VOLVO
100 000

Fig. 54-5. Air cleaner

AIR CLEANER

The air supplied to the servo units first passes through the air cleaner, see Fig. 54-5.

Service Procedures**SERVO UNITS****Replacement**

Plug temporarily the brake fluid reservoir vent hole with plastic cement. Clean the hydraulic and vacuum connections on the inside. Disconnect all connections from the servo unit. Plug the brake lines. Remove the retaining nuts. Lift forwards the servo unit, compare Fig. 54-7.

Install the new unit in position. Fit washers and retaining nuts. Connect up the lines. Remove the seal and make sure that the connection for the air hose is properly fitted on the servo unit. Bleed the brake system.

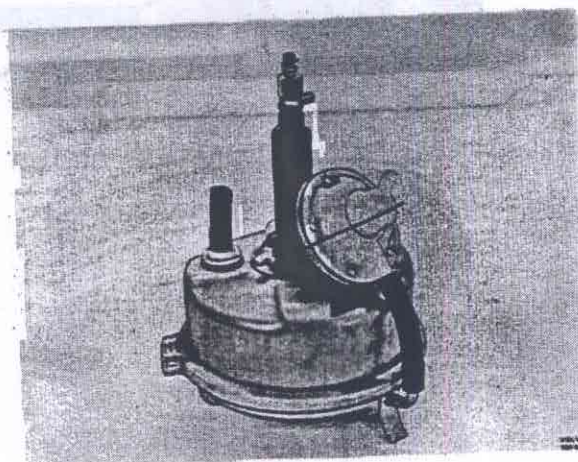


Fig. 54-7. Servo unit removed

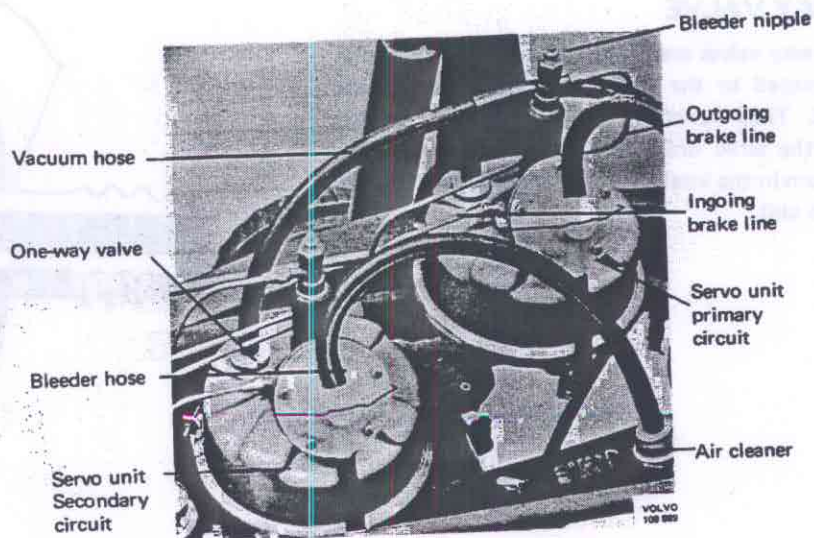


Fig. 54-6. Auxiliary brake components

ONE-WAY VALVE

Replacement (unit removed)

Lever the vacuum hose off the one-way valve. Lever out the one-way valve with the help of two screwdrivers. Remove the seal.

Fit a new seal and check that its flange is fitted properly in position on the servo unit, see Fig. 54-4. Coat the inside of the seal with brake paste and carefully press it into the one-way valve. Make sure that the seal remains properly in the correct position.

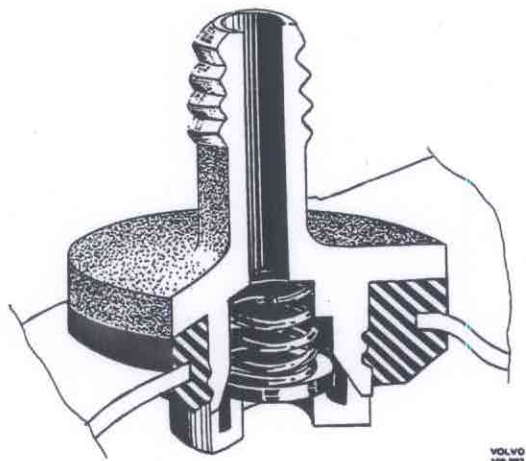


Fig. 54-8. One-way valve

AIR CLEANER

The air cleaner is accessible under the engine cover, see Fig. 54-8. With replacement, remove the rubber hose and the retaining nut, after which the air cleaner can be removed.

