

Hydraulic/Air RELAY VALVE



Service Instructions

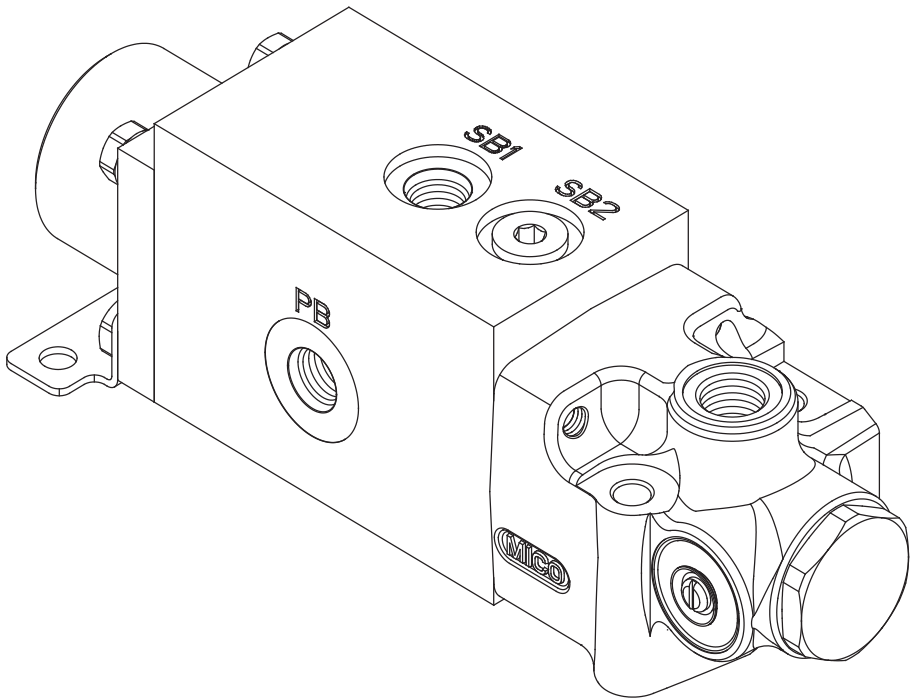


FIGURE 1

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DISASSEMBLY

(Refer to Figure 2)

1. Remove plug (1), spring (4), and piston (6) from housing (7). Discard piston (6) and o-ring (5). During reassembly use the new piston (6) and new o-ring (5) included in the repair kit.
2. Remove o-rings (2 & 3) from plug (1).
3. Separate housing (7) from housings (14 & 22) by removing four cap screws (25), two washers (24), and bracket (23).
4. Remove o-ring (8), spring (9), piston (11), o-ring (8) piston (19), spring (20), and shim(s) (21) from housings (7, 14 & 22). **NOTE: Be aware of the quantity of shim(s) removed from housing (22).**
5. **Earlier design** piston (19), discard piston (19). See Figure 2a. During reassembly use the new piston (19) included in the repair kit.
Later design piston (19), remove o-rings (13, 16, & 17), and back-up rings (15 & 18). Note the order of back-up rings (15 & 18) and o-rings (16 & 17). See Figure 2b.
6. Remove screw (30), washer (31), and baffle (32) from housing (7).
7. Remove four plugs (26) from housing (14). Remove o-rings (27) from plugs (26).
8. Remove plug (28) from housing (14). Remove o-ring (29) from plug (28).

ASSEMBLY

(Refer to Figure 2)

WASH ALL PARTS WITH CLEAN SOLVENT AND ALLOW TO DRY. LUBRICATE ALL ITEMS IN THE REPAIR KIT WITH A LIGHT COAT OF 30 WEIGHT MOTOR OIL. BE SURE THE ENTIRE ASSEMBLY PROCEDURE IS DONE USING CONTAMINATION FREE METHODS.

1. Install new o-rings (13, 16, & 17), and back-up rings (15 & 18) on new piston (19). Note the order of back-up rings (15 & 18) and o-rings (16 & 17). See Figure 2b.
2. Install new o-rings (10, 12, & 13) on piston (11).
3. Install new o-ring (8) on housing (14).
4. Install new o-ring (8) on housing (7).
5. Install shim(s) (21) and spring (20) in housing (22). Be sure to install the same quantity of shim(s) as were removed.
6. Install new piston (19) in housing (14).
7. Install spring (9) on piston (11) and install in housing (7).
8. Assemble housings (22, 14, & 7) using four cap screws (25), two washers (24), and bracket (23). Evenly torque cap screws (25) 21.7-28.5 N·m (16-21 lb·ft).
9. Install new o-ring (5) on new piston (6).
10. Install new o-rings (2 & 3) on plug (1).
11. Install piston (6), spring (4), and plug (1) in housing (7). Torque plug (1) 61.0-74.6.7 N·m (45-55 lb·ft).
12. Install new baffle (32), washer (31), and screw (30). Torque screw (30) 2.5-3.2 N·m (22-28 lb·in). See Figure 2c for direction of washer (31).
13. Install new o-rings (27) on four plugs (26). Install four plugs (26) in housing (14) and torque 13.6-19.0 N·m (10-14 lb·ft).
14. Install new o-ring (29) on new plug (28). Install plug (28) in housing (14) and torque 27.1-32.5 N·m (20-24 lb·ft).

