

BRAKE SELECTOR VALVE



Service Instructions

TABLE 1

Model Number	Repair Kit Number	Model Number	Repair Kit Number
02-460-046 (BF)	02-400-010	03-460-023 (BF)	02-400-010
02-460-601 (BF)	02-400-010	03-460-086 (HO)	02-400-098

BF = Brake Fluid HO = Hydraulic Oil

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

DISASSEMBLY

(Refer to Figure 1)

1. Disconnect necessary fluid lines. Remove valve from the machine and drain fluid before disassembling.
2. Place housing (14) in soft jaw vise and remove end plug assembly (1).

CAUTION

End plug assembly is under tension of spring (5).

3. Remove o-ring (4), retainer (3), and seat (2) from end plug (1).
4. Remove springs (5 & 6) and piston assembly (13) from housing (14). **NOTE: Not all models use spring (6).**
5. Remove retainer (7) from piston (10) and remove lock (11) by pushing stem (8) into piston (10).
6. Remove stem (8) and spring (9) from piston (10).

ASSEMBLY

(Refer to Figure 1)

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

1. Clean all parts thoroughly with clean type fluid used in system.
2. Carefully install two new cups (12) on new piston (10). Note the direction of cups (12), see Figure 1a.
3. Install new spring (9), stem (8), and new lock (11) in new piston (10).
4. Install retainer (7) on new piston (10) and install piston assembly (13) and springs (5 & 6) into housing (14). **NOTE: Not all models use spring (6).**
5. Install new seat (2) and new retainer (3) in end plug (1). Torque retainer 9.5-13.6 N·m (7-10 lb·ft).
6. Install new o-ring (4) on end plug (1). Install end plug (1) in housing (15) and torque 81.4-108.5 N·m (60-80 lb·ft).
7. Install the valve on the machine. Connect the necessary fluid lines. Bleed the system of air. Tighten fittings if leaks should occur. Make several applications to be sure valve is working properly. **NOTE: All fittings must be inspected for leaks and tightened if leaks occur.**

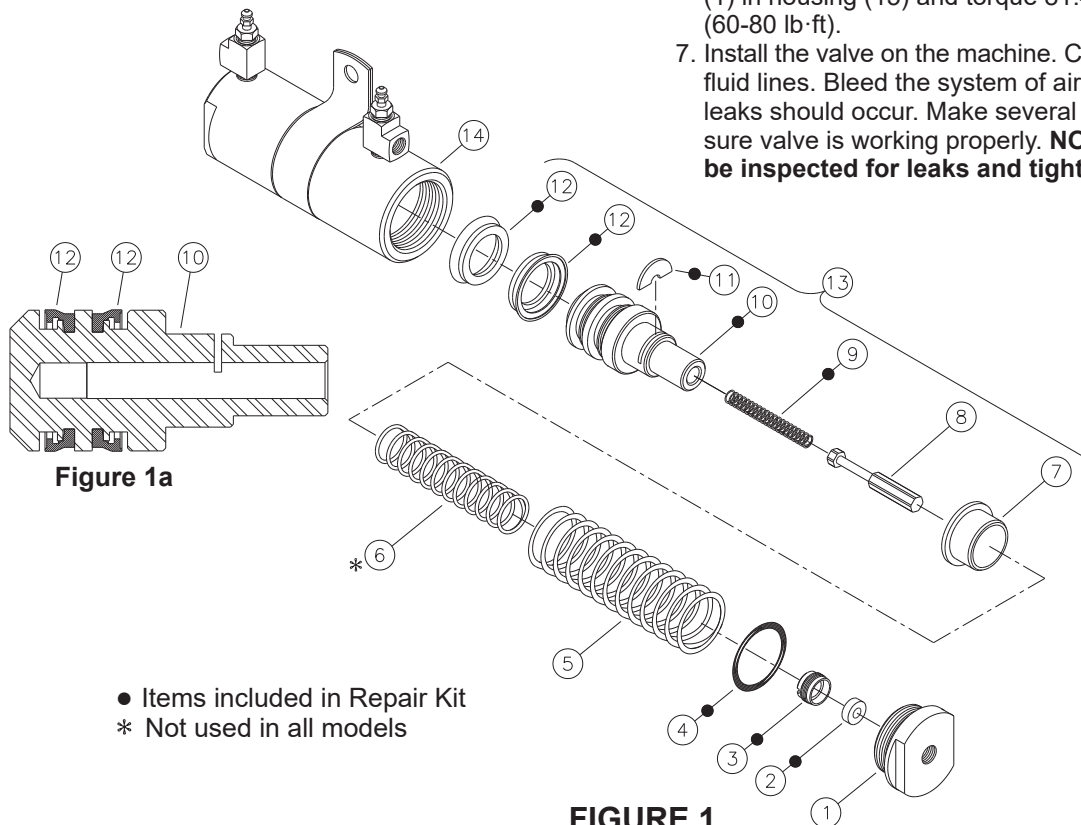


FIGURE 1

TABLE 2

Model Number	Repair Kit Number
03-460-091 (HO)	02-400-053

HO = Hydraulic Oil

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

DISASSEMBLY

(Refer to Figure 2)

1. Disconnect necessary fluid lines. Remove valve from the machine and drain fluid before disassembling.
2. Place housing (14) in soft jaw vise and remove end plug assembly (1). **▲ CAUTION**

End plug assembly is under tension of spring (5).

