
SECTION 4C

POWER BOOSTER

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DESCRIPTION AND OPERATION

POWER BOOSTER

This booster is a single diaphragm, vacuum-suspended unit. In a normal operating mode, with the service brakes in the release position, a vacuum-suspended booster operates with a vacuum on both sides of its diaphragm. When the brakes are applied, air at atmospheric pressure is admitted to one side of the diaphragm to pro-

vide the power assist. When the brakes are released, atmospheric air is shut off from that side of the diaphragm. The air is then drawn from the booster through the vacuum check valve by the vacuum source.

Important: If any hydraulic component is removed or disconnected, it may be necessary to bleed all or part of the brake system.

DIAGNOSTIC INFORMATION AND PROCEDURES

POWER BOOSTER FUNCTIONAL CHECK

1. With the engine stopped, eliminate the vacuum in the booster by pumping the brake pedal several times.
2. Push the pedal down and hold it in this position.
3. Start the engine.
4. The booster is OK if the pedal drops further because of extra force produced.

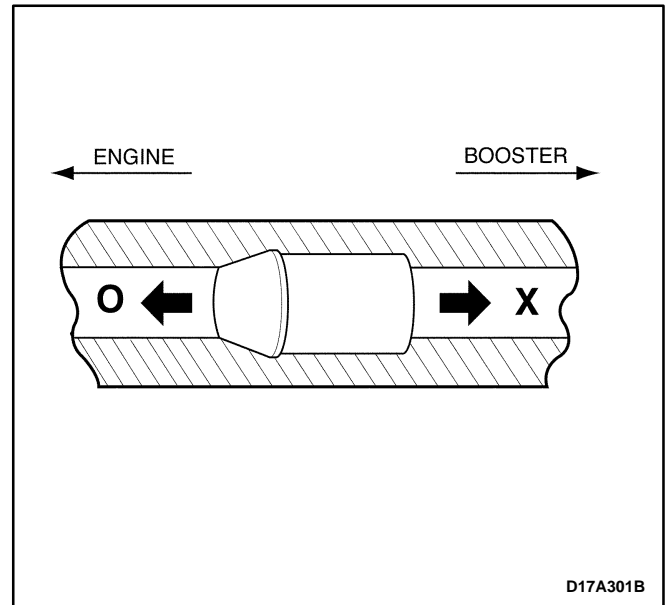
If the brake pedal does not drop, the vacuum system (vacuum hoses, check valve, etc.) is probably defective and should be checked.

If no defect is revealed by checking the vacuum system, the defect is in the booster itself.

CHECK VALVE FUNCTIONAL CHECK

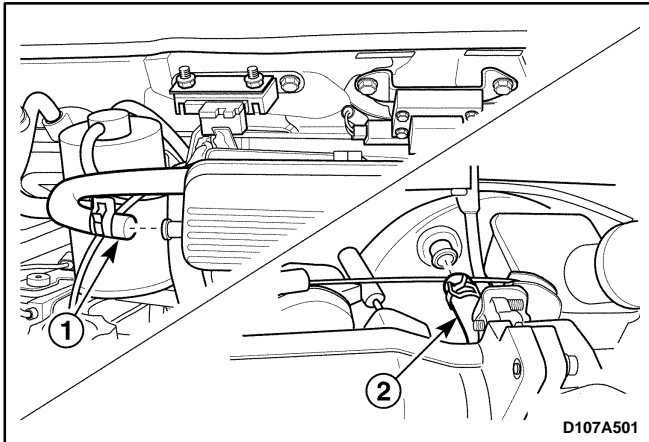
1. Remove the vacuum hose.
2. Suck the vacuum hose to power booster. And also, suck the vacuum hose to engine.
3. If the air pass through the check valve or not, replace the check valve. And if the vacuum hose to engine is

only sucked, the check valve OK.



