# BOOSTED MASTER CYLINDER (Power Assist Section)



## Service Instructions

#### NOTE

Not all parts listed in these service instructions are used in all models. Only replace repair kit parts used in your model. This Repair Kit services several different Boosted Master Cylinder Power Assist Sections.

If your unit has an end plug being held in place by a retaining ring, you should follow the service instructions in Section A. If your unit has a threaded end plug, follow the service instructions in Section B.

## **SECTION A**

## Disassembly

(Refer to Figure 1)

- 1. Drain fluid from unit before disassembling.
- 2. Remove push rod (1) and boot (2) from end plug (4).
- 3. Remove retaining ring (3). **NOTE: Retaining ring is under tension of spring (14).**
- 4. Remove internal parts assembly (27) from housing (16).
- 5. Remove spring (14) and retainer (13) from internal parts assembly (27).
- 6. Remove end plug (4) from piston (7). Remove o-ring (5) from end plug.
- Remove retaining ring (15) from piston (7).
   NOTE: Retaining ring is under tension of spring (11).
- 8. Remove piston (12) from piston (7). Remove spring (11) from piston (7).
- 9. Remove cups (6 & 8) from piston (7).
- 10. Remove piston (10) from piston (7), then remove o-ring (9) from piston (10).
- 11. Remove retaining ring (21) from housing. Remove washer (20), back-up ring (19), cup (18), and washer (17).
- 12. Remove plug (26) from housing. **NOTE: Plug is under tension of spring (24).**
- 13. Remove o-ring or copper ring (25) from plug (26).

  NOTE: If an o-ring is found on plug, replace with an o-ring. If a copper ring is found on plug, replace with a copper ring.
- 14. Remove spring (24), shim(s) (23), and valve stem (22) from housing. **NOTE: Be aware of the number of shim(s) removed from housing.**

## **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 before assembling.
- Install valve stem (22), shim(s) (23), and spring (24) into housing (16). Be sure to install the same number of shim(s) as were removed.
- 3. Install new o-ring or new copper ring (25) on plug (26).

  NOTE: If an o-ring is found on plug, replace with an o-ring. If a copper ring is found on plug, replace with a copper ring. Install plug (26) in housing.
- 4. Install new steel washer (17) into housing. Steel washer (17) is thinner than brass washer (20).
- 5. Install new cup (18), new back-up ring (19), new brass washer (20), and new retaining ring (21) into housing. Note direction and order of parts. NOTE: Be careful when installing cup so as not to scratch or mar retaining ring groove or housing bore.
- 6. Install new o-ring (9) on piston (10).
- 7. Install piston (10) on piston (7). Note direction of piston (10).
- 8. Install new cups (6 & 8) on piston (7). Note direction of cups. **NOTE: Back-up rings are no longer used.**
- 9. Install spring (11) on piston (7).
- 10. Install piston (12) over spring (11) and piston (7).
- 11. Install new retaining ring (15) on piston (7).

  NOTE: Pistons (10 & 12) must be compressed to install retaining ring on piston (7).
- 12. Install new o-ring (5) on end plug (4).
- 13. Install end plug (4) into piston (7).
- 14. Install retainer (13) over piston (12) and install spring (14) over retainer (13).
- 15. Install internal parts assembly (27) into housing. Use a twisting motion when inserting end of piston (7) through cup (18).
- 16. Install retaining ring (3) into housing.
- 17. Install new boot (2) on end plug (4). Install push rod (1) into boot. NOTE: Apply a small amount of good quality grease on the tip of push rod.

# **SECTION A**

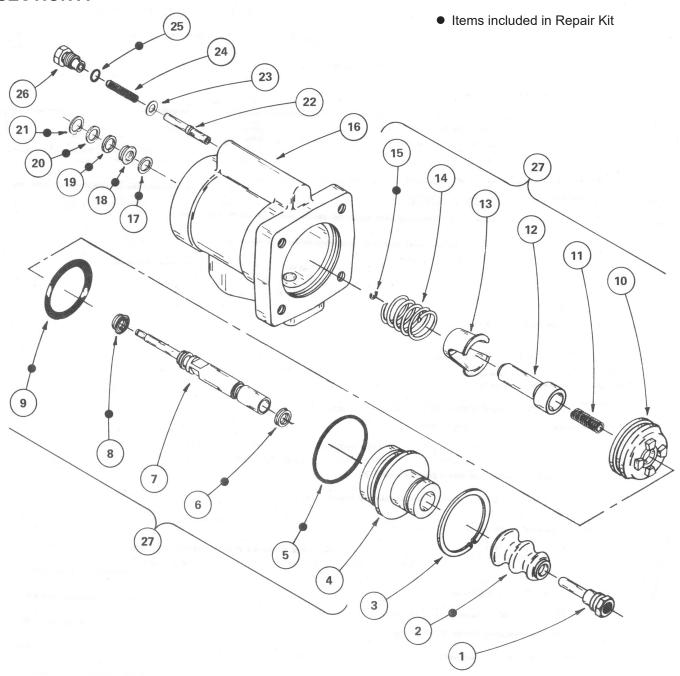


FIGURE 1

### **SECTION B**

## Disassembly

(Refer to Figure 2)

