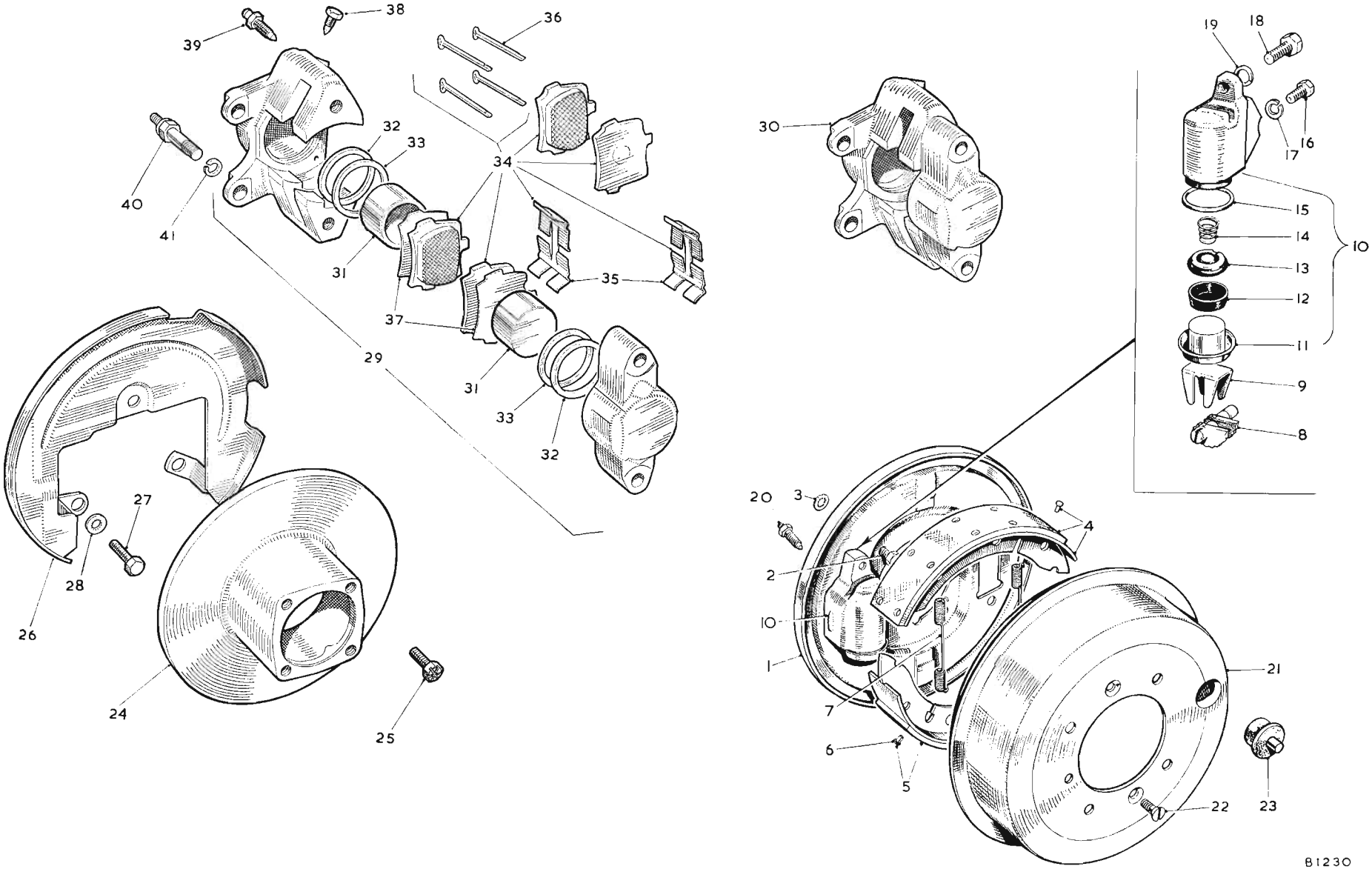
SECTION M

THE BRAKING SYSTEM

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THE FRONT BRAKE COMPONENTS



KEY TO THE FRONT BRAKE COMPONENTS

No.	*Description*
1.	Brake-plate.
2.	Set screw.
3.	Shakeproof washer.
4.	Brake-shoe assembly.
5.	Liner with rivets.
6.	Rivet.
7.	Pull-off spring.
8.	Micram adjuster.
9.	Mask.
10.	Wheel cylinder assembly.
11.	Piston with dust cover.
12.	Cup.
13.	Cup filler.
14.	Spring.
15.	Sealing ring.
16.	Set screw (small).
17.	Spring washer.
18.	Set screw (large).
19.	Spring washer.
20.	Bleeder screw.
21.	Brake-drum.
22.	Set screw.
23.	Plug.
24.	Brake disc.
25.	Set screw.
26.	Dust cover.
27.	Set screw.
28.	Shakeproof washer.
29.	Calliper unit assembly—L.H.
30.	Calliper—L.H.
31.	Piston.
32.	Inner seal.
33.	Dust seal and retainer.
34.	Pad assembly.
35.	Pad retaining spring.
36.	Split cotter pin.
37.	Pad shim.
38.	Plug.
39.	Bleed screw.
40.	Calliper mounting bolt.
41.	Spring washer.

GENERAL DESCRIPTION
(Early Cars)

The brakes on all four wheels are hydraulically operated by pedal directly coupled to a master cylinder in which the hydraulic pressure of the brake operating fluid is generated. A supply tank cast integrally with the master cylinder replenishes the fluid, and a pipe line consisting of tubes and flexible hoses interconnects the master cylinder and wheel cylinders.

