

Service Instructions

Model	Repair Kit
Number	Number
03-460-031	02-400-183
20-460-019	02-400-245

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

DISASSEMBLY

Items included in Repair Kit

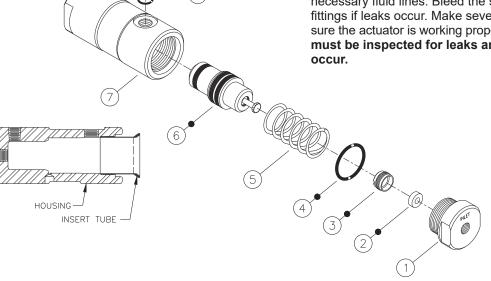
* Not included in all Repair Kits

- 1. Disconnect the necessary fluid lines and remove the actuator from the machine.
- 2. Remove end plug (1) from housing (7). NOTE: End plug is under tension of spring (5).
- 3. Remove o-ring (4), retainer (3), and seal (2) from end plug (1).
- 4. Remove spring (5) and piston assembly (6) from housing (7).
- 5. Remove adapter (9) or residual valve (9) from housing (7). Remove o-ring (8) from adapter (9).

ASSEMBLY

LUBRICATE ALL RUBBER COMPONENTS FROM REPAIR KIT WITH CLEAN TYPE FLUID USED IN THE SYSTEM.

- 1. Clean all parts thoroughly before assembling.
- 2. Using insert tube from repair kit, carefully install new piston assembly (6) into housing (7). Note the direction of piston assembly.
- 3. Place spring (5) in housing (7) over piston assembly (6).
- 4. Apply Loctite 242 to threads of new retainer (3). Install new seal (2) and new retainer (3) into end plug (1). Torque retainer (3) 16.3-19.0 N·m (12-14 lb·ft).
- 5. Install new o-ring (4) on end plug (1) and install in housing (7). Torque end plug 101.7-115.3 N·m (75-85 lb·ft).
- 6. Install new residual valve (9) in housing (7) or install new o-ring (8) on adapter (9) and install in housing (7). Torque 36.6-44.8 N·m (27-33 lb·ft).
- 7. Install the actuator on the machine. Connect the necessary fluid lines. Bleed the system of air. Tighten fittings if leaks occur. Make several applications to be sure the actuator is working properly. NOTE: All fittings must be inspected for leaks and tightened if leaks



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Form No. 81-460-097 Revised 2001-12-18 www.mico.com