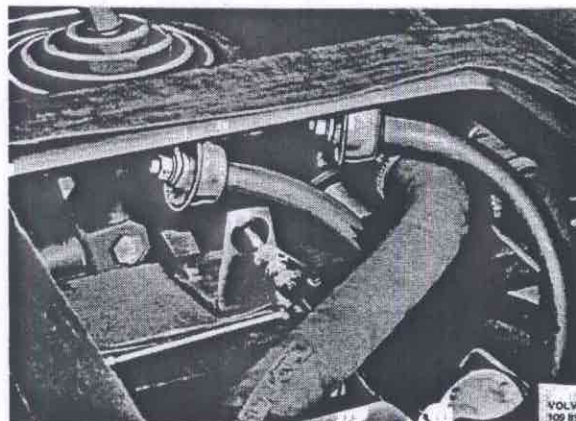


Fig. 54-9. Air cleaner

AIR CLEANER

The air cleaner is located under the engine cover. The air filter is a disposable type. To replace the filter, see Fig. 10-1000. To remove the filter, see Fig. 10-1000. To install the filter, see Fig. 10-1000. To check the air cleaner, see Fig. 10-1000.



Fig. 10-1000

ONE-WAY VALVE

(Fig. 10-1000, front view)

The one-way valve is located in the air line. It allows air to flow in one direction only. To check the valve, see Fig. 10-1000. To replace the valve, see Fig. 10-1000.

The one-way valve is located in the air line. It allows air to flow in one direction only. To check the valve, see Fig. 10-1000. To replace the valve, see Fig. 10-1000.



Fig. 10-1000

GROUP 55 PARKING BRAKE

Description

The parking brake design can be seen from Figs. 55-1 and 55-2.

The parking brake lever is located on the right-hand side of the driver's seat. Applying the parking brake lever actuates the cable so that it applies the propeller

shaft brake located on the gearbox. There the levers press out the brake shoes against the brake drum. The brake linings are bonded.

The parking brake is adjusted with the adjuster mechanism in the propeller-shaft brake.

