OVERHAUL (Continued)

Assembly

1. Dip replacement piston assemblies in clean Heavy-Duty Brake Fluid C6AZ-19542-AA (ESA-M6C25-A) or DOT-3 equivalent for lubrication prior to assembly into cylinder.
2. Install secondary (smaller) piston assembly into bore, spring end first.
3. Install primary piston assembly, spring end first.
4. Depress primary piston and install snap ring.
5. Install pressure control valves as outlined.
6. Fill and bleed master cylinder. Refer to Hydraulic System Bleeding procedure.
7. Install cap on master cylinder reservoir and secure.

ADJUSTMENTS

Brake Vacuum Booster Push Rod-To-Master Cylinder

ABS Vehicles

The vacuum booster push rod (output rod) is not adjustable. The push rod length is set during assembly. A properly set push rod that remains within the booster after it was assembled in production, should never require service.

A booster that is suspected of having an improper set push rod length will indicate either of the following:

- A push rod which is too long, will prevent the master cylinder piston from completely releasing hydraulic pressure and cause brakes to drag.
- A push rod which is too short will increase brake pedal travel and cause a clunk or groaning noise from the booster.

If necessary, booster push rod length can be verified with a depth micrometer using the following procedure:

1. Without disconnecting the brake tubes, disassemble the master cylinder from the booster.

   CAUTION: The master cylinder must be supported to prevent damage to the brake tubes.

2. Measure the push rod length while a force of approximately 22N (5 lb) is applied to push rod end. The correct push rod dimension is 28.3mm ± 0.3mm (1.11 inch ± 0.01 inch).
3. If the push rod dimension is correct, assemble master cylinder to booster. Alternate the tightening of the retaining nuts to 21-29 N·m (16-21 lb-ft).
4. If the push rod dimension is incorrect, replace the booster. The push rod length is not adjustable.

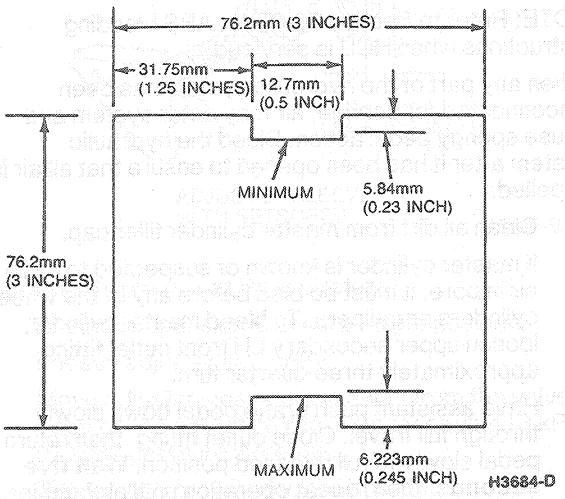
Non ABS Vehicles

The vacuum booster has an adjustable push rod (output rod) which is used to compensate for dimensional variations in an assembled booster. The push rod length is adjusted after each booster power unit has been assembled in production. **A properly adjusted push rod that remains within the booster after it was assembled in production should never require a service adjustment.**

A booster that is suspected of having an improper push rod length will indicate either of the following:

- A push rod which is too long will prevent master cylinder piston from completely releasing hydraulic pressure and cause brakes to drag.
- A push rod which is too short will increase brake pedal travel and cause a clunk or groaning noise from booster.

If necessary, a booster push rod length can be checked with a push rod gauge using the following procedure:



1. Without disconnecting brake tubes, disconnect master cylinder and set it away from booster power unit. Master cylinder must be supported to prevent damaging brake tubes.