires to replace the small reservoir (white) hydraulic pump (B-36574A4) with the large reservoir hydraulic pump (replacement kit No. B-46205A2), an exchange price of \$50.00 net will be charged. Old pumps must be returned to your parts distributor.

B. IDENTIFICATION OF TRIM AND TILT CONTROL VALVES

(For P. 83 of Miscellaneous Section X)

The MerCruiser tilt and trim control valves are similar in appearance.

- a. The trim control valve has two (2) tapped holes for the hydraulic lines or one (1) tapped hole and one (1) 90° brass elbow.
- b. The tilt control valve has one (1) tapped and one (1) hole which is not tapped.