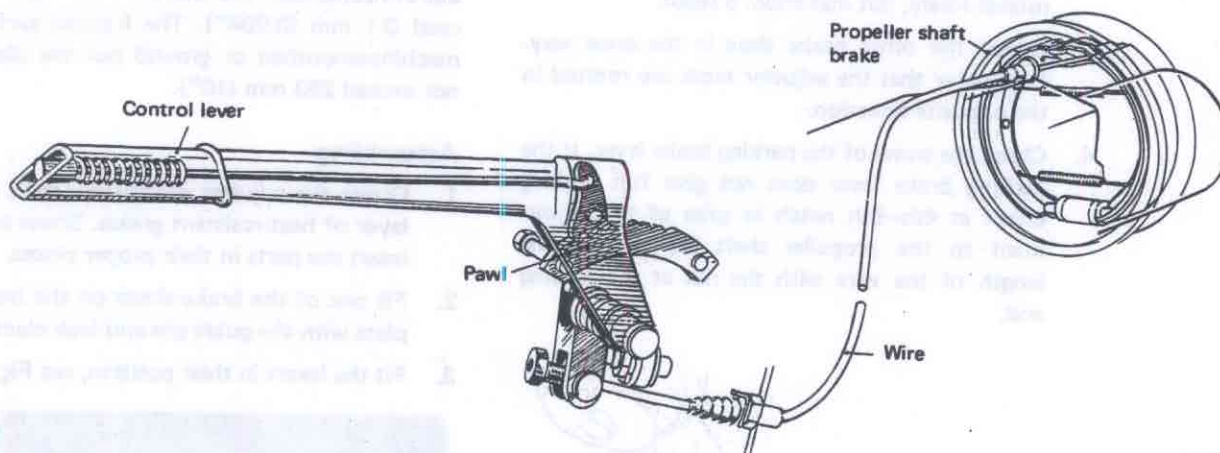


Fig. 55-1. Parking brake

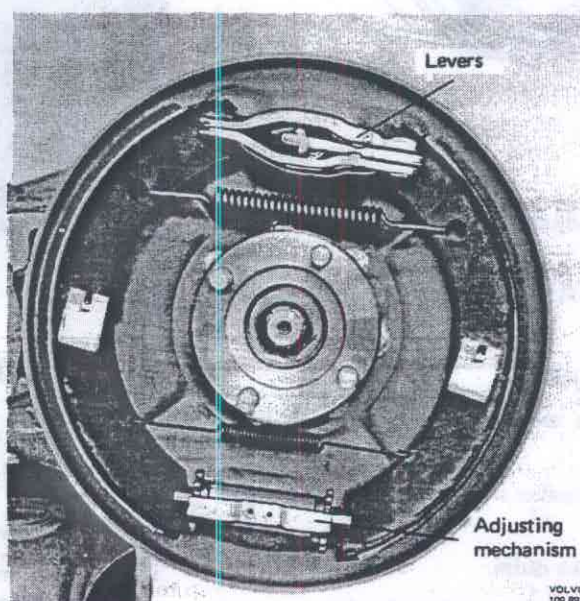


Fig. 55-2. Propeller shaft brake

Service Procedures

GENERAL

Adjusting the parking brake

The parking brake lever should give full parking brake effect at the 4th–5th notch. If it does not do this, adjust the parking brake lever as follows:

1. Jack up the rear end. Check that the parking brake lever is in its forward position and the gears and in neutral.
2. Adjust out one of the brake shoes with a suitable adjuster tool (curved screwdriver), see Fig. 55–3, until the brake drum can be just about rotated. Then slacken the adjuster screw until the drum rotates freely, but maximum 5 teeth.
3. Adjust the other brake shoe in the same way. Remember that the adjuster teeth are rotated in the opposite direction.
4. Check the travel of the parking brake lever. If the parking brake lever does not give full braking effect at 4th–5th notch in spite of the adjustment to the propeller shaft brake, alter the length of the wire with the nut at the leading end.

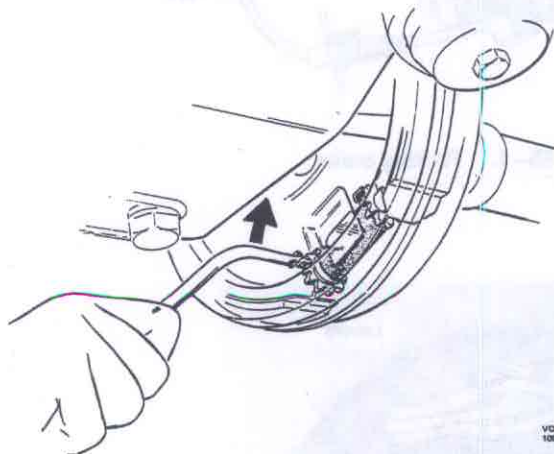


Fig. 55–3. Adjusting the parking brake

PROPELLER SHAFT BRAKE

Dismantling

1. Jack up the vehicle.
2. Disconnect the exhaust pipe on the left-hand side.
3. Remove the propeller shaft flange from the brake drum.
4. Pull off the brake drum.
5. Remove the lock clamps and guide pins.
6. Remove the brake shoes.
7. Remove the levers and adjuster screws.

Checking and replacing parts

Clean the parts before checking.

If the brake linings are oily, damaged or worn so that there is not more than 1.5 mm (1/16") left of the lining thickness, replace the shoes complete.

Check that the adjuster mechanism nut screws easily into the housing. If the housing or pawls are damaged, replace the brake backing plate. The flange is thereby removed when doing this, so see under the heading "Dismantling the distribution gearbox", Group 43.

Check the friction surface of the brake drum and its out-of-roundness. The out-of-roundness may not exceed 0.1 mm (0.004"). The friction surface can be machine-smoothed or ground but the diameter may not exceed 253 mm (10").

Assembling

1. Grease the adjuster mechanism parts with a light layer of heat-resistant grease. Screw together and insert the parts in their proper places.
2. Fit one of the brake shoes on the brake backing plate with the guide pin and lock clamp.
3. Fit the levers in their position, see Fig. 55–4.

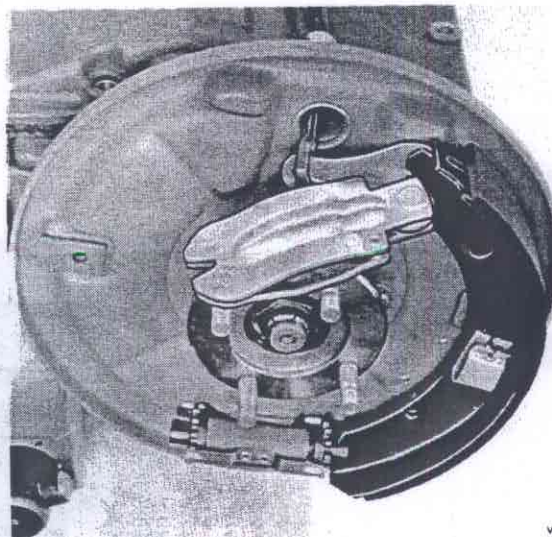


Fig. 55–4. Levers

4. Hook on the upper, stronger return spring on the brake shoes. Tension out the shoes in their location. Fit the guide pin and lock clamp.
5. Fit the lower return spring.
6. Fit the brake drum and propeller shaft. Tighten up the nuts.
7. Adjust the propeller shaft brake.
8. Fit the exhaust pipe.