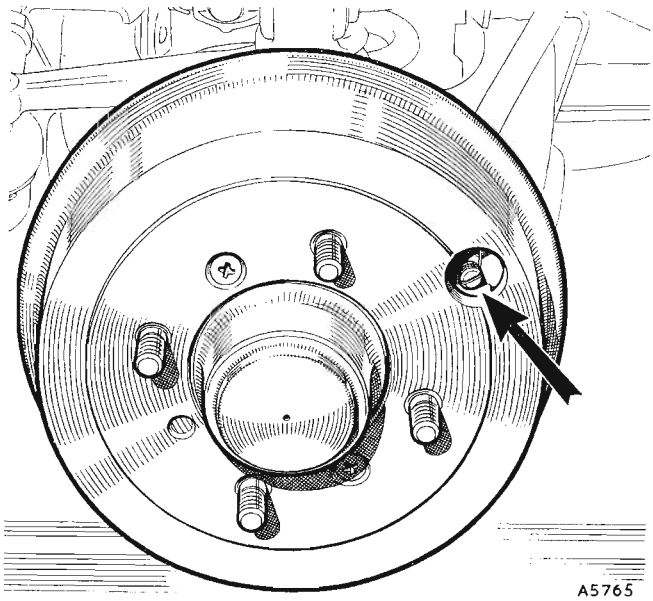


Fig. M.1
Showing a front brake-drum with one of the brake-shoe adjusters

The pressure generated in the master cylinder by application with the foot pedal is transmitted with equal and undiminished force to all wheel cylinders simultaneously. This moves the pistons outwards, which in turn expand the brake-shoes, thus producing automatic equalization and efficiency in direct proportion to the effort applied at the pedal.

When the pedal is released the brake-shoe springs return the shoes, which then return the wheel cylinder pistons, and therefore the fluid, to the pipe lines and master cylinder.

An independent mechanical linkage, actuated by a hand brake mounted alongside the propeller shaft tunnel, operates the rear brakes by mechanical expanders attached to the rear wheel cylinder bodies.

The front brakes are of the two-leading-shoe type with sliding shoes, which ensure automatic centralization of the brake-shoe in operation.

The rear brakes are also fitted with sliding shoes.

GENERAL DESCRIPTION
(Later Cars)

The front brakes are of the rotating disc and rigidly mounted calliper type, each calliper containing two friction pad assemblies between which the disc rotates. The friction pads are applied to the disc by means of two pistons operated by hydraulic pressure, and are automatically retracted when the hydraulic pressure is released. Wear on the friction pads is taken up automatically and no adjustment is necessary.

When the friction pads require renewal they are readily detachable without removing the calliper from its mounting.

Fluid pressure generated in the master cylinder by the application of the brake pedal enters the mounting half of the calliper and passes through internal fluid passages to the rim half, thus exerting equal pressure on both operating pistons simultaneously and bringing the friction pads into contact with the disc faces.

The pistons are sealed by means of a rubber seal fitted to the mouth of the bore of each half of the calliper to prevent moisture and dirt from entering, and are also sealed by a rubber seal fitted in a groove in each calliper bore to prevent fluid leakage.

The fluid seals grip the outer diameter of the pistons tightly.

When the brakes are applied outward movement of the piston and fluid pressure tend to force the seal out of its groove. As the pressure is released the seal returns to its original position, and in doing so moves the piston backwards slightly to provide a running clearance between the friction pads and the disc. As the pads wear the piston will move farther outwards to compensate for the wear, thus eliminating the need for manual adjustment.

The rear brakes are of the internal-expanding type with one leading and one trailing shoe in each assembly. Pressure on the pedal expands the shoes in the drums hydraulically, and when the pressure is released return springs retract them onto their stops on the expander units.

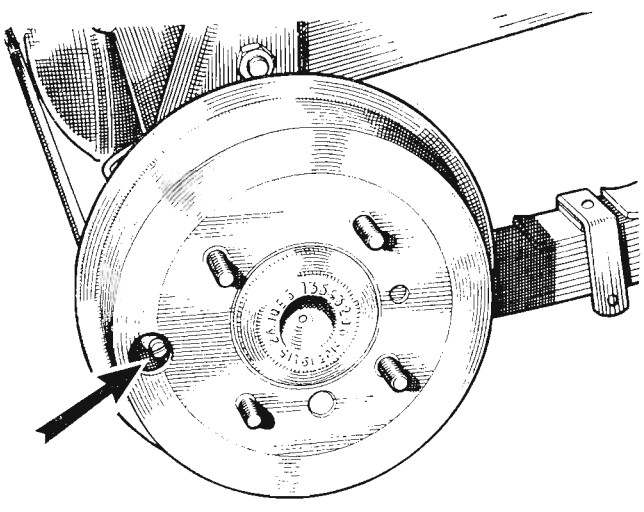


Fig. M.2
Showing rear brake-shoe adjuster

Section M.1

MAINTENANCE
(Early Cars)

Periodically examine the quantity of brake fluid in the master cylinder. The level should be kept ¼ in. (6·5 mm.) below the bottom of the filler neck, but not higher. The necessity for frequent topping up is an indication of overfilling or a leak in the system which should at once be traced and rectified.

IMPORTANT.—Serious consequences may result from the use of incorrect fluids, and LOCKHEED SUPER HEAVY DUTY BRAKE FLUID or a fluid conforming to Specification S.A.E. 70.R3 must be used. This fluid has been specially prepared and is unaffected by high temperature or freezing.

Adjust the brake-shoes to compensate for wear; the need for this is shown by excessive pedal travel before solid resistance is felt. For brake adjustments see Sections M.2 and M.3.

Lubrication

There is one lubricating nipple on the top of the hand brake compensating lever, and this is accessible from underneath the rear of the car. Wipe away all the dirt from the nipple and give one or two strokes at regular intervals with a gun filled with lubricant.

The hand brake cable nipple located just forward of the rear axle must receive three or four strokes at regular intervals with a gun filled with lubricant.

Section M.2

BRAKE-SHOE ADJUSTMENTS

The brakes are adjusted for lining wear **only** at the shoes themselves, and on no account should any alteration be made to the hand brake cable for this purpose.

