Removal and Installation of Tandem Master Cylinder

Revision: Starting in the middle of 1974 brake line connections located at the left seen in driving direction. Starting fall 1975 with stepped tandem master cylinder.

Data

		Tandem master cylinde Push rod circuit	Stepped tand Push rod circ	lem master cuit	cylinder starting fall 1975 Floating circuit	
Cylinder dia.	inch	^{1 5} /1 6		15/16	;	3/4
	mm	23.81		23.8		19.05
Tightening Torque					Nm	(kpm)
Hex. nuts for attaching master cylinder to brake unit					15	(1.5)

Conventional Tool

Open double-box wrench 9 x 11 mm

Note

For loosening and tightening brake lines, use conventional open double-box wrench only.

Removing

1 Pump out brake fluid via an open bleed screw of front wheel and rear wheel brake circuit. Make sure that both chambers of compensating tank are drained. 2 Loosen plug connections (3) on contact inserts of warning device, while lifting holding lugs by means of a small screw driver (Fig. 1).

e.g., made by Hazet Order No.612

3 Disconnect both brake lines (9 and 10) toward front wheel brake and brake line (11) toward rear wheel brake on tandem master cylinder (Fig. 2).

Immediately close all brake lines with rubber caps and connections on tandem master cylinder with blind plugs.



Fig. 1

- Tandem master cylinder
- 2 Compensating tank 3
- Plug connection Closing cover
- 5 End cover
- 6 Brake unit
- 7 Connecting hose
- 8 Vacuum line
- Brake line to righthand 9
 - front wheel brake



Fig. 2

- 1 Tandem master cylinder
- Compensating tank 2
- 4 Closing cover
- 5 End cover 6 Brake unit
- 8 Vacuum line
- 9 Brake line to righthand front wheel brake
- 10 Brake line to lefthand
- front wheel brake
- 11 Brake line to rear wheel brake



4 Loosen tandem master cylinder on brake unit (10) and remove, while watching O-ring (11), located in groove in flange of tandem master cylinder (Fig. 4).

Installing

Attention! Always renew O-ring between master cylinder and brake unit since the connection must be **absolutely vacuum-tight.**

5 Insert O-ring (11) into groove of tandem master cylinder and attach master cylinder to brake unit (10) (Fig. 4). Tighten hex. nut to 15 Nm (1.5 kpm).

Note: On vehicles starting in the middle of 1974, the connections for the brake lines on tandem master cylinder are at the left (Fig. 3).

On stepped tandem master cylinder (installed starting fall 1975) the brake circuits are interchanged. The front wheel brake is connected to push rod circuit (piston dia. 23.81 mm) and the rear wheel brake to floating circuit (piston dia. 19.05 mm).

- Fig. 3
 - 3 Plug connection
 - 4 Closing cover 5 End cover
 - 6 Brake unit
 - 8 Vacuum line
- 9 Brake line toward righthand front wheel brake

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- 10 Brake line toward lefthand front
- wheel brake 11 Brake line toward rear wheel brake

6 Connect brake lines to tandem master cylinder.

7 Fill compensating tank with brake fluid, making sure that the individual chambers are all filled.

8 Connect plug connection to contact inserts of warning device.

9 Bleed brakes and check for leaks (42.0–010 and 42.0–015).







12 Tandem master cylinder