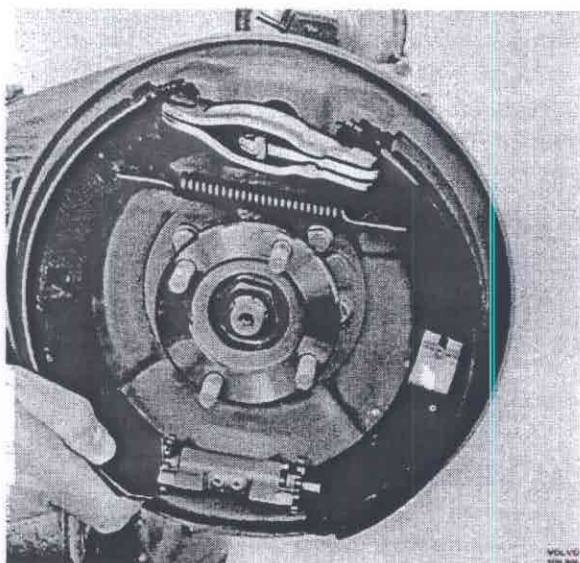


Fig. 55-5. Fitting the brake shoes

CONTROL MECHANISM

Replacing parking brake lever or ratchet components

1. Remove the clamp bolt and lever from the parking brake lever shaft.
2. Remove nuts and washers from the pawl segment attachment.
3. Pull forward the parking brake lever complete.
4. Remove the button and take the spring out of the parking brake lever. Drill out the rivet and remove the push rod and pawl.
5. Replace both bushings in the parking brake lever journalling. Coat them with a light layer of universal grease.
6. Fit the new parts in reverse order to removal, see Fig. 00. Make sure that the rivet is properly fitted without preventing the movement of the pawl.

7. When installing the parking brake lever, check the warning function of the contact. The lever should be placed so that the lamp lights at the 2nd-3rd notch.
8. Check the function and if necessary adjust the parking brake.

WIRE

Replacement

1. Jack up the vehicle.
2. Remove the adjuster nut from the front end of the wire.
3. Remove the lock washer at the wire front attachment.
4. Remove the rear propeller shaft section.
5. Disconnect the exhaust pipe on the left-hand side.
6. Remove the brake drum.
7. Unhook the wire from the lever on the propeller shaft brake.
8. Hook on the new wire on the lever on the propeller shaft brake.
9. Fit the brake drum and the propeller shaft. Tighten up the nuts.
10. Adjust the propeller shaft brake.
11. Fit the exhaust pipe.
12. Tighten the adjuster nut until full braking effect is obtained at the 4th-5th notch with properly adjusted propeller shaft brake.

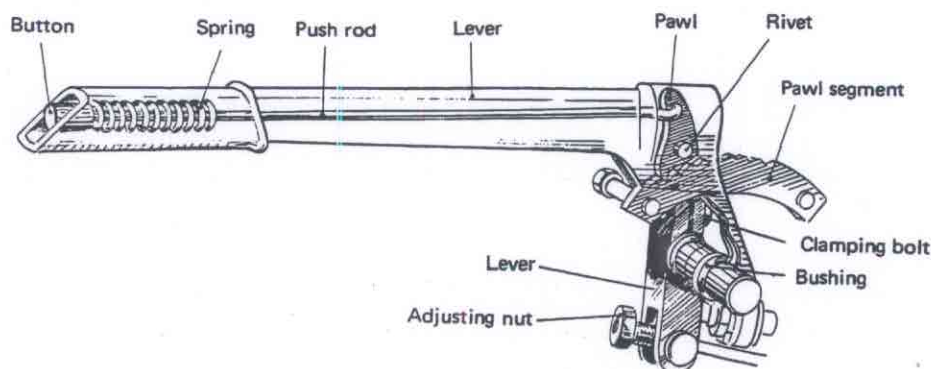


Fig. 55-6. Parking brake lever assembly



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