

FRONT BRAKES (Vacuum/hydraulic models)

The two leading shoe type of brake is fitted with self-a-adjusting wheel cylinders which have provision for manual de-adjusting.

The efficient two leading shoe principle is achieved by using a separate cylinder for each shoe and operating on the leading end of the shoe web.

Rotation of the drum assists application of the brake and this results in comparatively low input pressures being required.

TO FIT NEW SHOES

Always fit new shoes in axle sets—not singly—and fit new return springs also.

Apply the parking brake and remove the brake drums from both sides of the axle in the manner described in Sub-section M100. The steady posts are left untouched and the adjusters fully backed off during this operation. Retain piston of front cylinders in position by means of wire or an elastic band.

Note: On RB35 models it is necessary to remove the hub to gain access for shoe removal.

Ensure that adjuster is fully retracted. Do not overstretch springs during their removal.

Using a Girling Shoe Horn or similar lever, lever one of the shoe webs out of the angled abutment groove in the wheel cylinder body. Allow the shoe to collapse under its spring pressure over the top of the cylinder.

With the spring pressure now released remove both shoes and springs.

Clean down the backplate with a suitable cleaning fluid and remove any corrosion with a wire brush, taking care not to damage the cylinder dust cover.

Note: When cleaning brake parts do not use petrol, paraffin or other mineral based fluids.

Whilst shoes are removed examine the wheel cylinder as described in this section. If they appear satisfactory fit the new shoes and springs as follows.

Lightly smear both ends of the shoes with Girling Brake Grease and attach the springs to the shoes—leaving one end of one spring detached.