REPAIR INSTRUCTIONS

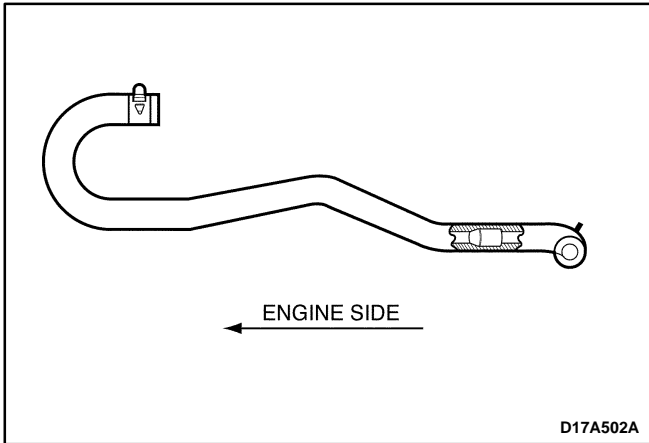
ON-VEHICLE SERVICE



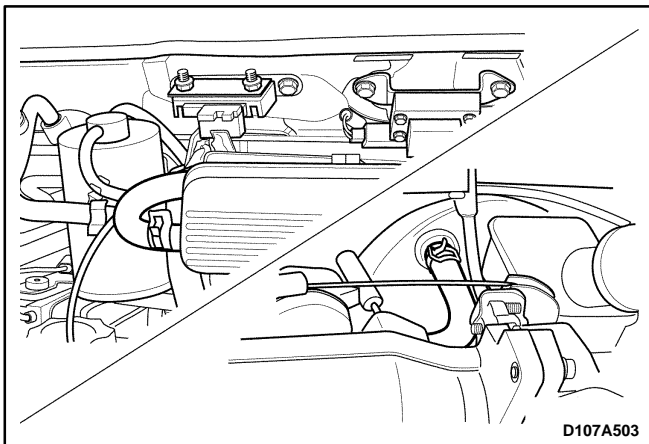
VACUUM HOSE AND CHECK VALVE

Removal Procedure

1. Remove the vacuum hose.
 - Disconnect the vacuum hose from the intake manifold (1).

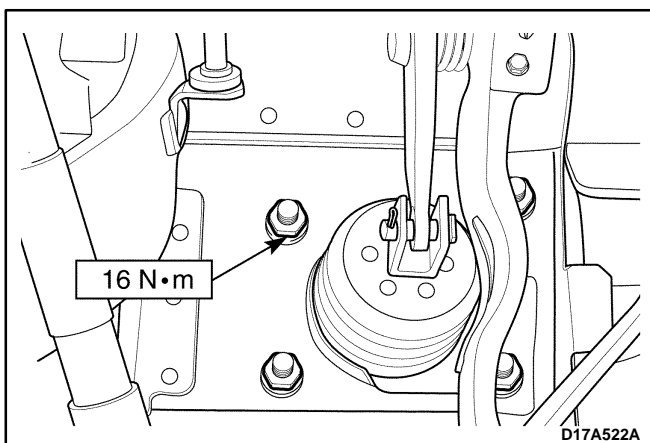
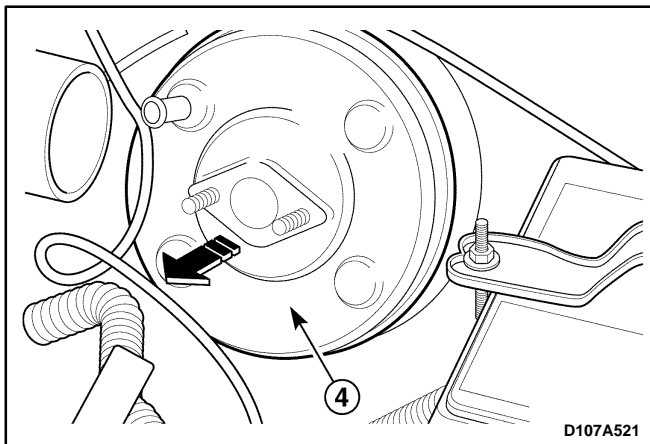
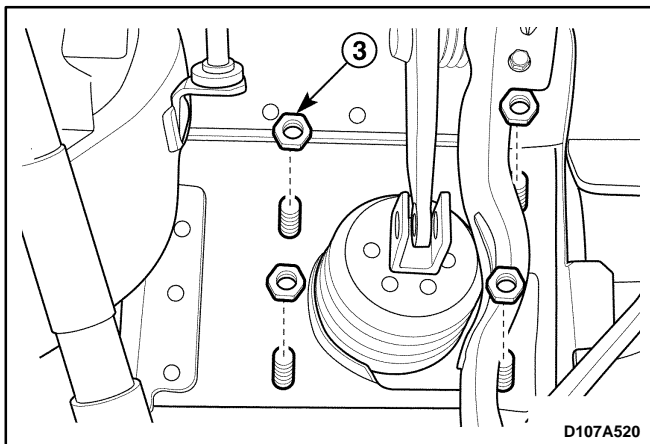
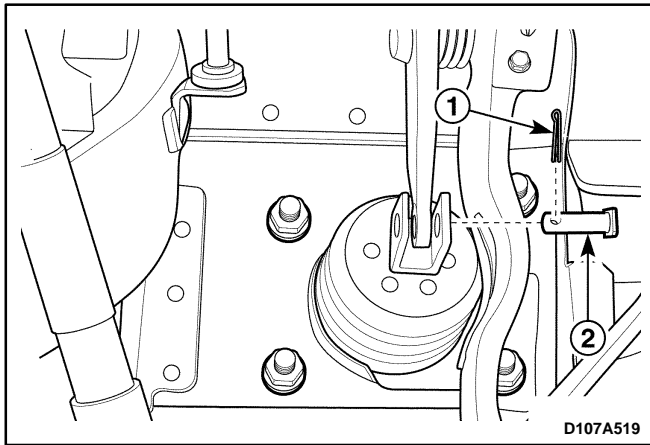


