Boosted MASTER CYLINDER

Conversion Instructions

Kit Number 02-001-272

(This Kit is for converting Model 02-460-507 to Model 02-460-519)

Does not include residual check valve.

Separating Air Chamber From Master Cylinder

1. Remove air/hydraulic actuator from vehicle by disconnecting necessary air and fluid lines, and removing mounting bolts. Drain fluid from assembly.
2. Separate air chamber and mounting bracket from master cylinder by removing two nuts and two lockwashers.

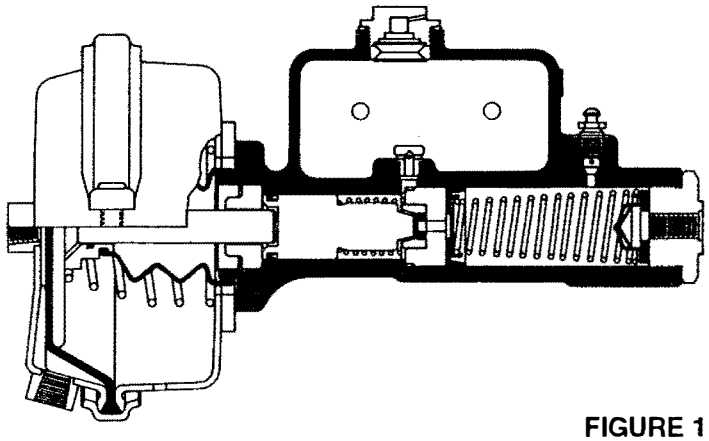

FIGURE 1

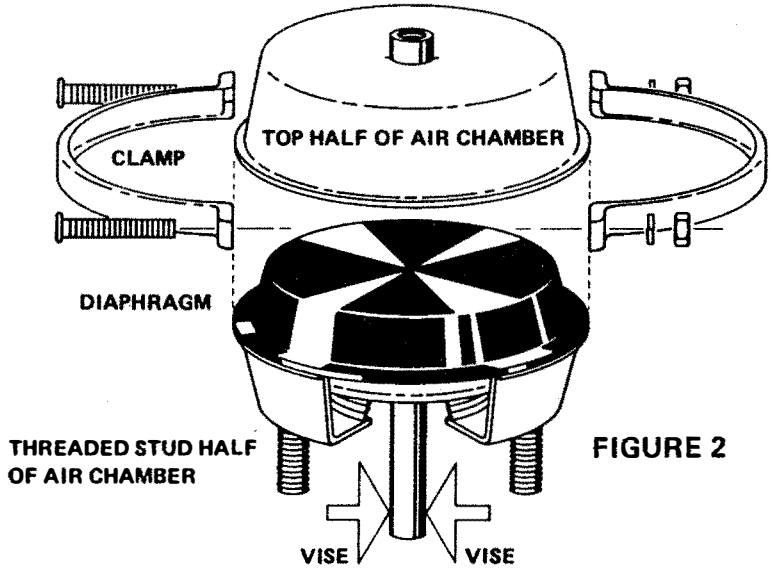

FIGURE 2

DIAPHRAGM REPLACEMENT NUMBERS

Model No.	Diaphragm No.
02-460-507	42-490-007

DIAPHRAGM REPLACEMENT (Refer to Figure 2)

CAUTION: **Air chamber is under spring tension. Care must be taken at all times during disassembly and assembly of air chamber.**

1. Place air chamber in vise with threaded studs and push rod down. Clamp vise on push rod. **NOTE: The diameter of push rod is greater than that of the threaded studs, so no damage will be done to threads.**
2. Remove nuts and lockwashers from clamp around air chamber. Remove clamp from chamber.
3. Remove top half of air chamber and diaphragm.
4. Install new diaphragm.
5. Replace top half of air chamber. **NOTE: Be sure all edges match up.**
6. Assemble clamps around air chamber. Torque to 24 ft. lbs.
7. Remove air chamber from vise.

MASTER CYLINDER DISASSEMBLY (Refer to Figures 1 and 3)

1. Drain fluid from unit before disassembling.
2. Remove guide (13) and boot (12) from cylinder.
3. Remove end plug (1) from cylinder housing (7). **NOTE: End plug (1) is under tension of springs (3).** Remove o-ring (2) from end plug (1).
4. Remove springs (3), retainer (4), cup (5) and piston assembly (6) from cylinder.
5. Remove retaining ring (11) and bearing (10) from cylinder.
6. Use a wooden dowel to push piston and spring assembly (8) out the flange end of the cylinder.
7. Remove cup (9) from piston and spring assembly (8).
8. Remove filler plug (15) and gasket (14) from cylinder.

MASTER CYLINDER ASSEMBLY (Refer to Figures 1 and 3)

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

1. Clean all parts thoroughly before assembling.
2. Install new cup (9) on piston and spring assembly (8). Note direction of cup.
3. Install piston and spring assembly (8) through mounting flange end of cylinder. Note direction of piston and spring assembly.
4. Install bearing (10) and new retaining ring (11) in cylinder. **NOTE: Care must be taken so as not to mar cylinder bore.**
5. Install new piston assembly (6). Note direction of piston assembly.
6. Install new cup (5) in cylinder. Note direction of cup.
7. Assemble retainer (4) to the small end of the largest spring (3). Stack other two springs (3) inside largest spring and insert assembly into cylinder (7) bore. Insert retainer end of assembly first.
8. Install new o-ring (2) on end plug (1) and install in cylinder.
9. Install boot (12) on guide (13) and then install boot on cylinder.
10. Install new gasket (14) and filler plug (15) on cylinder.