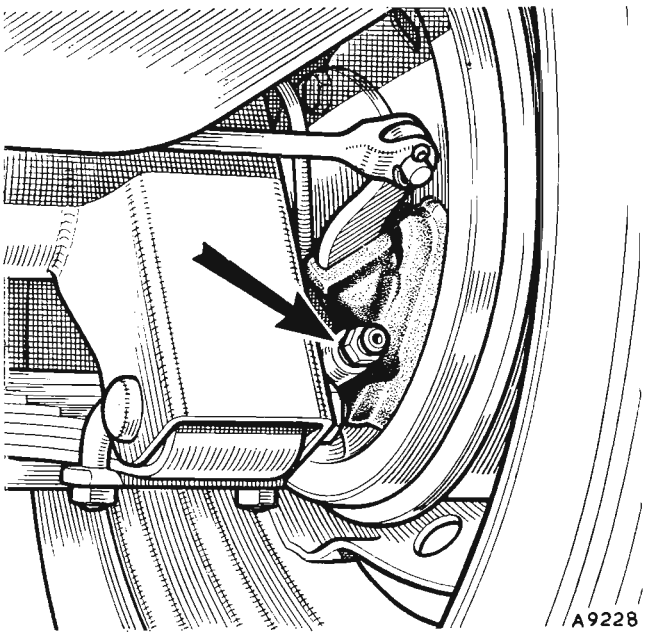


Fig. M.3

Illustrating a rear brake bleed nipple

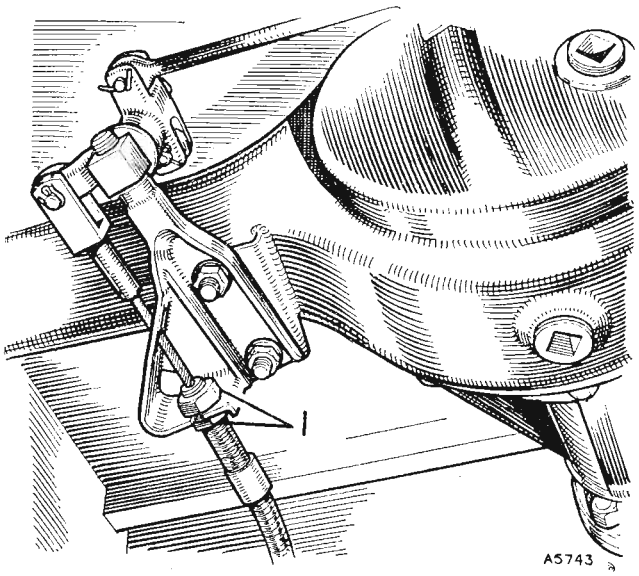


Fig. M.4

Shows location of hand brake cable adjustment (1) *on the rear axle*

Front brakes

A separate Micram adjuster is provided for each shoe. Jack up the car until the wheel concerned is clear of the ground. Remove the wheel disc and rubber dust plug from the adjusting hole. Rotate the wheel until the adjusting hole comes opposite one of the adjusters (located at eight and two o'clock). Using a screwdriver, turn the adjuster in a clockwise direction until the brake-shoe is in contact with the brake-drum, then turn the adjuster back one notch; this should provide correct clearance between the shoe and the drum. If closer adjustment is required, spin the drum and apply the brakes hard; this will correctly position the shoe, after which a further adjustment check should be made. Repeat these operations on the second adjuster. Adjust the other wheel shoes in similar manner.

Rear brakes

Place chocks under one of the front wheels and release the hand brake. Proceed as for the front brake adjustment but note that there is only one shoe adjuster for each rear wheel, and that it may be necessary to back off two notches to provide clearance for the two shoes.

Section M.3

HAND BRAKE ADJUSTMENT

The hand brake operates on the rear wheels only and is applied by a pull-up-type lever situated on the side of the propeller shaft tunnel. The Bowden cable from the control is attached to the compensator mounted on the rear axle. From compensator to the brake levers are transverse rods, which are non-adjustable.

Should the hand brake lack power or the lever show signs of reaching the end of its travel on the ratchet before

