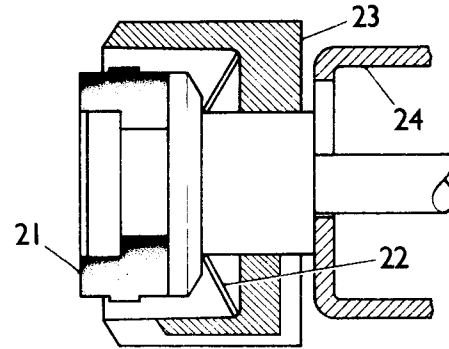
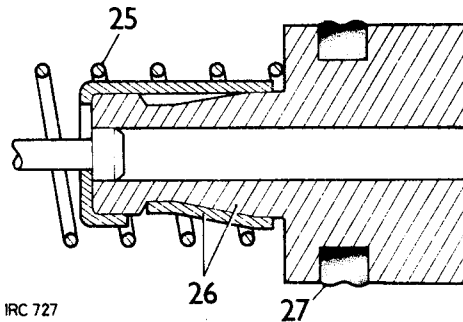


**Assembling**

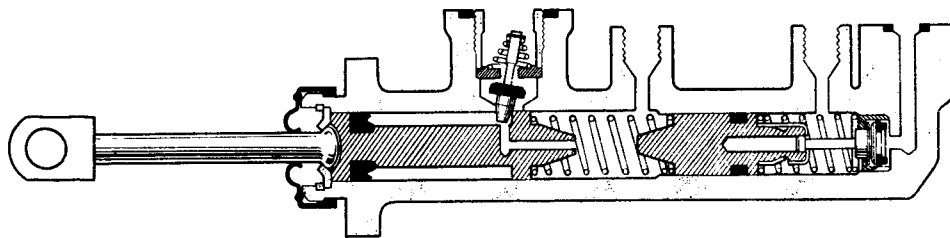
- 20 During assembly, smear the seals with Castrol-Girling rubber grease and the remaining internal items with Castrol-Girling Brake and Clutch Fluid.
- 21 Fit the valve seal, flat side first, to the end of the valve stem.
- 22 Fit the wave washer, domed side toward the valve head.
- 23 Fit the valve spacer, legs first.
- 24 Fit the valve retainer.
- 25 Locate the spring over the retainer and squarely seat on the valve spacer.
- 26 Insert the inner piston into the spring and compress until the locking prong in the valve retainer engages in the groove in the piston. If necessary, depress the locking prong to ensure that the free end is fully engaged with the groove shoulder.
- 27 Fit the piston seal.
- 28 Insert the inner piston and valve assembly, valve end first, into the cylinder.
- 29 Reverse 5 to 9. Torque loading for tipping valve retainer is 4,9 to 6,2 kgf. m. (35 to 45 lbf. ft.).
- 30 Reverse 2 to 4. Do not overtighten the reservoir fixings. Torque load 0,3 to 0,4 kgf. m. (2 to 3 lbf. ft.).
- 31 Refit the master cylinder. 70.30.08.



IRC 726



IRC 727



4RC IO65

**DATA**

Master cylinder bore size:

- |                  |                              |
|------------------|------------------------------|
| 88 models .....  | 22,2 mm (0.875 in.) diameter |
| 109 models ..... | 25,4 mm (1.0 in.) diameter   |

**FLUID RESERVOIR Non-Servo Systems**

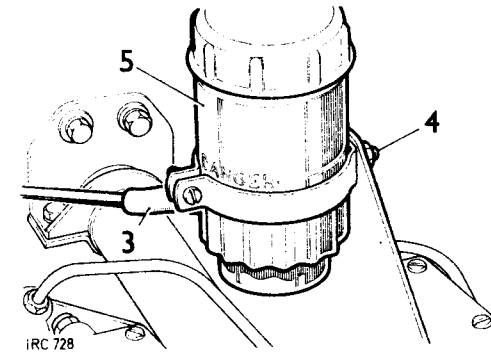
Remove and refit 70.30.15

**Removing**

- 1 Lift the bonnet and prop open.
- 2 Make provision to catch the fluid which will be released.
- 3 Disconnect the fluid outlet pipe.
- 4 Remove the clamp fixings.
- 5 Withdraw the reservoir.