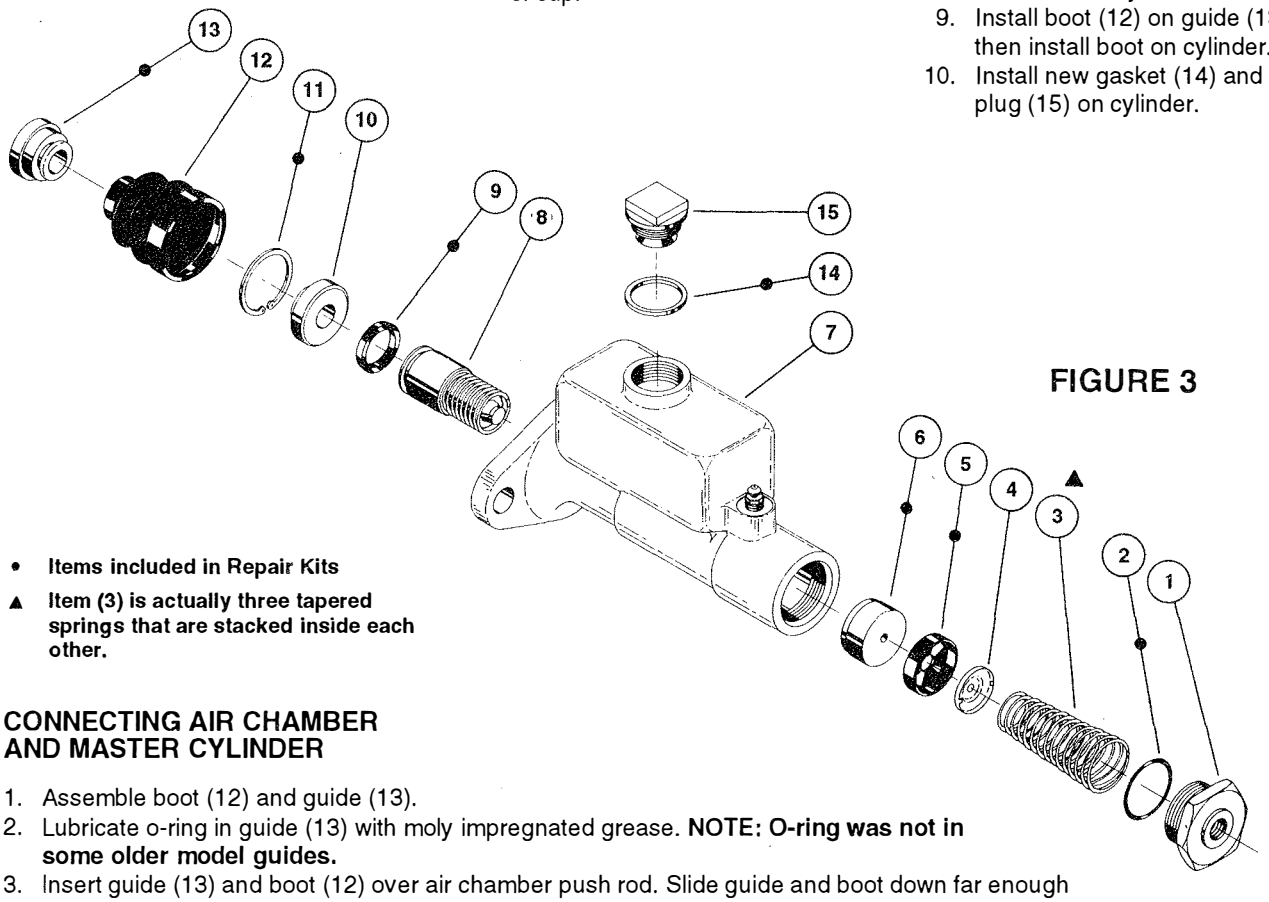

FIGURE 3

- • **Items included in Repair Kits**
- ▲ **Item (3) is actually three tapered springs that are stacked inside each other.**

CONNECTING AIR CHAMBER AND MASTER CYLINDER

1. Assemble boot (12) and guide (13).
2. Lubricate o-ring in guide (13) with moly impregnated grease. **NOTE: O-ring was not in some older model guides.**
3. Insert guide (13) and boot (12) over air chamber push rod. Slide guide and boot down far enough to expose push rod but leave boot accessable.
4. Lubricate push rod with moly impregnated grease.
5. Attach boot (12) to master cylinder while assembling air chamber, bracket and master cylinder. Install lockwashers and nuts on air chamber studs and torque to 20 ft. lbs.
6. Install unit on vehicle. Connect air and fluid lines. Bleed fluid system of air. Tighten fittings if leaks should occur. Make several applications to be sure actuator is working properly.

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