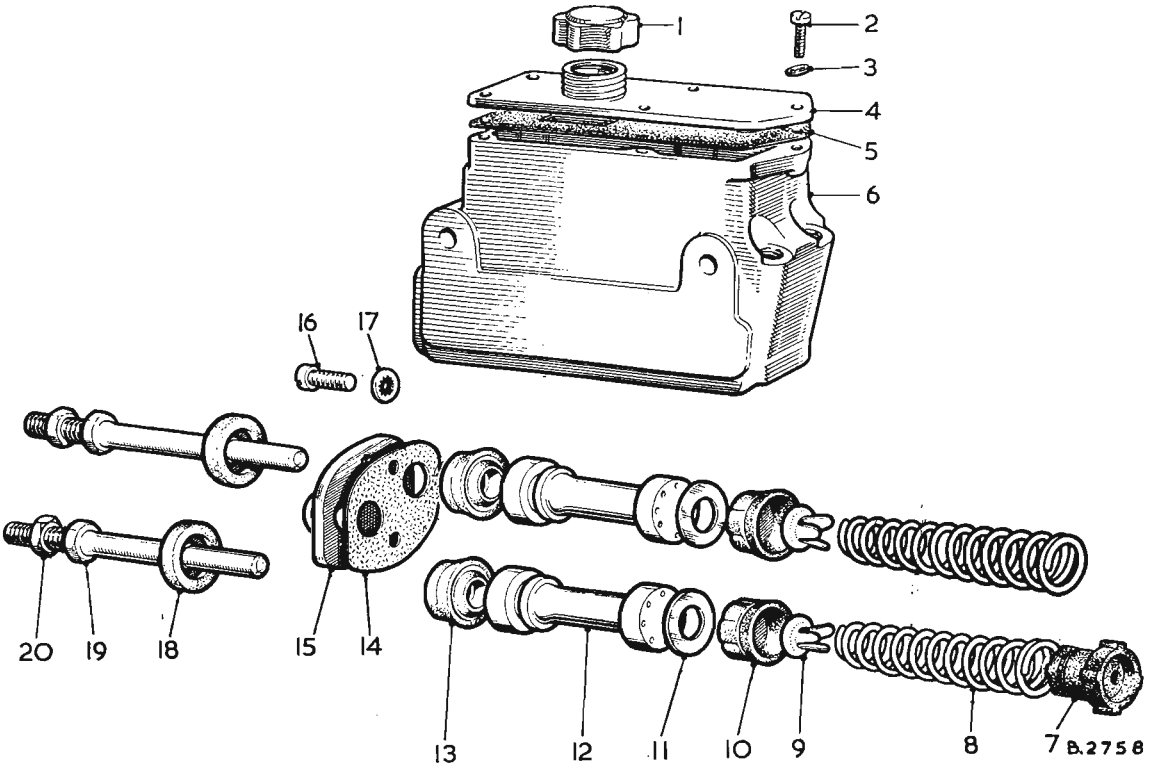


Fig. M.5

Master cylinder exploded

1. Filler cap.
2. Fixing screw.
3. Shakeproof washer.
4. Tank cover.
5. Tank cover gasket.
6. Cylinder barrel and tank.
7. Valve (Brake bore only).
8. Return spring.
9. Spring retainer.
10. Main cup.
11. Piston washer.
12. Piston.
13. Secondary cup.
14. Gasket.
15. Boot fixing plate.
16. Fixing washer.
17. Shakeproof washer.
18. Boot.
19. Push rod.
20. Push rod adjuster.

the brake-shoes come into operation, readjustment is necessary; this will also be indicated by excessive pedal travel.

First make sure that the shoes are properly adjusted by means of the shoe adjusters as explained in Section M.2. This is most important.

Check the hand brake action, and if excessive travel still prevents proper application of the brakes it is probable that the brake-shoe linings are worn, or in exceptional cases the cables have stretched.

Examine the brake-shoe linings, and if worn renew or reline them if replacement shoes are not available.

The hand brake linkage is set when leaving the Works and should not require any attention. Only when a complete overhaul is necessary should the hand brake linkage require resetting.

To adjust the hand brake the rear shoes should be locked to the drums, the hand brake control just slightly applied, and the cable slackness just removed by adjusting the sleeve nut at the rear of the Bowden cable (Fig. M.4).

Section M.4

BLEEDING THE HYDRAULIC SYSTEM

Bleeding is necessary after any of the hydraulic lines or unions have been disconnected, or if the level of the brake fluid has been allowed to fall so low that air has entered the master cylinder.

With all the hydraulic connections secure and the supply tank topped up with the fluid, remove the rubber cap from the rear bleed nipple which is farthest away from the master cylinder and fit the bleed tube over the bleed nipple, immersing the free end of the tube in a clean jar containing a little brake fluid.

Unscrew the bleed nipple about three-quarters of a turn and then operate the brake pedal with a slow, full stroke until the fluid entering the jar is completely free of air bubbles. Then, during a down stroke of the brake pedal, tighten the bleed screw sufficiently to seat the ball, remove the bleed tube, and replace the bleed nipple dust cap. **Do not use excessive force when tightening the bleed screws.**

Repeat this process with each bleed screw at each of the three remaining backplates, finishing at the wheel nearest the master cylinder. Always keep a careful check on the supply tank during bleeding since it is most important that a full level be maintained. Should air reach the master cylinder from the supply tank, the whole of the bleeding operation must be repeated.

After bleeding, top up the supply tank to its correct level.

Never use fluid that has just been bled from a brake system for topping up the supply tank, as this brake fluid may be to some extent aerated. Such fluid must be

allowed to stand for **at least** 24 hours before it is used again. This will allow time for the air bubbles in the fluid to disperse.

Great cleanliness is essential when dealing with any part of the hydraulic system, and especially so where the brake fluid is concerned. Dirty fluid must never be added to the system.

Section M.5

MASTER CYLINDER

Construction

The master cylinder caters for operation of both brakes and clutch. It has two bores which are side by side and, except for the fact that one has no check valve, each bore accommodates normal master cylinder parts. The bore with the check valve serves the brakes, the other serves the clutch slave cylinder.

Removing

The following removal procedure involves the withdrawal of the master cylinder unit complete with clutch and brake pedals as it is not necessary to disconnect the pedals.

NOTE.—Before disconnecting the master cylinder ascertain, for assembly purposes, which bore communicates with the clutch slave cylinder.

Remove the heater blower unit (if fitted) by first releasing the two electrical connections, and then remove the set screws securing the heater blower bracket to the bulkhead. Remove the set screws securing the master cylinder mounting plate to the engine bulkhead. Disconnect the two hydraulic pipes at their unions with the rear of the master cylinder unit. Withdraw the master cylinder unit upwards and at the same time manipulate the clutch and brake pedals through the hole in the bulkhead.

Dismantling

Disconnect each pedal from its master cylinder push-rod by removing the spring clips and withdrawing the clevis pins.

Remove the bolts securing the master cylinder unit to its mounting plate and withdraw the complete unit.

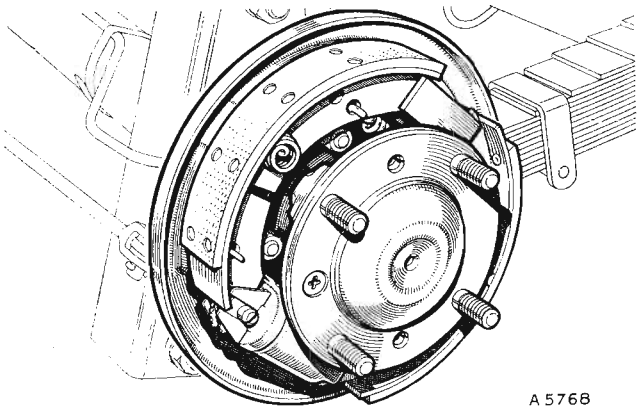


Fig. M.6

The rear brake assembly

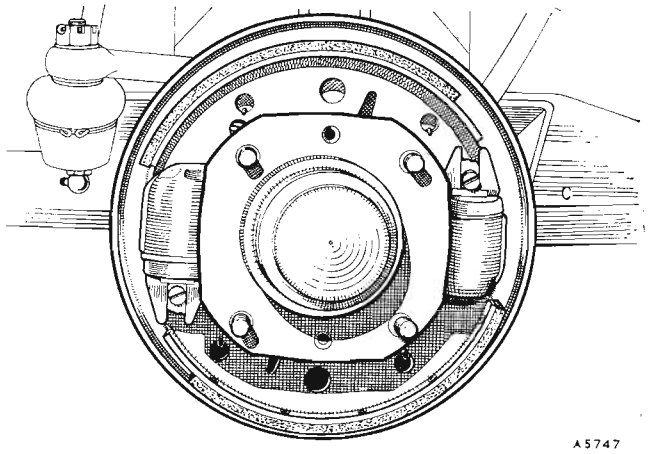


Fig. M.7

The front brake assembly

Remove the set screws securing the boot fixing plate to the master cylinder.

