



MASTER CYLINDER

Service Instructions

DISASSEMBLY

1. Remove filler plugs (8 & 9) and gaskets (7 & 10) from housing (11).
2. Drain fluid from the unit before disassembling.
3. Remove push rod (1) and boot (2) from housing (11).
4. Depress piston (5) and remove retaining ring (3) from housing (11).
5. Remove piston (5) from housing (11). **NOTE: Be careful not to scratch or mar housing bore when removing piston (5).**
6. Remove cup (4) and spring (6) from piston (5).
7. Place the master cylinder in a soft jawed vise in a vertical position with end plug (15) facing up.
8. Remove line bolt (19), fitting block (17), and gaskets (16 & 18) from end plug (15).
9. Remove end plug (15) from housing (11).

⚠ CAUTION

End plug (15) is under tension of spring (13).

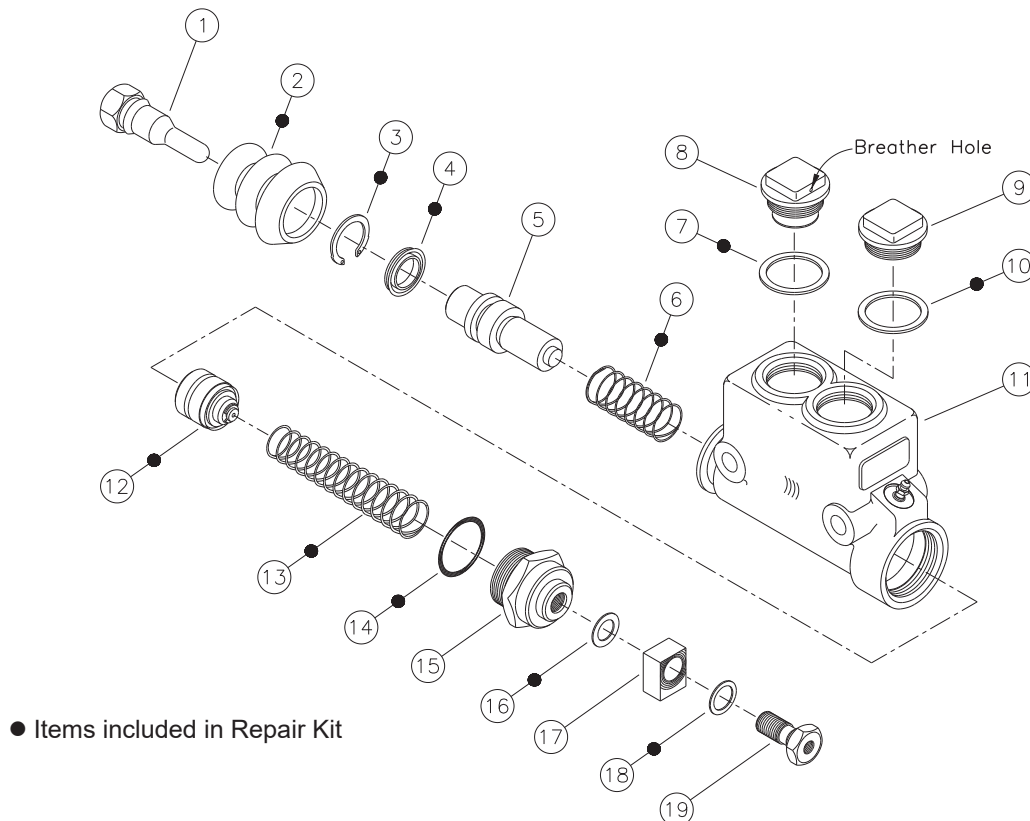
10. Remove o-ring (14) from end plug (15).
11. Remove spring (13) from housing.
12. Use a wooden dowel to push piston assembly (12) out end plug (15) side of housing (11) bore.

ASSEMBLY

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

1. Clean all parts thoroughly before assembling.
2. **NOTE: Before installing filler plug (8) be sure the filler plug breather hole is free of all contaminants. Use air pressure to clean and dry this hole.** Install new gaskets (7 & 10) on filler plugs (8 & 9) and install on housing (11).
3. Carefully install new piston assembly (12) in housing (11). Note direction of piston assembly (12). **NOTE: Be careful not to scratch or mar piston assembly or housing (11) bore.**
4. Install new spring (13) in housing (11) with the small diameter end on piston assembly (12).
5. Lubricate the threads of end plug (15). Install new o-ring (14) on end plug (15) and install end plug (15) in housing (11). Torque end plug (15) 67.8-108.5 N·m (50-80 lb·ft).
6. Install new gaskets (16 & 18) and fitting block (17) on line bolt (19) and finger tighten assembly in housing (11).
7. Remove the master cylinder from the vise.
8. Install new spring (6) and new cup (4) on piston (5) and install in housing (11). Note direction of piston (5).

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9. Depress piston (5) and install new retaining ring (3) in housing (11).
10. Install new boot (2) and push rod (1) on housing (11).
11. Install the master cylinder on the machine and connect the fluid lines. Hold fitting block (17) in a fixed position and torque line bolt (19) 47.5-61.0 N·m (35-45 lb·ft). Connect the push rod. Fill the reservoir and bleed the system of air. Tighten fittings if leaks occur. Make several applications to be sure the master cylinder is working properly. **NOTE: See form 81-600-001 instructions to bleed this cylinder. Refer to the machine manufacture specifications to bleed the machine brake system. All fittings must be inspected for leaks and tightened if leaks occur.**
12. After bleeding is completed, fill the reservoir to within 12.7 mm (0.50 in) of the top. Install and torque filler plugs (8 & 9) 33.9-47.5 N·m (25-35 lb·ft).

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