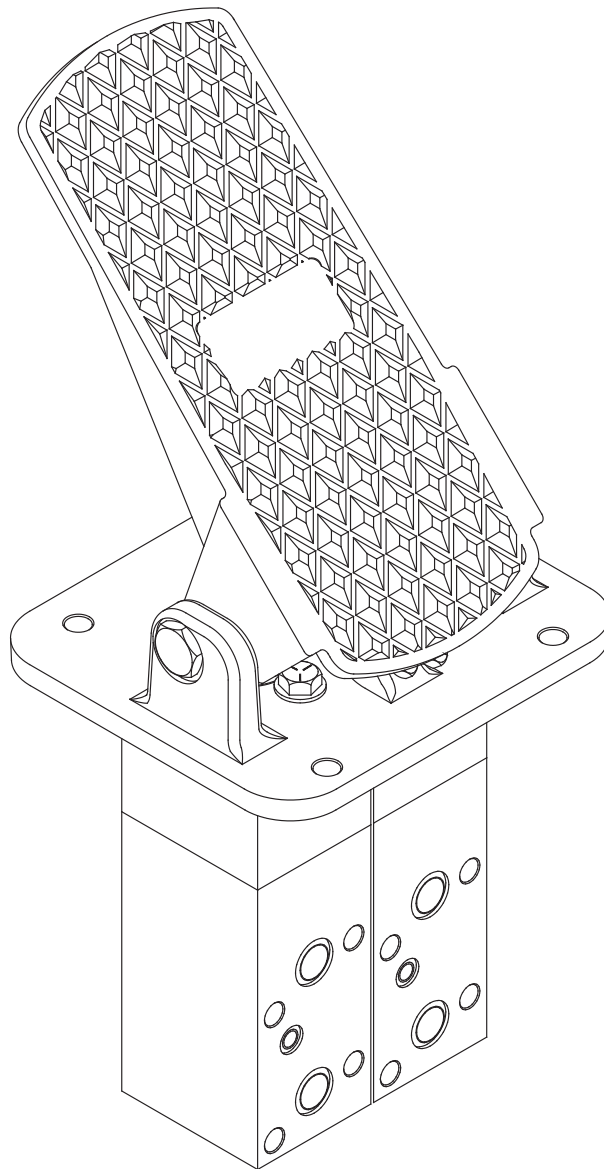


# PRESSURE MODULATING VALVE (Pedal Actuated - Dual Valve)



## Service Instructions



**FIGURE 1**

## DISASSEMBLY

(Refer to Figure 2)

1. Remove two threaded studs (1) and separate pedal (2) from base assembly (7).
2. Remove boot (3) from push rod (4) and base assembly (7).
3. Remove push rod (4) from base assembly (7) and valve assembly.
4. Separate valve assembly from base assembly (7) by removing cap screws (5) and washers (6).
5. Separate housing halves (9 & 32) by removing socket cap screws (8). Remove o-rings (30 & 31).
6. Remove piston (14) from housing (9). Remove back-up rings (10 & 13) and o-rings (11 & 12) from piston (14).
7. Remove piston (15), shim(s) (16), and spring (17) from housing (32). Note the number of shim(s) removed for reassembly purposes.
8. Remove o-ring (18) from housing (32) bore.  
**NOTE: Be careful not to scratch or mar housing bore.**
9. Remove retaining ring (19) from housing (32) bore.  
**NOTE: Be careful not to scratch or mar housing bore.**
10. Remove retainer (20) from housing (32) bore.
11. Remove retaining ring (21) from housing (32) bore.
12. Remove piston and sleeve assembly (22) from housing (32) bore. Separate piston (28) from sleeve (23).
13. Remove spring (29) from housing (32) bore.
14. Remove o-ring (25) and back-up ring (24) from sleeve (23).
15. Remove back-up ring (26) and cup (27) from piston (28). **NOTE: A check ball is located inside of piston (28). Make sure the ball is clean and moves freely.**
16. Remove plug (42) from housing (32).
17. Remove guide (36), spring (37), washer (38), cup (39), back-up ring (40), and o-ring (41) from plug (42).
18. Remove cage (35), and ball assembly (34) from housing (32) bore. Remove o-ring (33) from ball assembly (34).

## ASSEMBLY

(Refer to Figure 2)

CLEAN AND INSPECT ALL PARTS FOR WEAR. LUBRICATE ALL RUBBER COMPONENTS FROM REPAIR KIT WITH CLEAN SYSTEM FLUID.

