

# Bendix Brake

## Alert

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## Bench Bleeding the GM Quick Take-up Master Cylinder

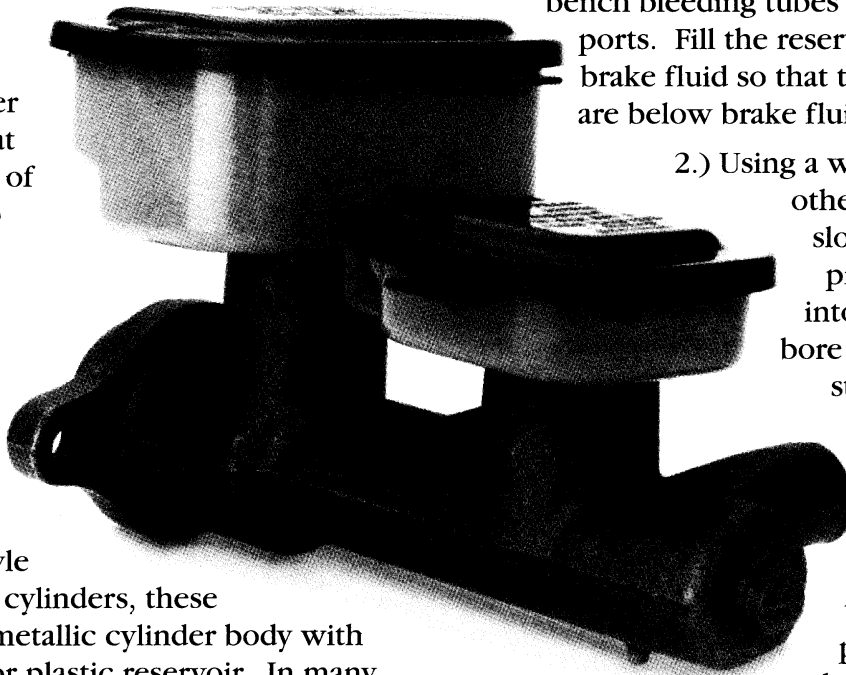
Although they have been around for 15 years, there is still some mystery surrounding the GM Quick Take-Up master cylinder. These master cylinders are used in conjunction with the Low-Drag caliper (see Bendix Brake Alert 94-07, October 1994) to ensure that a sufficient volume of fluid is delivered to activate the caliper upon initial brake application.

GM Quick Take-Up master cylinders are easily identified by their appearance. Unlike the older style one-piece cast iron cylinders, these units utilize a cast metallic cylinder body with an attached nylon or plastic reservoir. In many applications they are mounted on the vehicle at an angle.

In addition to their appearance, the correct technique for bench bleeding these cylinders is also different. Attempting to bench bleed a Quick Take-Up master cylinder following the traditional procedure will result in failure to achieve a firm, solid pedal. In many cases these cylinders are written off as defective, when, in fact, they are the victim of improper bleeding.

The following procedure should be used when bench bleeding Quick Take-Up master cylinders:

- 1.) Clamp the master cylinder in a vise by the mounting flange. Install the appropriate bench bleeding tubes in the outlet ports. Fill the reservoir with clean brake fluid so that the bleed tubes are below brake fluid level.
- 2.) Using a wooden dowel or other similar tool, slowly push the piston assemblies into the cylinder bore to a maximum stroke of 1 1/2". **Do not bottom out the pistons.** *Slowly* allow the piston assemblies to return completely against the snap ring.
- 3.) **Wait 10-15 seconds** and then repeat step 2 until bubbles cease to appear in the brake fluid.
- 4.) When bubbles have ceased to appear, slowly push the pistons approximately 1/2" into the cylinder bore, then release to about 1/4". Now make a series of short, rapid strokes of about 1/4" until no more bubbles come out of the ports in the bottom of the reservoir.



5.) Repeat steps 2 & 3. Remove the bleed tubes and plug the master cylinder outlets to keep the fluid from draining.

The master cylinder is now properly bled and ready for installation on the vehicle. After installing the cylinder, the remainder of the brake system should be bled, following

the manufacturer's recommended procedure for the particular vehicle.

The results will be a firm, solid brake pedal for the vehicle, a savings of time and aggravation for the installer and a reduction in "defective" cylinders for the supplier.



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