Detach the fixing plate from the master cylinder and remove the boots and push-rods.

Remove the common filler cap and drain the fluid into a clean container.

Withdraw the piston, piston washer, main cup, return spring and valve body complete with rubber cup, and rubber washer.

Remove the secondary cup by stretching it over the end flange of the piston.

Examine all parts, especially the washers, for wear or distortion, and fit new parts where necessary.

Reassembling

Reassembly is the reverse of the removal procedure, with particular attention being paid to the fitting of the rubber boots. The vent hole in each boot should be at the bottom when the cylinder is mounted on the vehicle.

Refitting

The installation of the master cylinder unit is the reversal of the removal procedure.

If no further maintenance is necessary, remember to bleed the system.

Section M.6

BRAKE PEDAL

Removing

Working beneath the bonnet, disconnect the clutch and brake pedal levers from the master cylinder push-rods by removing the spring clips and withdrawing the clevis pins. From within the car, remove the nut and spring washer and withdraw the fulcrum pin. Note that a distance piece separates the two pedals. The pedals can now be removed.

The pedals together with the master cylinder assembly can be removed as one unit. This operation is described in the master cylinder removal section.

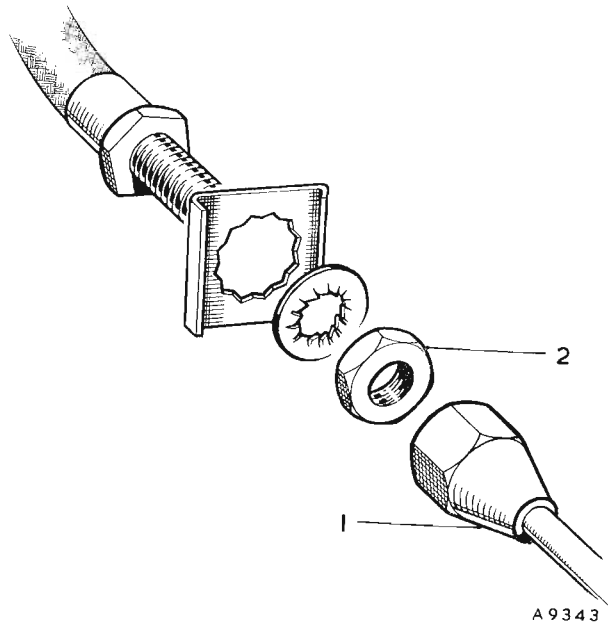


Fig. M.8

The union nut (1) *is the one which must be first unscrewed to release the flexible hose from the pipeline. The attachment nut* (2) *can then be removed*

Refitting

When refitting reverse the removal procedure.

Section M.7

FRONT BRAKE ASSEMBLIES (Early Cars)

Removing

Disconnect the hydraulic pipe from the master cylinder at the backplate.

Remove the front brake backplate from the front suspension as described in Section K.3.

Dismantling

Pull one of the brake-shoes against the load of the return springs, away from the abutment on the closed end of a brake cylinder, and slide the Micram mask off the piston cover of the operating cylinder; on releasing the tension of the return springs the opposite brake-shoe will fall away.

Disconnect the bridge pipe between the two brake cylinders complete with the banjo adaptors. Unscrew the nuts and withdraw the brake cylinders from the backplate.

To dismantle a brake cylinder withdraw the piston complete with the piston cover from the cylinder and apply a gentle air pressure to the fluid connection to blow out the rubber cup and cup filler.

Reassembling

Clean all components with Lockheed Brake Fluid and renew all rubber cups and washers before reassembly. Take care to fit the small end of the coil spring over the projection in the cup filler.

Reassemble by reversing the dismantling sequence.

Refitting

Reverse the removal procedure when refitting.

Section M.8

REAR BRAKE ASSEMBLIES (Early Cars)

Removing

Remove the wheel, drum, and axle shaft as described in Section H.3. Remove the hub assembly (see Section H.4).

Disconnect the hydraulic pipe from the wheel cylinder and the hand brake lever rod, both situated at the backplate.

Remove the securing nuts and bolts and lift off the backplate.

Dismantling

Pull the trailing shoe against the load of the return springs and away from its abutment at either end. On releasing the tension of the return springs the leading shoe will fall away together with the Micram adjuster and mask. Remove the bolt securing the banjo adaptor to the wheel cylinder and remove the rubber boot.

Remove the wheel cylinder piston, swing the hand brake lever until the shoulder is clear of the backplate, and slide the cylinder casting forward. Pivot the cylinder about its forward end and withdraw the rear end from the slot in the backplate; a rearward movement of the cylinder will now bring its forward end clear of the backplate.

Withdraw the piston complete with cover from the cylinder. Remove the hand brake pivot pin and lever. Apply a gentle air pressure to the fluid connection and blow out the hydraulic piston, rubber cup, and cup filler.

Reassembling

Reassemble by reversing the dismantling procedure, giving special care to ensure that the slot in the piston coincides with the lever slot in the cylinder casting.

Also ensure that the Micram adjuster is in the slot in the leading shoe with the mask in position, and that the return springs lie between the brake-shoes and the backplate. It should be noted that the unlined end of the leading shoe is to be nearest to the brake cylinder, whilst the unlined end of the trailing shoe is to be nearest the abutment block.

Refitting

Before reversing the removal procedure ensure that all the adjusters are backed off.

Section M.9

BRAKE-SHOE RELINING

If it becomes necessary to renew the full set of brake linings due to excessive wear it is essential to use the same material as originally specified or of an approved

alternative, otherwise the present front-to-rear brake balance will be adversely affected.

Do not reline the brake-shoes with different types of lining.

Any divergence from these stipulations may give rise to serious consequences due to out-of-balance braking.