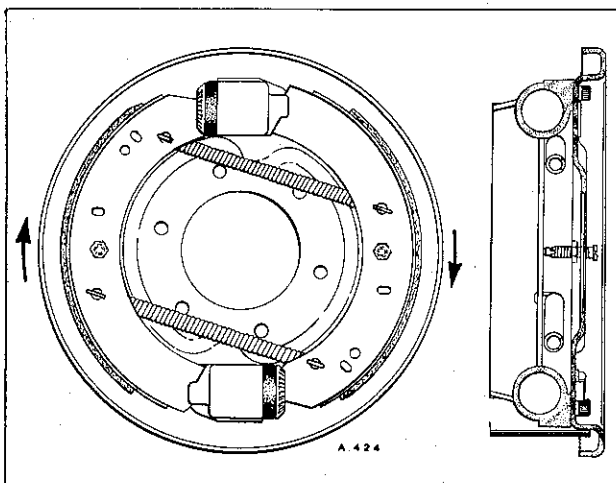


Fig. 1 Front Brake—11 inch unit

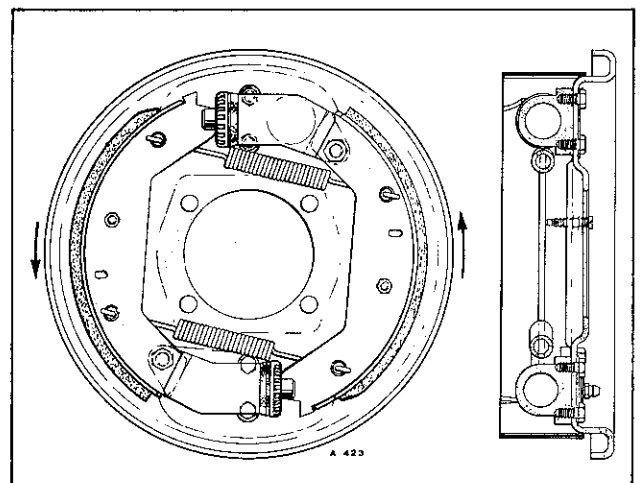
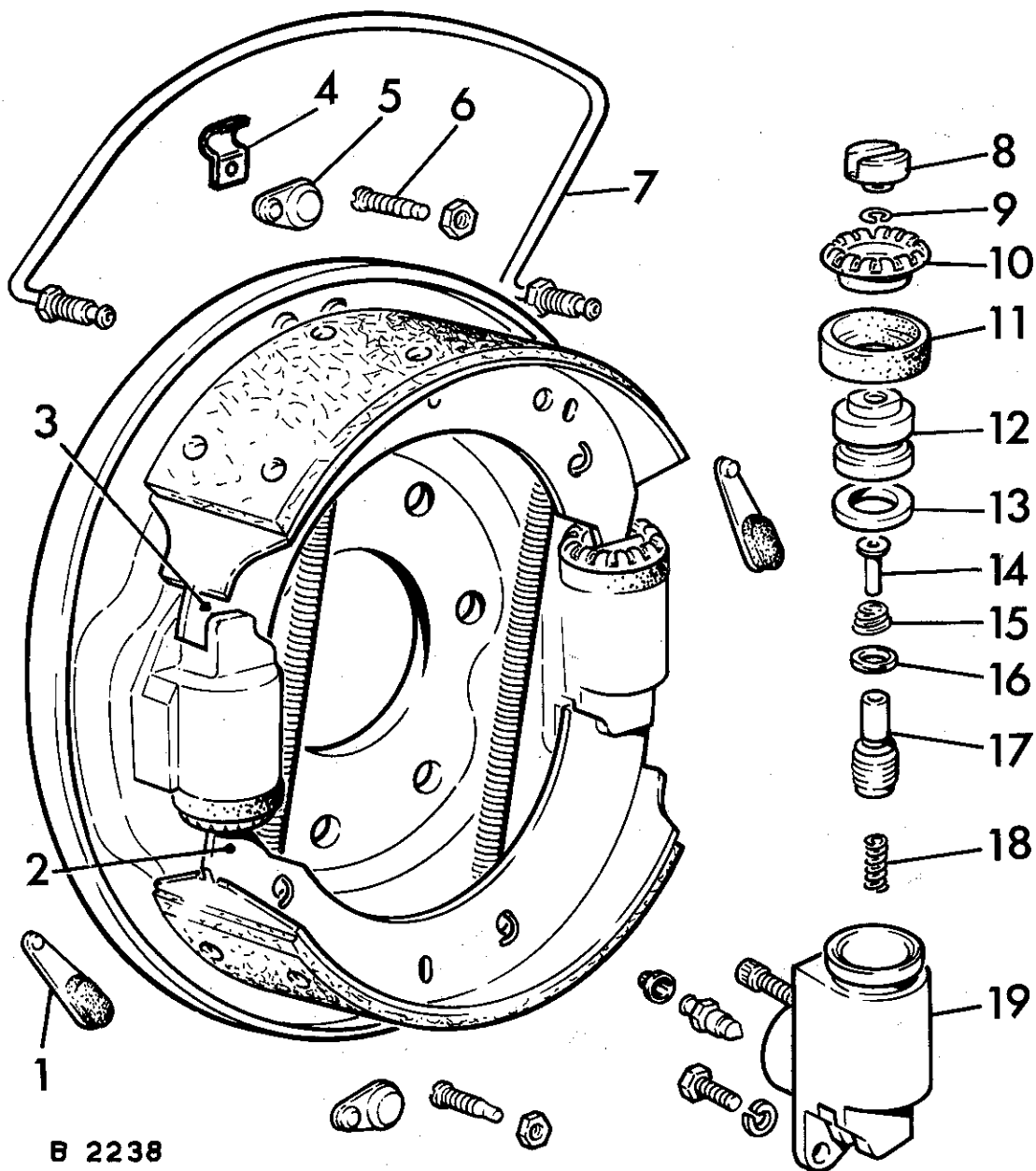


Fig. 2 Front Brake—13 inch unit

BRAKES

Front Brakes (Vac/hyd.)



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- | | |
|-----------------------|--------------------|
| 1. ADJUSTER GROMMET | 11. DUST COVER |
| 2. TAPPET END | 12. PISTON |
| 3. ABUTMENT END | 13. SEAL |
| 4. PIPE CLIP | 14. BLEED TUBE |
| 5. INSPECTION GROMMET | 15. DRIVE SPRING |
| 6. STEADY POST | 16. DRIVE RING |
| 7. BRIDGE PIPE | 17. ADJUSTER SHAFT |
| 8. TAPPET HEAD | 18. LOAD SPRING |
| 9. SNAP RING | 19. CYLINDER BODY |
| 10. ADJUSTER RING | |

Fig. 3 Brake Details—11 inch unit

Front Brakes (Vac/hyd.)

Offer up the assembly to the backplate ensuring that the abutment ends are in their correct positions (see Fig. 3). Locate the return spring free-end and fit one shoe first in the tappet head of the wheel cylinder and the other end in the abutment groove.

Using the shoe horn locate the other shoe, first in the piston tappet and then into the abutment groove.

Note: It is important that shoes are fitted in this order to avoid damage to the wheel cylinder dust cover.

Clean and refit the drum. Using two wheel nuts, nip the drum to the hub to maintain an alignment.

To adjust

Manually adjust shoe to drum clearance to approximately 1.8mm (0.070 in) in order to allow for possible tilt of the newly fitted shoes.

Slacken off the steady posts by two complete turns.

Gently apply the foot brake until the shoes just lock into the drum—this action takes up any original tilt of the shoes and also ensures the clearance is not too close for final adjustment.

With brake pressure held, screw in the steady posts until just touching the shoe webs. Tighten the locknut ensuring the steady post does not move. Release the brake pressure and manually set the shoe clearance to 0.65mm (0.025 in) using a feeler gauge through the inspection window.