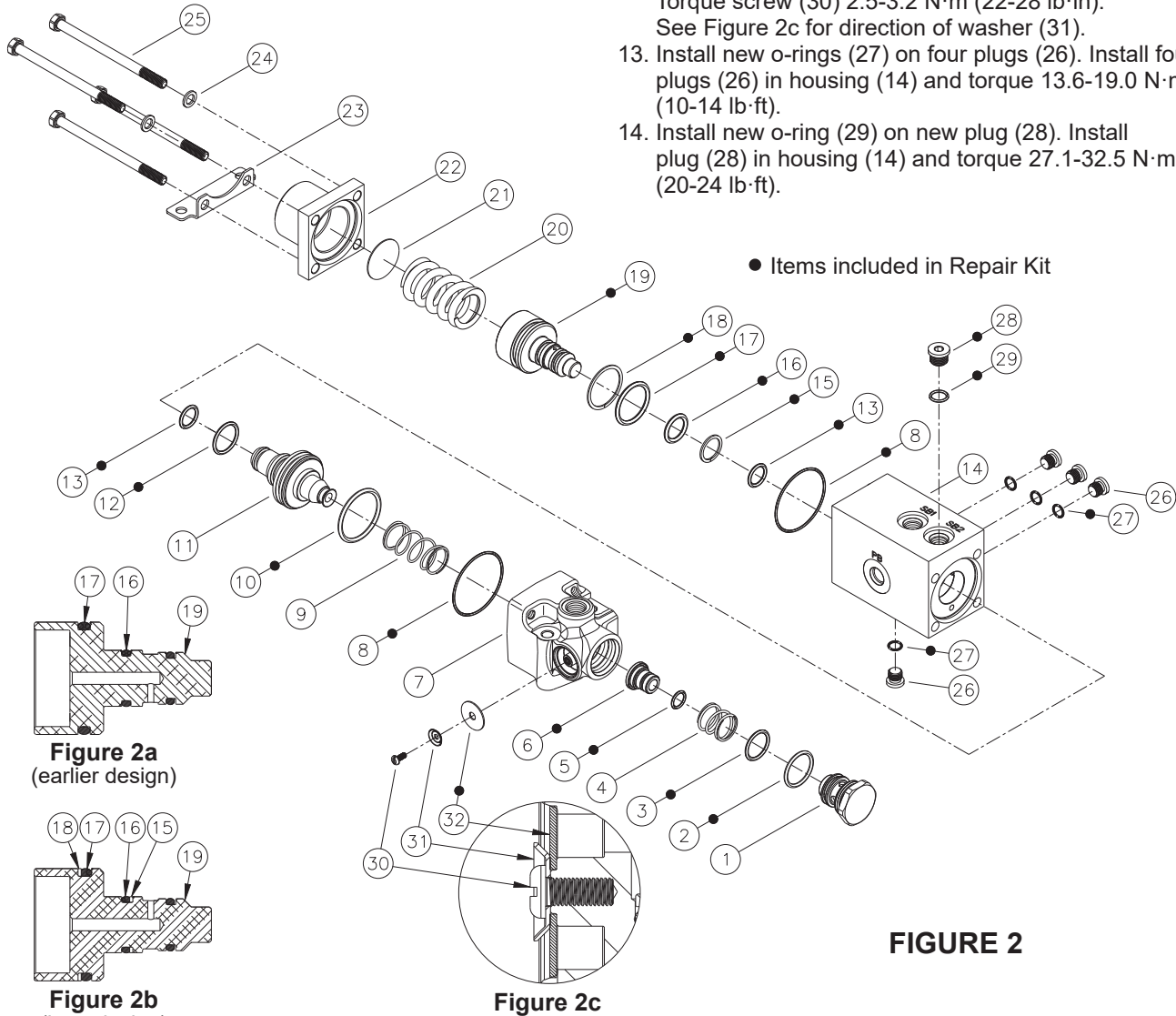


FIGURE 2