- Disconnect the vacuum hose from the power booster (2).



Installation Procedure

1. Connect the vacuum hose to the power booster.
2. Connect the vacuum hose to the intake manifold.



POWER BOOSTER ASSEMBLY (LEFT-HAND DRIVE)

Removal Procedure

1. Remove the master cylinder assembly. Refer to Section 4B, Master Cylinder.
2. Disconnect the vacuum hose from the power booster.
3. Remove the power booster.
 - Straighten the cotter pin and remove it (1).
 - Remove the clevis pin (2).

- Remove the nuts (3).

- Remove the power booster (4).

Installation Procedure

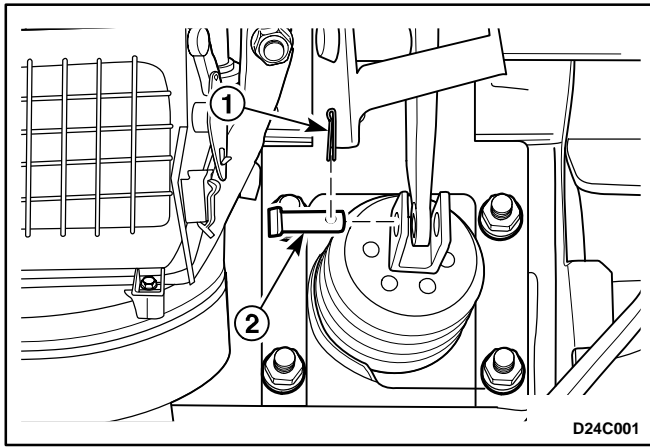
1. Install the power booster with the new cotter pin, clevis pin and nuts.

Tighten

Tighten the nuts to 16 N·m (12 lb-ft).

Important: Make sure the distance from the booster to the center of the clevis bore should be 100mm (3.94 in.).

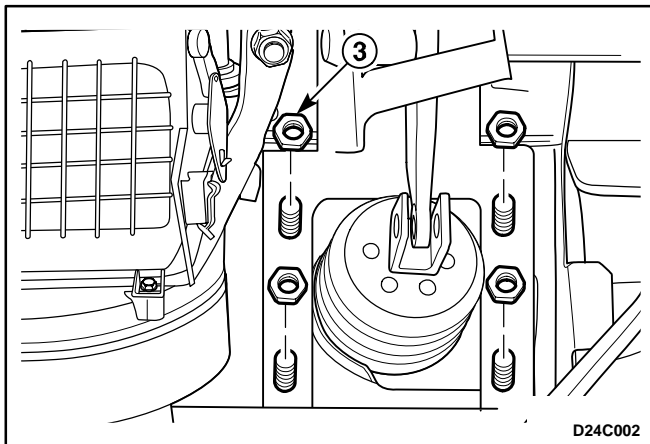
2. Install the master cylinder assembly. Refer to Section 4B, Master Cylinder.
3. Connect the vacuum hose to the power booster.
4. Bleed the brake system. Refer to Section 4A, Hydraulic Brakes.