Press the brake pedal several times to automatically adjust the shoes and confirm visually through the holes in the backplates that shoe to drum clearances are about equal at each shoe. Refit grommets.

Refit the wheels, lower the vehicle and tighten the wheel nuts to the correct torque.

Check operation of brakes.

WHEEL CYLINDERS**Inspection for Leaks**

To inspect the wheel cylinders for leaks proceed as follows:

Remove the tappet head (1), retaining clip or D ring (2) and adjuster wheel (3).

Carefully lift the dust cover (4) and if fluid is evident seals should be renewed or new cylinders should be fitted.

Note: It is recommended that cylinders are renewed in pairs.

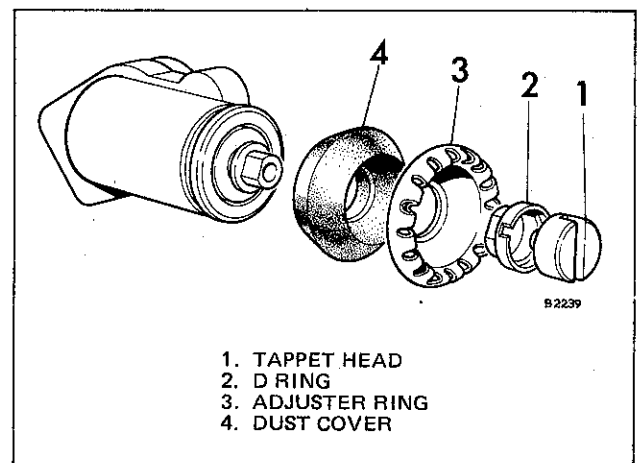


Fig. 4 Wheel Cylinder—13 inch unit

To Remove

The use of a hose clamp during this operation will ensure that fluid loss is minimal and bleeding will only be necessary at the affected parts.

Note: The use of other tools for clamping a hose is not recommended since internal damage may be caused. If a hose clamp is not available the system should be drained completely.

Having clamped the hose remove the brake shoes as described previously.

Disconnect the bridge pipe between the cylinders and the supply pipe from the rear cylinder.

From the rear of the backplate release the tab washers, remove the cylinder securing bolts (or socket screws) and withdraw the cylinders.

To Dismantle

It is recommended that only one cylinder is dealt with at a time to avoid mixing internal parts.

Before proceeding ensure that the cylinders, work area, tools and hands are clean.

Referring to Fig. 4, remove tappet head (1), "D" ring (2), adjuster wheel (3) and dust cover (4).

Referring to Fig. 3 carefully remove the piston assembly (12) from its housing.

Unscrew the abutment strut assembly (items 15-18) from the piston.

Note: Do not dismantle the abutment strut.

Remove the seal (13) from the piston and wash all parts in clean brake fluid.

Examine the piston bore and the piston for signs of corrosion or score marks. If surfaces are clean and free from ridges new seals may be fitted. *If in doubt fit new cylinder assembly.*

To Re-assemble

Fit the new seal to the piston taking care not to cause damage to the seal lip.

Screw the abutment strut fully into the piston and then unscrew by one complete turn.

Note: Freedom of movement is essential to ensure that the initial self adjusting will occur.

Fit a new load spring (18) to the adjuster shaft assembly. Lubricate the piston with clean brake fluid and refit the assembly into the cylinder bore.

Refit dust cover, adjuster wheel, retaining clip (or D ring) and tappet head.

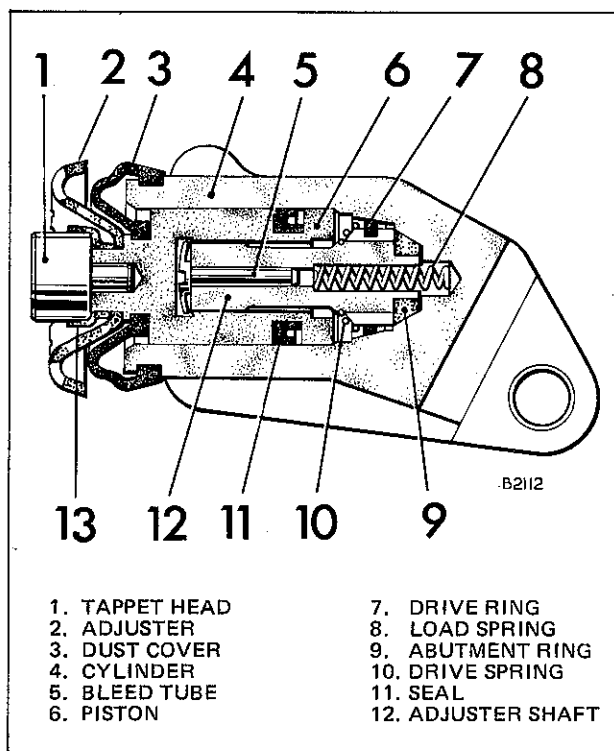


Fig. 5 Wheel Cylinder section
(13 inch unit)

To Refit

Refit the cylinder to the backplate and tighten to the correct torque. Lock by means of tab washer.