**Refitting**

- 6 Reverse instructions 2 to 5.
- 7 Bleed the hydraulic system. 70.25.02.
- 8 Close the bonnet.



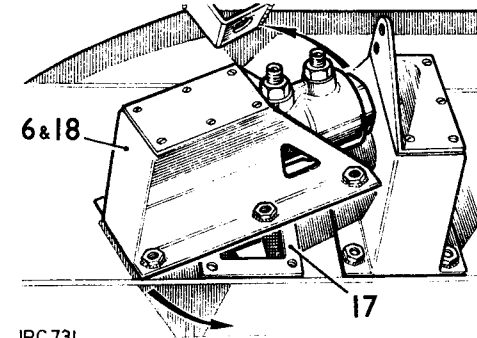
IRC 728

**BRAKE PEDAL, Non-servo systems**

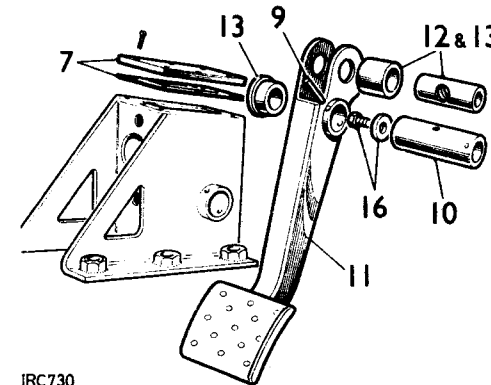
Remove and refit 70.35.01

**Removing**

- 1 Lift and prop the bonnet.
- 2 Disconnect the inlet pipe at the master cylinder.
- 3 Disconnect the outlet pipe.
- 4 Disconnect the return spring from the brake pedal.
- 5 Remove the fixings securing the brake pedal bracket to the toe box.
- 6 Carefully withdraw the brake pedal and bracket assembly from the engine compartment, manoeuvring the pedal through the aperture in the toe box.
- 7 Remove the top cover and gasket from the brake pedal bracket.
- 8 Remove the nut and plain washer retaining the master cylinder push rod to the brake pedal trunnion, and push the rod into the master cylinder to clear the trunnion.
- 9 Using a suitable punch, drift out pin, from the pedal shaft.
- 10 Remove pedal shaft.
- 11 Withdraw the brake pedal complete with bushes and trunnion.
- 12 If required, remove the bushes, trunnion and distance piece from the brake pedal.



IRC 731

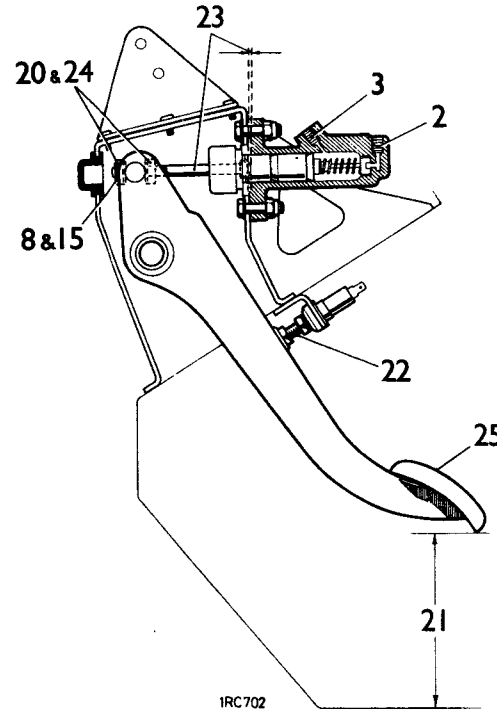


IRC 730

*continued*

**Refitting**

- 13 If removed, fit the distance piece, trunnion and bushes to the brake pedal. Lubricate the trunnion and distance piece with general purpose grease on assembly. New pedal bushes must be reamed to 15,9 mm (0.75 in).
- 14 Smear the pedal bushes and shaft with general purpose grease; locate the pedal in position in the bracket and secure with the shaft and pin.
- 15 Locate the master cylinder push rod through the pedal trunnion and fit the locknut and washer.
- 16 Remove the oil plug from the pedal shaft; fill the shaft bore with SAE 20 oil, then replace the plug and joint washer.