- 1. Drain fluid from unit before disassembling.
- 2. Remove push rod (1) and boot (2) from end plug (3).
- 3. Loosen end plug (3) using a spanner wrench and remove internal parts assembly (25) from housing (17).
- 4. Remove spring (15) and retainer (14) from internal parts assembly.
- 5. Remove end plug (3) from piston (7). Remove o-ring (4) from end plug. Remove cup (6) and back-up ring (5) from bore of end plug. NOTE: Be careful not to scratch bore of end plug (3) when removing cup and back-up ring.
- 6. Remove piston (9) from piston (7). Remove piston ring (8) from piston (9). **NOTE: Be careful not to scratch piston (9) when removing piston ring (8).**
- Remove retainer ring (16) from piston (7).
   NOTE: Retainer ring is under tension of spring (10).
- 8. Remove piston (13) from piston (7). Remove cup (11) and back-up ring (12) from bore of piston (13). NOTE: Be careful not to scratch bore of piston (13) when removing cup and back-up ring.
- 9. Remove spring (10) from piston (7).
- Remove cup (18) and back-up ring (19) from housing.
   NOTE: Be careful not to scratch housing bore when removing cup and back-up ring.
- 11. Remove plug (24) from housing. **NOTE: Plug is** under tension of spring (22).
- 12. Remove o-ring (23) from plug (24).
- Remove spring (22), shim(s) (21) and valve stem (20) from housing. NOTE: Be aware of the number of shim(s) removed from housing.

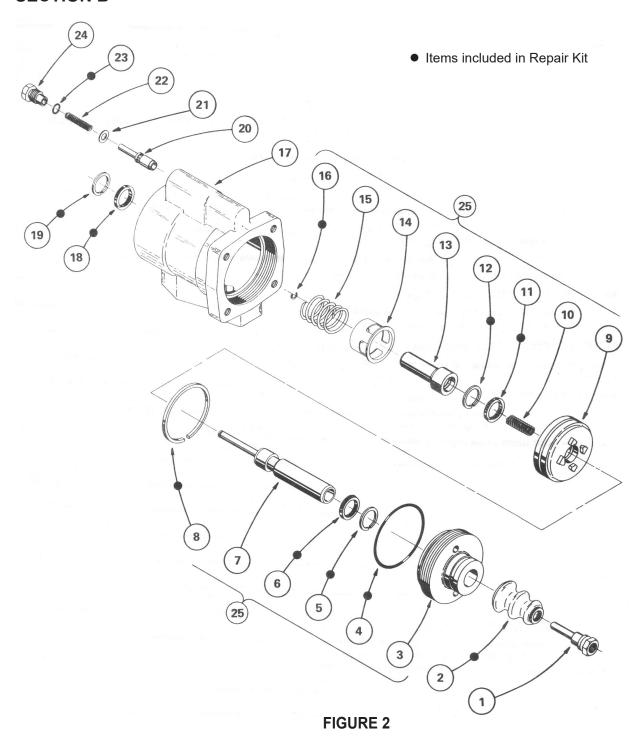
### Assembly

(Refer to Figure 2)

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

- 1. Clean all parts thoroughly before assembling.
- 2. Install valve stem (20), shim(s) (21) and spring (22) in housing. Be sure to install the same number of shim(s) as were removed. **NOTE: Valve stem (20)** must move freely in housing (17).
- 3. Install new o-ring (23) on plug (24) and install in housing.
- 4. Install new cup (18) and new back-up ring (19) in housing. Note direction of cup.
- 5. Install new back-up ring (5) and new cup (6) in end plug (3). Note direction of cup.
- 6. Install spring (10) on piston (7).
- Install new back-up ring (12) and new cup (11) in piston (13). NOTE: Be careful not to mar piston bore.
- 8. Install piston (13) over spring (10) and piston (7).
- 9. Install new retaining ring (16) on piston (7).
- 10. Install new piston ring (8) on piston (9). NOTE: Be careful not to scratch piston (9) when installing new piston ring (8).
- 11. Install piston (9) on piston (7). Note direction of piston (9).
- 12. Install new o-ring (4) on end plug (3).
- 13. Install end plug (3) on piston (7).
- 14. Install retainer (14) over piston (13) and install spring (15) over retainer (14).
- 15. Install internal parts assembly (25) into housing bore. Use a spanner wrench to tighten.
- 16. Install new boot (2) on end plug (3). Install push rod (1) into boot. NOTE: Apply a small amount of good quality grease on the tip of push rod.

## **SECTION B**



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