For information as to approved lining materials refer to **'GENERAL DATA'.**

Owing to the need for the brake linings to be perfectly concentric with the brake-drums, special precautions must be taken when relining the shoes. It is not recommended that relining be undertaken unless all the specialist facilities are available. We advise the use of replacement shoes, and renewal should be carried out in sets to ensure even braking conditions.

After riveting the new linings to the brake-shoes it is essential that any high-spots should be removed before replacement on the backplate.

When new linings are fitted considerable adjustment must be made to the foot brake mechanism; turn the adjusters to their fully 'off' position before attempting to refit the brake-drums over the new linings. The hand brake must also be in the fully released position.

Do not allow grease or paint to come into contact with the brake linings.

Section M.10

REMOVING A FLEXIBLE HOSE

Do not attempt to release a flexible hose by turning either end with a spanner; it should be removed as follows.

Unscrew the metal pipe line union nut from its connection to the hose.

Hold the hexagon on the flexible hose and remove the locknut securing the flexible hose union to the bracket.

Unscrew the flexible hose from the cylinder.

Section M.11

BRAKE PEDAL CLEARANCE

The correct amount of free movement between the master cylinder push-rod and piston is set during erection of the vehicle and should never need alteration.

In the event of the adjustment having been disturbed, reset the effective length of the rod connecting the piston to the pedal until the pedal pad can be depressed approximately $\frac{5}{32}$ in. (4 mm.) before the piston begins to move. The clearance can be felt if the pedal is depressed by hand. It is very important that the push-rod should have a minimum free movement of $\frac{1}{32}$ in. (·8 mm.) before the piston starts to move.

Section M.12

MAINTENANCE
(Later Cars)

Periodically examine the quantity of brake fluid in the master cylinder. The level should be kept $\frac{1}{4}$ in. (6·5 mm.) below the bottom of the filler neck, but not higher. The necessity for frequent topping up is an indication of a leak in the system which should at once be traced and rectified.

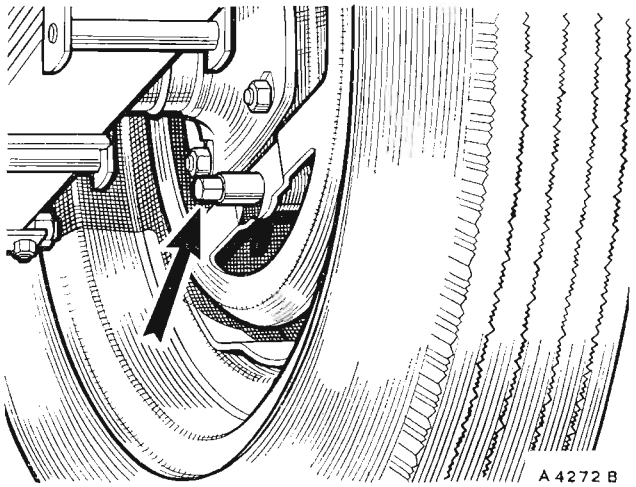


Fig. M.9

One square-headed brake adjusting bolt is provided on each rear brake-plate

Adjust the rear brake-shoes to compensate for wear of the linings. The need for this is shown by the pedal going down almost to the floorboards before solid resistance is felt.

In order to maintain peak braking efficiency and at the same time obtain maximum life from the front brake friction pads they should be examined periodically, and if one pad has more wear than the other their operating positions should be changed over.

IMPORTANT.—Serious consequences may result from the use of incorrect fluids. Replenish with LOCKHEED DISC BRAKE FLUID. Do not use any substitute as this will seriously affect the working of the system.

When climatic temperatures are below −34° C. (−30° F.) the systems should be drained and refilled with Lockheed Super Heavy Duty Brake Fluid or a fluid conforming to Specification S.A.E. 70.R3.

Lubrication

There is one lubricating nipple on the top of the hand brake compensating lever, and this is accessible from underneath the rear of the car. Wipe away all the dirt from the nipple and give one or two strokes at regular intervals with a gun filled with lubricant.

The hand brake cable nipple located just forward of the rear axle must receive three or four strokes at regular intervals with a gun filled with lubricant.

