

# PRESSURE MODULATING VALVE



## Service Instructions

**TABLE 1** (Specifications)

Model Number	Nominal Brake Pressure Setting		Push Rod Force at Pressure Setting	
	bar	(PSI)	N	(lb)
06-460-302	124.1 ± 1.7	(1800 ± 25)	1534.6	(345)
06-460-304	103.4 ± 1.7	(1500 ± 25)	1334.5	(300)
06-460-320	51.7 ± 1.7	(750 ± 25)	756.2	(170)
06-460-326	103.4 ± 1.7	(1500 ± 25)	1334.5	(300)
20-100-741	118.9 ± 3.5	(1725 ± 25)	1467.9	(330)

Brake system displacement controlling factors are accumulator capacity, pressure, and brake response time required. Maximum input pressure rating is 206.8 bar (3000 PSI).

**NOTE: If your product number is not listed, contact ZF Off-Highway Solutions Minnesota Inc. for information.**

### DISASSEMBLY

1. Remove ring (1) and boot (2) from housing (16).
2. Remove piston (3), shim(s) (4), and spring (5) from housing bore. Note number of shim(s) being removed from housing.
3. Remove o-ring (6) from housing bore. **NOTE: Be careful not to scratch or mar housing bore.**
4. Remove retaining ring (7) from housing bore. **NOTE: Be careful not to scratch or mar housing bore.**
5. Remove retainer (8) from housing bore.
6. Remove retaining ring (9) from housing bore.
7. Remove piston and sleeve assembly (10 & 14) from housing bore. Separate piston (14) and sleeve (10).
8. Remove o-ring (12) and back-up ring (11) from sleeve (10).
9. Remove spring (15) from piston (14).
10. Remove cup (13) from piston (14).
11. Remove plug (26) from housing (16).
12. Remove o-ring (25), cup (23), and back-up ring (24) from plug (26).
13. Remove washer (22), sleeve (21), spring (20), and guide (19) from housing bore.
14. Remove valve assembly (18) from housing bore.
15. Remove o-ring (17) from valve assembly (18).

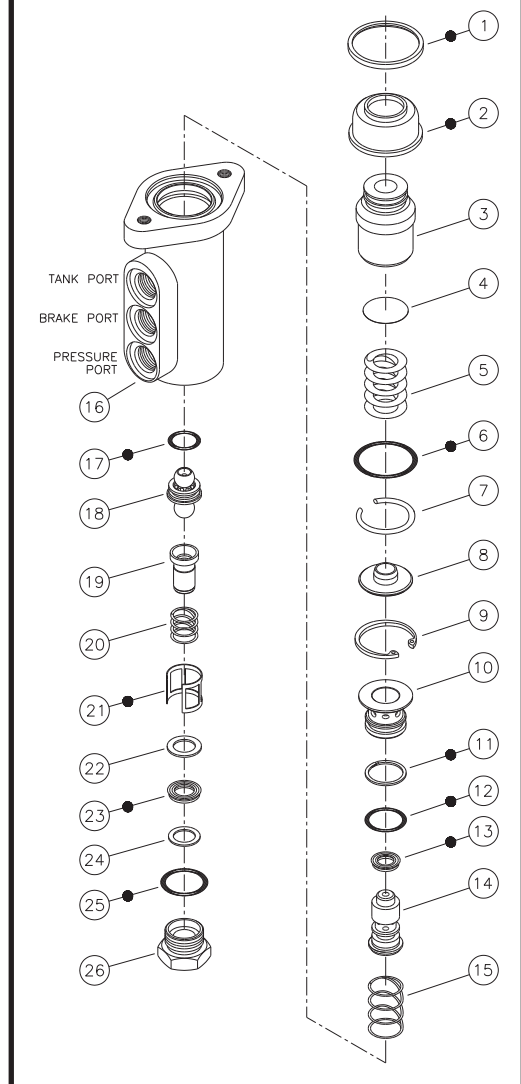
### ASSEMBLY

1. Install new o-ring (17) on valve assembly (18). Install valve assembly (18) into housing bore. Note direction of valve assembly.
2. Install new sleeve (21) into housing bore.
3. Install new o-ring (25) on plug (26).
4. Insert back-up ring (24) and new cup (23) inside plug (26). Note direction and order of back-up ring and cup.
5. Install guide (19), spring (20), and washer (22) in plug (26).
6. Install plug (26) in housing (16) and torque 47.5-54.2 N·m (35-40 lb-ft).
7. Install new cup (13) on piston (14) and insert into sleeve (10). Note direction of piston and sleeve.
8. Install new back-up ring (11) and new o-ring (12) on sleeve (10).
9. Install spring (15) on piston (14).
10. Install piston and sleeve assembly (10 & 14) in housing bore. Note direction of assembly.
11. Install retaining ring (9) in housing bore.
12. Install retainer (8) in housing bore.
13. Install retaining ring (7) in housing bore. **NOTE: Be careful not to scratch or mar housing bore.**
14. Install new o-ring (6) in housing bore.
15. Install spring (5), shims (4) and piston (3) in housing bore.
16. Install new boot (2) and new ring (1) in housing (16).

### CAUTION

For proper brake pressure setting, install the same number of shim(s) as were removed during disassembly.

### Items included in Repair Kit 06-400-083



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