

POWER TRIM CYLINDER DISASSEMBLY and REASSEMBLY PROCEDURE

For MerCruiser II, 215, TR, TRS, II-TR, II-TRS and III

CAUTION

Work in clean, lint-free area. Lubricate parts with SAE 10W-30 or 10W-40 automotive oil after cleaning.

CAUTION

DO NOT clamp vise on sealing surfaces of piston rod, following.

NOTE: Disregard Steps 1, 2, 16, 17 and 18, if pivot end is not to be replaced.

1. Secure piston rod in vise (with soft jaws to prevent possible scoring) as close to pivot end as possible. (Figure 1)

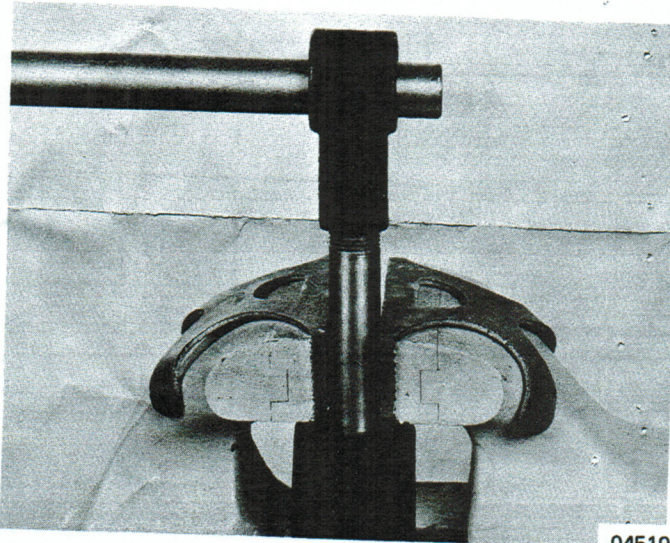


Figure 1. Piston Rod in Vise

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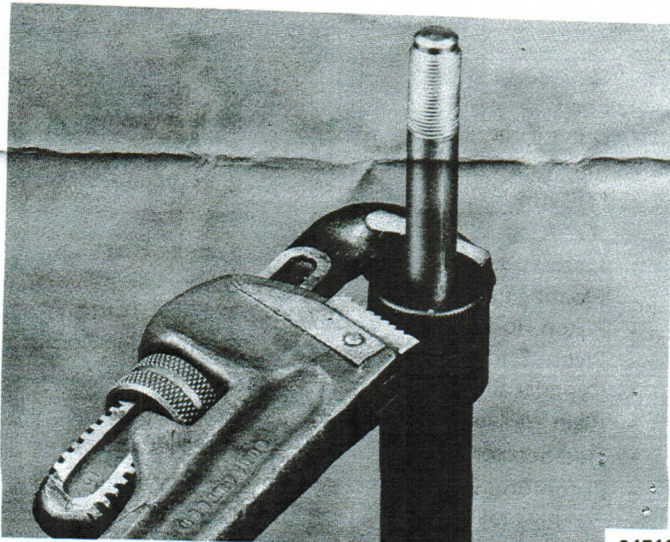


Figure 2. Removing End Cap

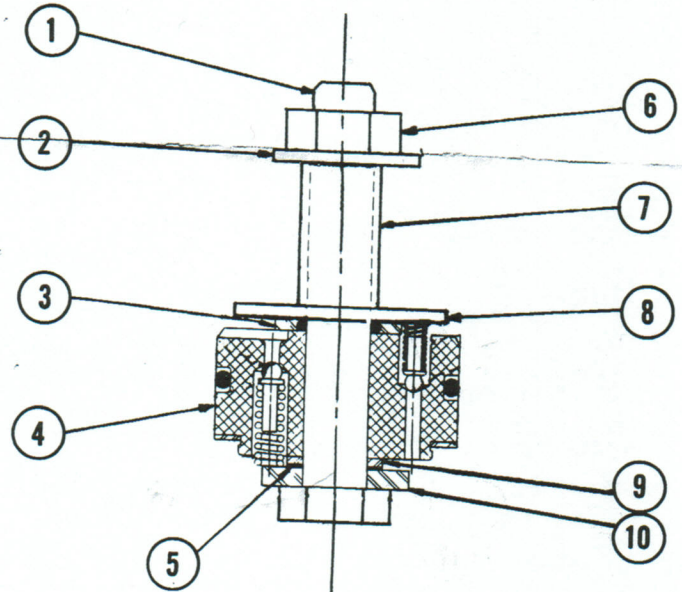
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2. Place a bar thru eye of pivot and rotate counterclockwise to remove. If pivot end is extremely tight, apply heat only with piston rod extended, being careful not to overheat cylinder parts.
3. Rotate cylinder end cap carefully, counterclockwise with a pipe wrench to remove. (Figure 2)
4. Pull piston rod assembly from cylinder (inner cylinder may accompany it).

NOTE: Some trim cylinders have a spacer between piston rod assembly and floating piston in inner cylinder. If spacer is present, it must be reinstalled during reassembly.

5. Remove floating piston and tube support. Use a wire hook or tap end of tube against a block of wood to remove tube support if it remains in outer cylinder.
6. Place piston rod in vise, as in Step 1, and remove screw that holds piston assembly.

NOTE: If piston assembly is to be re-used, take precautions not to lose check balls and springs during removal. Hold in upright position. (Figure 3)



- | | |
|--------------------|-------------|
| 1 - Piston Screw | 6 - Nut |
| 2 - Washer | 7 - Spacer |
| 3 - Sealing Washer | 8 - Washer |
| 4 - Piston | 9 - Washer |
| 5 - Shim Washer | 10 - Washer |

Figure 3. New Piston Assembly

7. Remove piston assembly from piston rod.
8. Remove piston rod bearing. Replace its inner and outer "O" rings.
9. Place end cap (if pivot end is not removed), plain washer, Equi-Flex scraper and piston rod bearing on piston rod.
10. Hold new piston assembly as shown in Figure 3. Remove nut ("6" in Figure 3) from end of piston screw. Carefully lift off washer ("2"), spacer ("7") and washer ("8") and discard. DO NOT remove sealing washer.