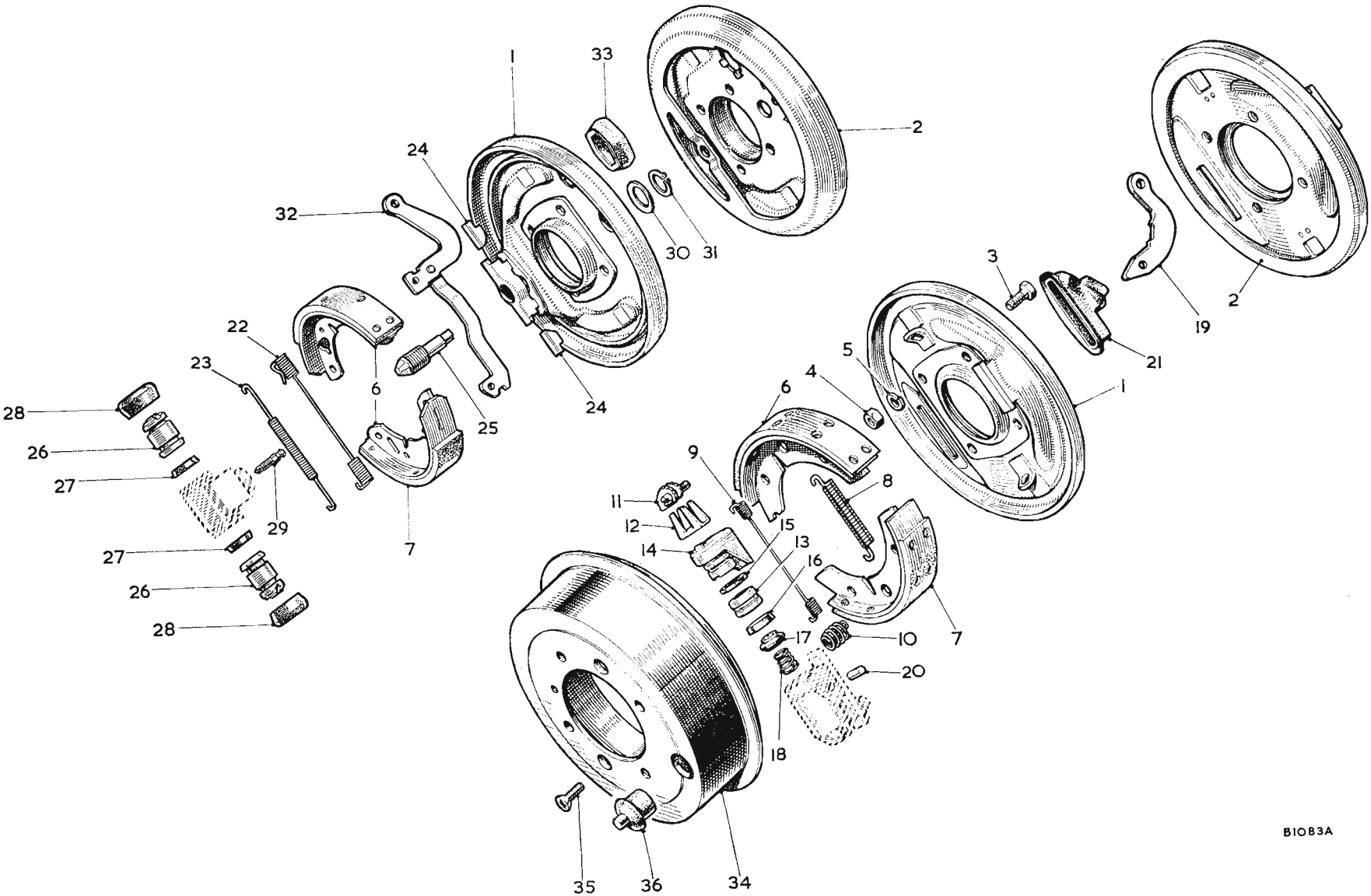
Section M.13

FRONT BRAKE ASSEMBLIES
(Later Cars)

Renewing friction pads

Jack up the car and remove the road wheel. Depress the pad retaining spring and withdraw the retaining split

THE REAR BRAKE COMPONENTS



KEY TO THE REAR BRAKE COMPONENTS

No.	*Description*
1.	Brake-plate—R.H.
2.	Brake-plate—L.H.
3.	Set screw.
4.	Nut.
5.	Spring washer.
6.	Brake-shoe assembly.
7.	Liner with rivets.
8.	Shoe return spring (abutment end).
9.	Shoe return spring (cylinder end).
10.	Steady spring.
11.	Adjuster assembly.
12.	Mask adjuster.
13.	Piston.
14.	Piston with dust cover.
15.	Seal.
16.	Cup.
17.	Cup filler.
18.	Spring.
19.	Hand brake lever.
20.	Pivot pin.
21.	Boot.
22.	Shoe return spring (cylinder end).
23.	Shoe return spring (adjuster end).
24.	Tappet.
25.	Wedge.
26.	Piston.
27.	Seal.
28.	Boot.
29.	Bleeder screw.
30.	Belleville washer.
31.	Circlip.
32.	Hand brake lever.
33.	Boot.
34.	Brake-drum.
35.	Set screw.
36.	Plug.

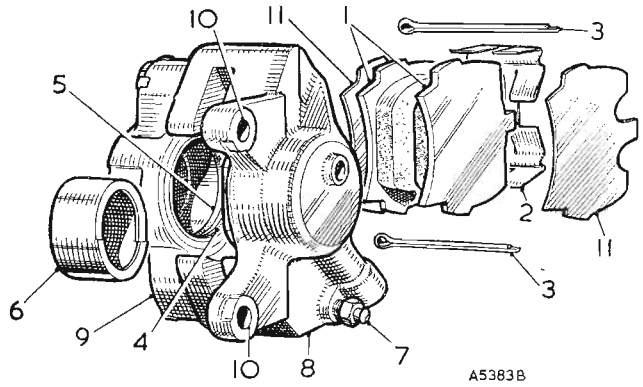


Fig. M.10

The front brake calliper components

1. Friction pads.
2. Pad retaining spring.
3. Retaining pin.
4. Piston dust seal.
5. Piston fluid seal.
6. Piston.
7. Bleeder screw.
8. Calliper (mounting half).
9. Calliper (rim half).
10. Calliper mounting point.
11. Anti-squeak shims.

pins. Remove the spring and withdraw the friction pads and anti-squeak shims from the calliper, using a slight rotational movement to assist removal. It may be necessary to use a pair of pointed-nose pliers for this operation.

Thoroughly clean the exposed face of each piston and ensure that the recesses in the calliper which receive the friction pad assemblies are free from rust and grit. Press each piston back into the calliper. Whilst this is being done the fluid level in the master cylinder will rise, due to fluid being displaced by the pistons. It may be necessary to siphon off any surplus from the master cylinder to prevent the fluid from overflowing.

Check that the relieved face of each piston is correctly positioned and fit the new friction pad assemblies into the calliper.

Fit the anti-squeak shims between the piston and friction pad.

Ensure that the pad assemblies are free to move easily in the calliper recesses. Remove any high-spots from the pad pressure plate by filing carefully.

Refit the retaining spring in position, press down the spring, and insert the split pins. If the retaining springs show any signs of damage or loss of tension, new springs must be fitted.

After fitting new friction pads operate the brake pedal several times to adjust the brake. Top up the master cylinder if necessary.

Removing and dismantling a calliper

Disconnect the brake fluid supply hose.

Remove the nuts securing the hose retaining plate to the calliper assembly.

Unscrew and remove the studs securing the calliper to the stub axle and withdraw the calliper. Depress the pad retaining spring and withdraw the retaining split pins. Remove the friction pads and anti-squeak shims and clean the outside of the calliper, making sure that all dirt and traces of cleaning fluid are completely removed.

Reconnect the brake fluid supply hose and support the calliper to avoid straining the hose.

Clamp the piston in the mounting half of the calliper and gently apply the foot brake. This operation will force the piston in the rim half of the calliper to move outwards. Continue with gentle pressure on the foot pedal until the piston has emerged sufficiently for it to be removed by hand. Have a clean receptacle ready to catch the fluid as the piston is removed.

