

Manual Brake Bleeding Instructions for Model 6 Actuators

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The presence of air in brake lines will significantly reduce braking efficiency and cause a spongy brake condition. There are several methods for bleeding air the trailer brake systems. The Model 6 actuator may be bled by pressure or vacuum products, or by manually bleeding the system. If using pressure or vacuum equipment, follow the manufacturer's instructions. These products are available at many auto supply stores.

The first step in bleeding the brakes is to make sure that the coupler case is fully extended. The brakes cannot be successfully bled unless the actuator is pulled out to maximum length. If necessary, chock the trailer wheels and carefully pull the trailer forward until the actuator is fully extended.

If you choose to manually bleed the Model 6 actuator, the breakaway lever and spring will need to be removed (items 7 and 9 in the instruction manual). Two master cylinder mounting bolts (items 10 on the parts explosion) will need to be removed on each side of outer case to take off the master cylinder assembly. Then the breakaway lever and spring (items 7 & 9) can be taken off. Then remount the master cylinder assembly with two bolts on each side.

Remove the filler cap and fill reservoir to three quarters full with DOT 3-4 brake fluid. Then a long flat blade screw driver can be inserted into the breakaway lever slot in the top of the outer case. The end of the screw driver should contact the front of the pushrod block (item 14) and then be used as a lever to force the push rod into the master cylinder and stroke brake fluid into the trailer system. It would also force air in the bore of the master cylinder to bubble up from a small hole located in the center of the bottom of the reservoir. When the air bubbles stop coming from the hole, a small amount of brake fluid will squirt up through the same opening. Caution: If the master cylinder is stroked too vigorously, brake fluid may spurt out of the master cylinder and cause operator injury or damage to painted surfaces.

A helper will be needed to open and close the bleeder screw on the brake assembly. An open end wrench, a piece of clear plastic tubing to fit over the end of the bleeder screw, and clean clear container for the brake fluid are also needed. The tubing should be long enough so that an upward loop in the tube (higher than the level of the bleeder screw) can be used to more easily detect air bubbles. Start bleeding the brakes by going to the brake assembly the longest distance from the actuator. Use the top bleeder screw and open it about ½ a turn before the pushrod is stroked into the master cylinder. When the push rod is pushed all the way in, the bleeder screw should be closed to prevent air from re-entering the system. Then release the pressure on the pushrod allowing it to return normal position and wait for several seconds before starting the next the cycle. Continue the process until no more air bubbles are seen in the tubing. Tighten the bleeder screw and move to the next brake. Monitor the brake fluid level to maintain a minimum of one third full reservoir. Continue until all the brakes assemblies have been bled. Refill reservoir with unused clean DOT 3-4 brake fluid to within one half inch of the top.