11. Hold piston in upright position and apply Quicksilver Loctite "A" (92-32609) to threads of piston screw. Turn rod onto piston screw far enough to secure check balls and springs.
12. Secure piston rod in vise (as in Step 1) and torque piston screw 15 to 20 lbs. ft. (20-27 N.m).
13. Place new "O" rings on floating piston and tube support. Place them into inner cylinder and position assembly in outer cylinder. Refer to assembly drawing, Figure 4.

NOTE: If a spacer was removed from between piston rod assembly and floating piston, install spacer at this time.

14. Insert piston rod and piston into inner cylinder while fitting piston rod bearing into outer cylinder.
15. Coat threads of outer cylinder with Quicksilver 2-4-C Multi-Lube (92-86154) and install end cap on cylinder. Torque to 35 to 45 lbs. ft. (47-61 N.m).

16. Secure piston rod in vise as close to pivot end threads as possible. (Figure 1)
17. Clean threads on piston rod and apply Quicksilver Loctite "A" (92-32609).
18. Replace pivot end and torque to 30 to 40 lbs. ft. (41-54 N.m).
19. Paint over scratches to protect exposed metal.
20. Reinstall trim cylinder and refill and bleed hydraulic system, as outlined in appropriate service manual.

CAUTION

Make sure that spiral grounding springs are properly installed on anchor pins (between rubber bushing) when installing cylinders.

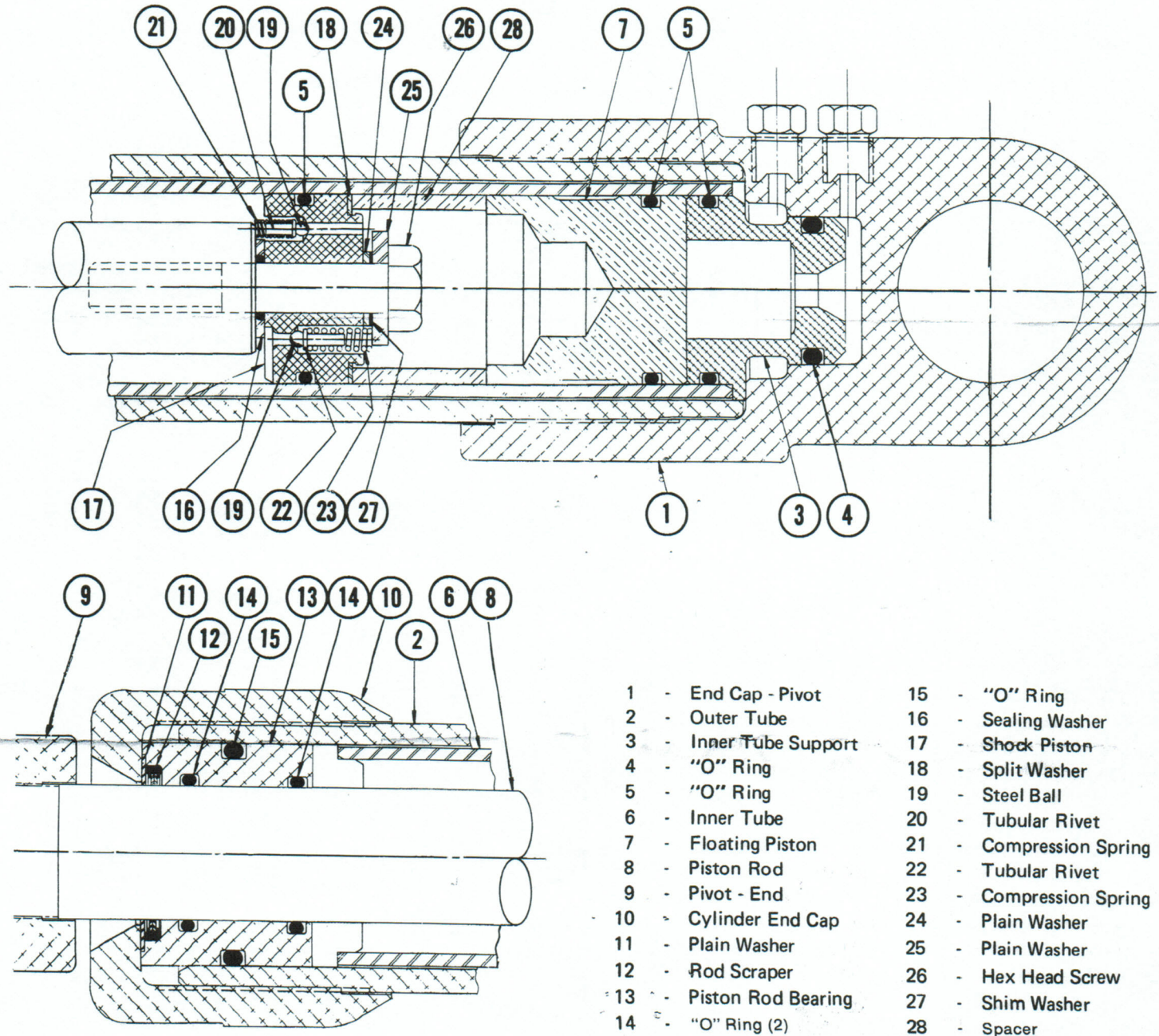


Figure 4. Cylinder Assembly Drawing