With a suitable blunt-nosed tool remove the fluid seal from its groove in the bore of the calliper, taking great care not to damage the bore of the calliper or the seal retaining groove.

The dust seal retainer can be removed by inserting a screwdriver between the retainer and the seal and gently prising the retainer from the mouth of the calliper bore. The rubber seal can then be detached.

Remove the clamp from the mounting-half piston. To remove the mounting-half piston from the calliper it is necessary first to refit the rim-half piston, and thereafter the procedure is as previously detailed.

When cleaning out the calliper it is essential that only methylated spirit or the correct Lockheed brake fluid be used as a cleaning medium. Other types of cleaning fluid may damage the internal rubber seal between the two halves of the calliper.

Brake discs

Follow the procedure detailed in Section K.6 for the removal of the brake disc. Should the maximum run-out at the outer periphery of the braking surface exceed ·006 in. (·152 mm.) after fitting, the disc must be removed and repositioned on the drive shaft splines.

Reassembling

Coat a new fluid seal with Lockheed Disc Brake Lubricant, making sure that the seal is absolutely dry before so doing, and ease the seal into its groove with the fingers until it is seating correctly in the groove.

Slacken the bleeder screw in the calliper one complete turn. Coat the piston with Lockheed Disc Brake Lubricant and locate the piston squarely in the mouth of the bore with the cut-away portion of the piston face correctly positioned downwards.

Press in the piston until approximately $\frac{5}{16}$ in. (8 mm.) of the piston is protruding from the bore. Take great care to prevent the piston tilting during this operation. If the dust seal and retainer have been previously removed, take a new, perfectly dry dust seal, coat it with Lockheed Disc Brake Lubricant, and fit the seal into its retainer. Position the seal assembly on the protruding portion of the piston with the seal innermost, ensuring that the assembly is square with the piston. Press home the piston and seal assembly with the clamp. Retighten the bleeder screw.

The mounting-half piston is dealt with in the same manner as described for the rim-half piston. The rubber hose must be disconnected to allow the clamp to be used and the bleeder screw must be slackened.

Reconnect the hose and secure the calliper to the stub axle. Do not depress the brake pedal. Fit the friction pad assemblies, together with their retaining springs and split pins, and bleed the system.

After bleeding operate the brake pedal several times to adjust the brake.

Section M.14

REAR BRAKE ASSEMBLIES (Later Cars)

Brake-shoe adjustment

As the brake linings wear, the pedal will travel nearer to the floorboards before the brakes are applied. When the travel becomes excessive the brake-shoes must be adjusted to bring the linings closer to the brake-drum.

One common adjuster controlling the adjustment of both the leading and trailing brake-shoes is located on the back of each rear brake backplate.

Jack up the car and turn the adjuster screw in a clockwise direction until the brake-drum is locked, then slacken the screw until the drum rotates without rubbing.

Repeat this adjustment on the other rear road wheel.

Removing the rear wheel cylinder assembly

Jack up the car, remove the road wheel, and thoroughly clean the brake backplate.

Disconnect the flexible fluid supply hose as detailed in Section M.10.

Unscrew and remove the bleed screw. Remove the circlip from the cylinder boss protruding through the backplate. Remove the brake drum as described in Section H.3. Remove the brake-shoes and extract the cylinder.

Examining the rear wheel cylinder assembly

Remove the dust seals from the ends of the cylinder and extract both pistons. The rubber piston seals should be removed and new seals fitted by using the fingers only.

Do not clean the rubber parts with anything other than the correct Lockheed brake fluid. All traces of petrol (gasoline), etc., used for cleaning metal parts must be removed before reassembly.

Refitting the rear wheel cylinder assembly

The procedure for refitting a rear wheel cylinder is a reversal of the removal sequence. In addition, attention must be given to bleeding the hydraulic system and adjusting the brake-shoes.

Removing rear shoes

Chock the front road wheels and set the hand brake in the 'off' position.

Jack up the car and remove the road wheel.

Remove the brake drum as described in Section H.3.

Note the position in which the pull-off springs are fitted and remove the shoes and springs.

NOTE.—Do not press the brake pedal with the shoes removed from the backplate.

Refitting rear shoes

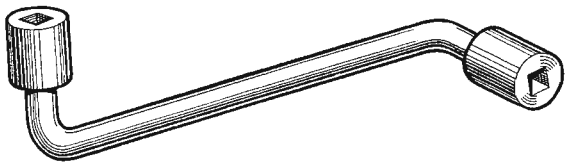
Refitting is a reversal of the above procedure; make sure that the pull-off springs are anchored in their correct holes in the shoe web and that the brake-shoes register correctly in the slotted end of the brake wheel cylinder piston and in the adjuster tappets.

(*For* **'SERVICE TOOLS'** *see page M.14*)

SERVICE TOOLS

18G 619. Brake Adjusting Spanner

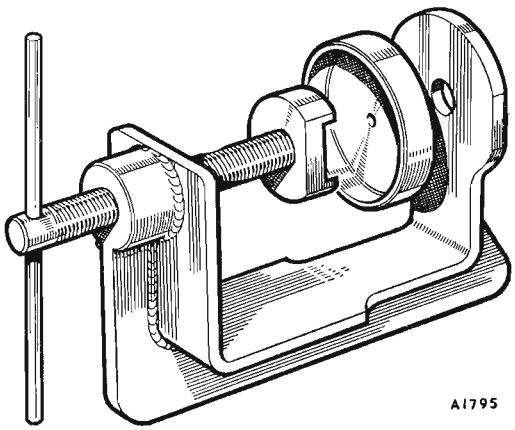
The use of this spanner obviates damage to the adjusters, enables the brakes to be adjusted more speedily and effectively, and removes the possibility of damaged knuckles and fingers.



18G 619

18G 590. Disc Brake Piston Resetting Tool

Designed to reset the pistons when renewing the disc brake friction pads, this tool will also be found invaluable, when servicing the callipers, to hold one piston in position while removing the other piston by means of hydraulic pressure generated in the master cylinder.



18G 590