IRC702

**(Non-Servo systems)**

- 17 Place the gasket in position on the securing flange of the brake pedal bracket. If necessary, use a little Bostik adhesive to retain the gasket.
- 18 Carefully locate the brake pedal and bracket assembly in position on the toe box, manoeuvring the pedal through the aperture in the toe box.
- 19 Secure the brake pedal and bracket assembly to the toe box, ensuring that the gasket remains in position.

**Master cylinder and pedal setting, items 20 to 25**

- 20 Slacken both nuts on the master cylinder push rod.
- 21 Check the pedal setting which should be 158 mm (6.250 in.) with the stop light switch depressed to the 'off' position.
- 22 Adjust the pedal stop, as required, to obtain the correct distance.
- 23 Adjust the master cylinder push rod until there is 1,55 mm (0.062 in.) approximately free play between the push rod and the master cylinder piston.

- 24 Tighten both locknuts.
- 25 Ensure there is 3,17 mm (0.125 in.) minimum free movement at the pedal before pressure is felt. If necessary, re-adjust the master cylinder push rod to obtain the movement.
- 26 Fit the pedal bracket cover and gasket.
- 27 Reverse instructions 1 to 4.

**BRAKE PEDAL, Servo Systems**

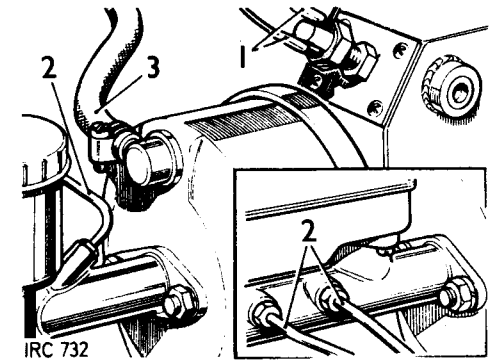
Remove and refit 70.35.01

**Removing**

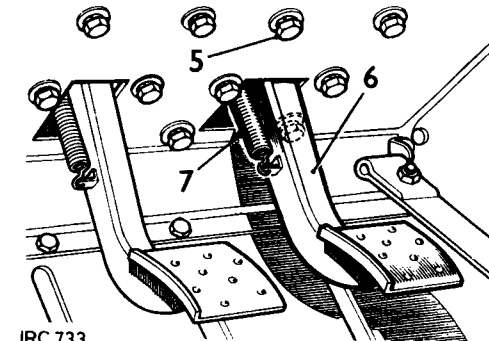
- 1 Disconnect the electrical lead from the stop light switch.
- 2 Disconnect the outlet pipe/s from the master cylinder. Fit a blanking plug to the outlet aperture/s or drain the fluid reservoir, to prevent fluid spillage.

**NOTE:** The illustration inset shows a tandem master cylinder, where fitted.

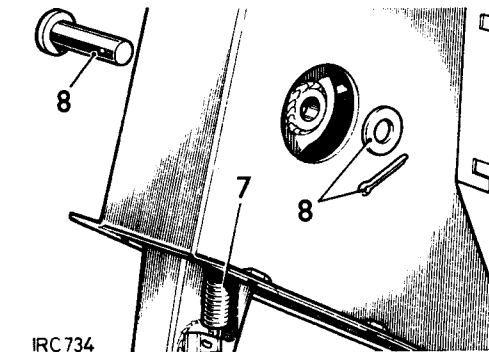
- 3 Disconnect the vacuum pipe from the servo unit.
- 4 Remove the toe-board finisher panel.
- 5 Remove the fixings securing the brake pedal bracket to the toe box.
- 6 Withdraw the brake pedal and bracket assembly from the engine compartment, manoeuvring the pedal through the aperture in the toe box.
- 7 Disconnect the brake pedal return spring.
- 8 Remove the split pin and pivot pin from the brake pedal to servo coupling.
- 9 Using a suitable punch, drift out pin from the pedal shaft.
- 10 Remove the pedal shaft.

*continued*

IRC 732



IRC 733



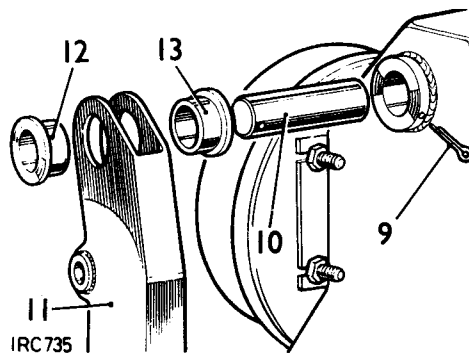
IRC 734

**(Servo Systems)**

- 11 Withdraw the brake pedal complete with bushes.
- 12 If required, remove the bushes from the pedal.