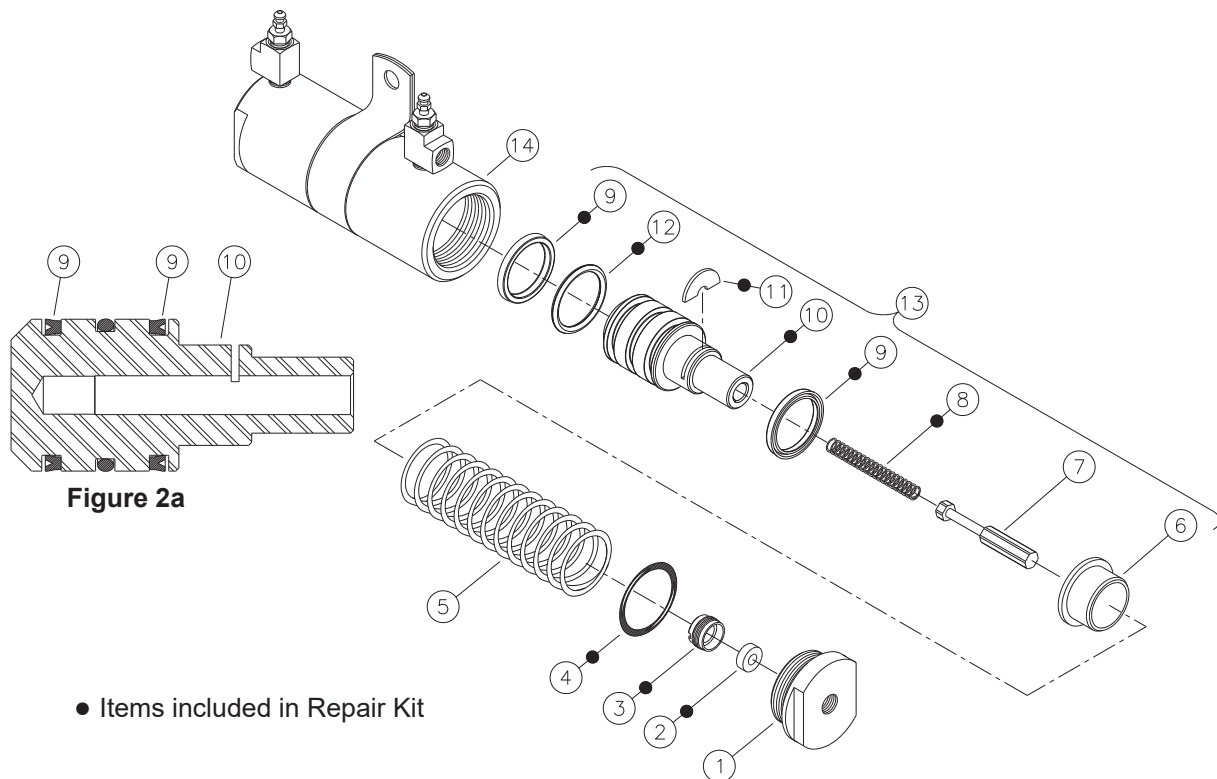
3. Remove o-ring (4), retainer (3), and seat (2) from end plug (1).
4. Remove spring (5) and piston assembly (13) from housing (14).
5. Remove retainer (6) from piston (10) and remove lock (11) by pushing stem (7) into piston (10).
6. Remove stem (7) and spring (8) from piston (10).

ASSEMBLY

(Refer to Figure 2)

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

1. Clean all parts thoroughly with clean type fluid used in system.
2. Carefully install new o-ring (12) and two new cups (9) on new piston (10). Note the direction of cups (9), see Figure 2a.
3. Install new spring (8), stem (7), and new lock (11) in new piston (10).
4. Install retainer (6) on new piston (10) and install piston assembly (13) and spring (5) into housing (14).
5. Install new seat (2) and new retainer (3) in end plug (1). Torque retainer 9.5-13.6 N·m (7-10 lb·ft).
6. Install new o-ring (4) on end plug (1). Install end plug (1) in housing (14) and torque 81.4-108.5 N·m (60-80 lb·ft).
7. Install the valve on the machine. Connect the necessary fluid lines. Bleed the system of air. Tighten fittings if leaks should occur. Make several applications to be sure valve is working properly. **NOTE: All fittings must be inspected for leaks and tightened if leaks occur.**

**Figure 2a**

● Items included in Repair Kit

FIGURE 2

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