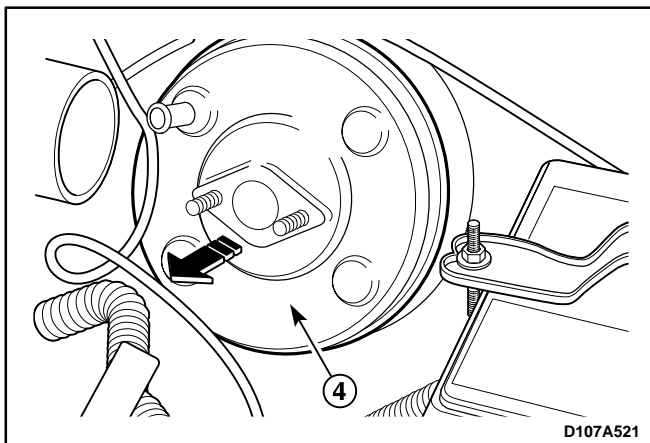
POWER BOOSTER ASSEMBLY (RIGHT-HAND DRIVE)

Removal Procedure

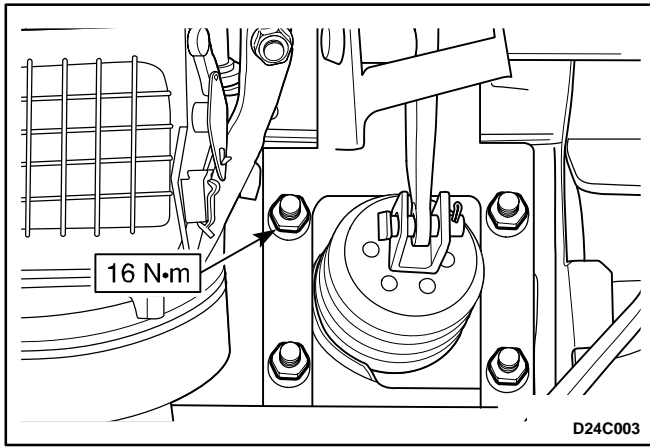
1. Remove the master cylinder assembly. Refer to *Section 4B, Master Cylinder*.
2. Disconnect the vacuum hose from the power booster.
3. Remove the instrument panel assembly. Refer to *Section 9E, Instrument/Driver Information*.
4. Remove the evaporator unit mounting screws and take off the evaporator unit a little. Refer to *Section 7B, Manual Control Heating, Ventilation, and Air Conditioning System*.
5. Remove the power booster.
 - Straighten the coter pin and remove it (1).
 - Remove the clevis pin (2).



- Remove the nuts (3).



- Remove the power booster (4).



Installation Procedure

1. Install the power booster with the new cotter pin, clevis pin and nuts.

Tighten

Tighten the nuts to 16 N·m (12 lb-ft).

Important: Make sure the distance from the booster to the center of the clevis bore should be 100mm (3.94 in.).

2. Install the evaporator unit with the screws. Refer to *Section 7B, Manual Control Heating, Ventilation, and Air Conditioning System*.
3. Install the instrument panel assembly. Refer to *Section 9E, Instrument/Driver Information*.
4. Connect the vacuum hose to the power booster.
5. Install the master cylinder assembly. Refer to *Section 4B, Master Cylinder*.

SPECIFICATIONS

GENERAL SPECIFICATIONS

Application		Unit	Description
Power Booster	Type	–	Vacuum–Suspended
	Diameter	mm (inch)	177.8 (7)
	Servo Force Ratio	–	3.7 : 1
	Distance from the booster to the center of the clevis bore	mm (inch)	96(3.78)

FASTENER TIGHTENING SPECIFICATIONS

Application	N•m	Lb-Ft	Lb-In
Booster–to-Dash Panel Nuts	16	12	–
Master Cylinder Attaching Nuts	16	12	–