1. Install new o-ring (33) on ball assembly (34) and insert into housing (32) bore. Note direction of ball assembly. **NOTE: Be sure ball assembly seat is fully seated into housing.**
2. Install new cage (35) into housing (32) bore.
3. Install new o-ring (41) on plug (42).
4. Insert new back-up ring (40), and new cup (39), inside of end plug (42). Note order of back-up ring (40) and cup (39).
5. Install washer (38), spring (37), and guide (36) in end plug (42). Install plug (42) in housing (32) and torque 54.3-67.8 N·m (40-50 lb·ft).
6. Install new cup (27) and new back-up ring (26) on piston (28) and insert into sleeve (23). Note direction of piston (28) and sleeve (23).
7. Install new back-up ring (24) and new o-ring (25) on sleeve (23).
8. Install new spring (29) on piston (27).
9. Install piston and sleeve assembly (22) in housing (32) bore. Note direction of assembly.
10. Install new retaining ring (21) in housing (32) bore.
11. Install retainer (20) and retaining ring (19) in housing (32) bore. **NOTE: Be careful not to scratch or mar housing bore.**
12. Install new o-ring (18) in housing (32) bore.
13. Install spring (17), shim(s) (16), and piston (15) in housing (32) bore. Be sure to install the same number of shim(s) as were removed during disassembly.
14. Install new back-up ring (13), new o-rings (11 & 12), and new back-up ring (10) on piston (14).
15. Lightly coat the inside bore of housing (9) with graphite base grease. Apply graphite base grease sparingly to the inside diameter of piston (14) where push-rod (4) makes contact.
16. Install piston (14) in housing (9) bore.
17. Install o-rings (30 & 31) on housing (32) and assemble housings (9 & 32) using socket head cap screws (8). Torque cap screws (8) 43.4-50.2 N·m (32-37 lb·ft).
18. Attach valve assembly to base assembly (7) using cap screws (5) and washers (6). Torque cap screws (5) 47.5-54.2 N·m (35-40 lb·ft).
19. Install push rod (4) and new boot (3).
20. Repeat DISASSEMBLY procedures 2-18 and ASSEMBLY procedures 1-19 for the other valve.
21. Apply a light coat of graphite base grease to the pin section of threaded studs (1). Re-attach pedal (2) to base assembly (7) using threaded studs (1). Torque threaded studs (1) 40.1-67.8 N·m (30-50 lb·ft).

### NOTE

After service, the valves must develop brake pressures of  $93.1 \pm 5.2$  bar ( $1350 \pm 75$  PSI). Shim(s) (16) may be added or removed to obtain the correct pressure setting.

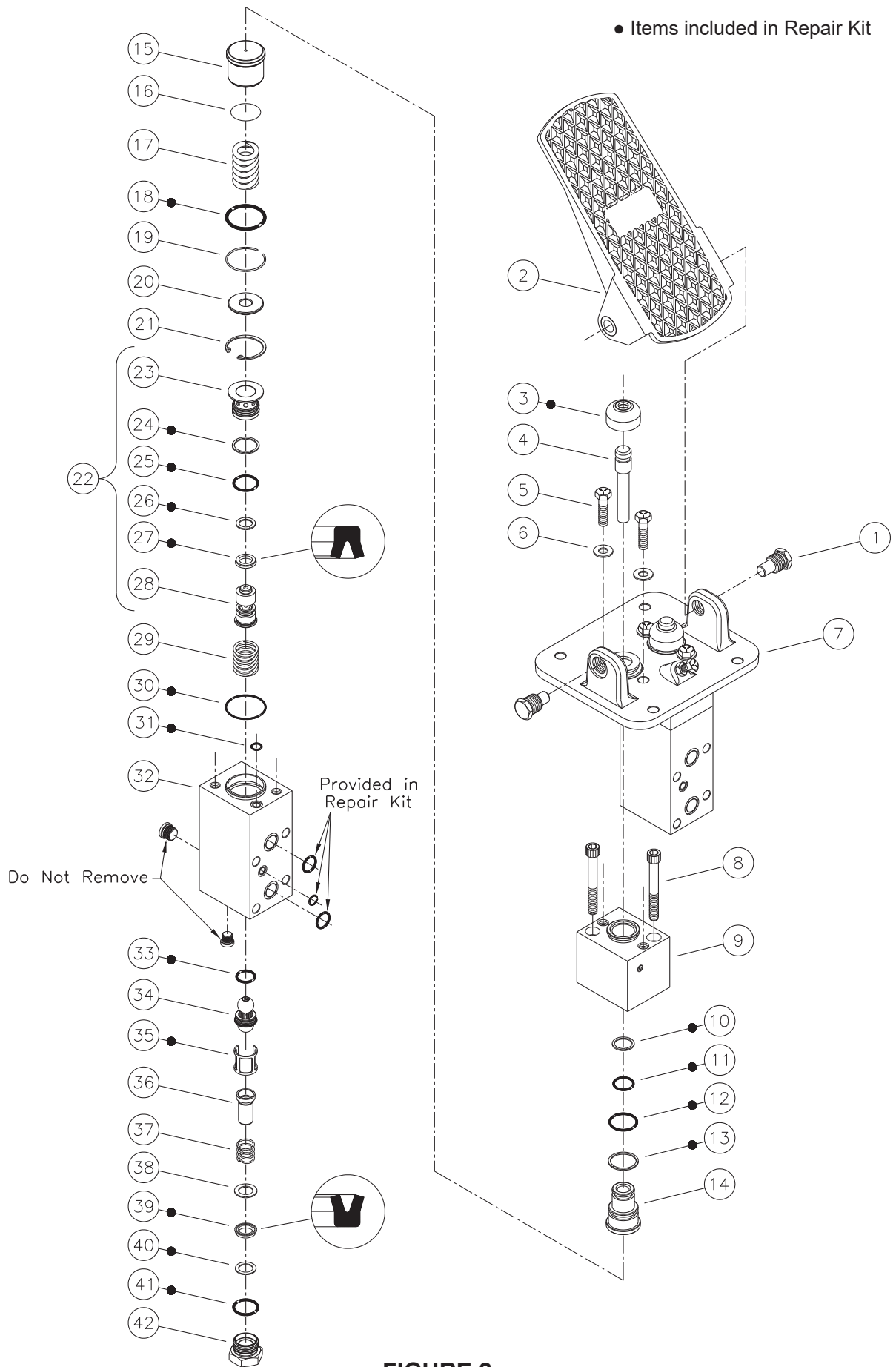


FIGURE 2

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