Reconnect the bridge pipe and feed pipe ensuring that all connections are secure and clips (where applicable) are fitted. Remove hose clamp and bleed at each wheel as described in sub-section M200.

Note: If hose clamps have been used, fully de-adjust the cylinders (which have received attention) prior to bleeding. If clamps were not used, fully de-adjust ALL cylinders on the vehicle to reduce fluid volume and minimise the possibility of air traps.

Front Brakes (Vac/hyd.)

Refit brake shoes and drums; adjust brake shoes as previously described.

Ensure that all backplate grommets are refitted.

Refit the road wheels, lower the vehicle and tighten the nuts to the correct torque.

Check operation of brakes.

Remove the hub assembly as described in the appropriate axle Sub-section.

Remove the brake shoes as previously described if these or the wheel cylinders are to be replaced or overhauled.

Fit a Girling hose clamp and disconnect the feed pipe at the wheel cylinder.

Remove the backplate securing screws and remove the backplate assembly.

Remove the wheel cylinder if required for overhaul.

To refit

Clean and refit the backplate using new gaskets as found. Tighten the securing screws to the correct torque.

Refit the wheel cylinders and brake shoes (if removed) as previously described in this section.

Refit the hub assembly and drum as described in Sub-section M 100.

Reconnect the brake feed pipe to the cylinder and the bridge pipe if previously disconnected. Ensure this is clipped correctly to the backplate.

Remove the hose clamp and bleed the system.

Adjust brake shoes as previously described and refit grommets.

Refit the road wheels, lower the vehicle and tighten the wheel nuts to the correct torque.

Check operation of brakes.

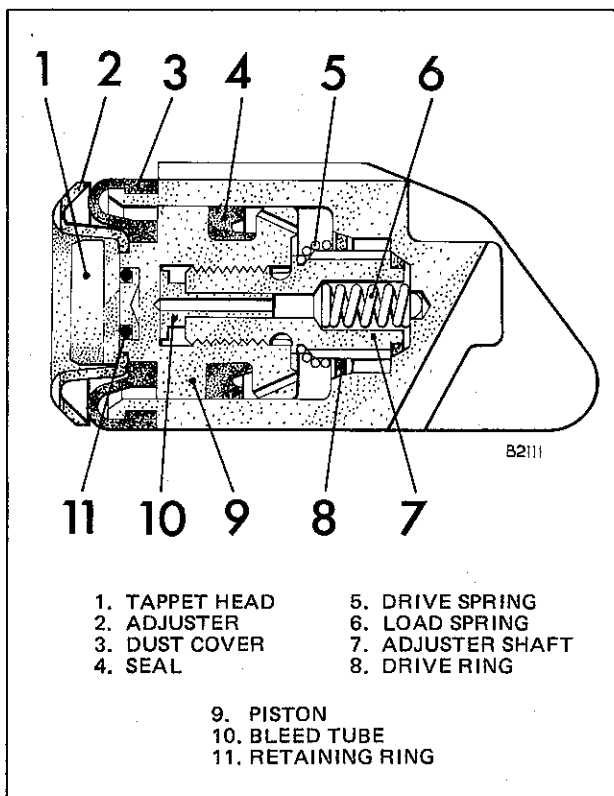


Fig. 6 Wheel Cylinder section
(11 inch unit)

BACK PLATE

To Remove

Remove the wheel and drum as explained in Sub-section M100.

DESCRIPTION AND MODIFICATIONS

This may seem a little out of place but I have heard about problems with people stealing work and selling it - for example on eBay.

If you're reading this and you bought this manual anywhere then you have been ripped off.

Please contact me via my email mikejamson@hotmail.com Otherwise I can be found on the dodge50 facebook page, if not then get in contact with Greg and he can pass the message on to me.

I have not done this pdf manual for my own personal gain and wish to see the community of 50 series owners benefit from the information here, and I do not want to see the community get taken advantage of and somebody else gain from it unfairly.

The information in pdf format will hopefully allow more of these wonderful trucks to stay on the road by providing information to everybody.

This has been quite a long and involved process to scan the manual and to convert it into a pdf format. I do apologise as I have used several different scanners and several different computers to do it, so there are no doubt some errors hidden throughout, as well as some editing errors.

I have aimed to balance quality and file size and hope that this balance meets to everybody's approval.

If you see an error please let me know and I will fix it as soon as I can.