**Refitting**

- 13 If removed, fit the bushes to the brake pedal. New bushes must be reamed to 15,9 mm (0.75 in).
- 14 Reverse instructions 7 to 10, using general purpose grease to lubricate moving parts.
- 15 Apply a waterproof sealant between the joint flanges of the pedal bracket and the toe box.
- 16 Reverse instructions 1 to 6.
- 17 Check, and if necessary, adjust the brake pedal switch located on the pedal box top cover to operate at 19mm to 25mm (0.750 in. to 1 in.) of pedal movement.
- 18 Bleed the complete braking system. 70.25.02.



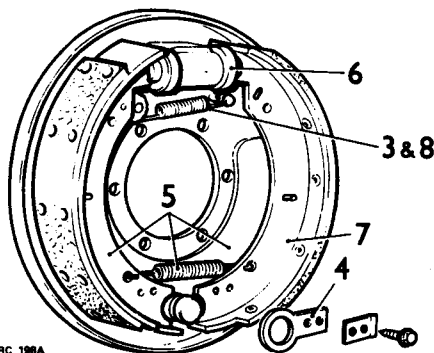
IRC 735

**BRAKE SHOES - 88 models**

**Remove and refit**  
 Front shoes 70.40.02  
 Rear shoes 70.40.03

**Removing**

- 1 Remove the road wheel.
- 2 Remove the brake drum. 70.10.02 or 70.10.03 as applicable.
- 3 Remove the leading shoe pull-off spring.
- 4 Remove the trailing shoe anchor plate.
- 5 Withdraw the brake shoes together from the pivot end first; part them by disconnecting the return spring.
- 6 Retain the pistons in the wheel cylinder, using a rubber band.
- 7 If required, re-line the brakes. 70.40.10.



3RC 100A

**Refitting**

- 8 Reverse 2 to 6, refitting the leading shoe pull-off spring with its longest extremity hooked over the post on the shoe web.
- 9 Adjust the brakes fully on, then back off two serrations on the adjuster.
- 10 Fit the road wheel.

**DATA**

Brake shoe width . . . . .

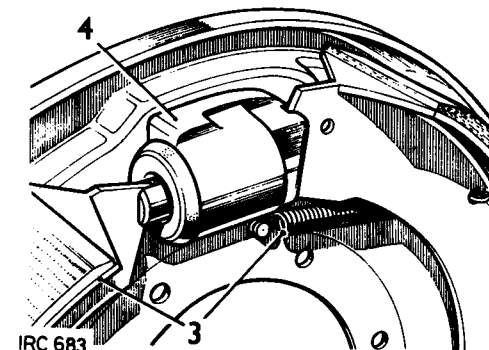
38 mm (1.5 in.)

**FRONT BRAKE SHOES – 109 models**

**Remove and refit** 70.40.02

**Removing**

- 1 Remove the road wheel.
- 2 Remove the brake drum. 70.10.02.
- 3 Release the brake shoes and pull-off springs by levering the trailing edges away from the wheel cylinders.
- 4 Retain the pistons in the wheel cylinders, using a rubber band.
- 5 If required, re-line the brake shoes. 70.40.10.



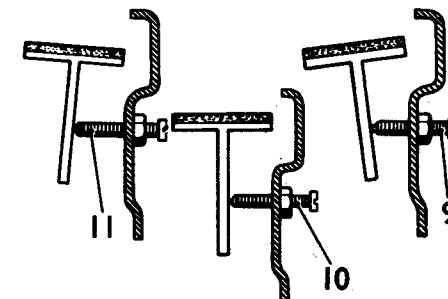
IRC 683

**Refitting**

**NOTE:** Ensure that the correct width of brake shoe is fitted as follows:

109 models with 4-cylinder engines – 57 mm (2.250 in.) wide; 109 models with 6-cylinder engines – 76 mm (3.0 in.) wide.

- 6 Reverse instructions 2 to 4.
- 7 Adjust the brakes fully on, then back-off two serrations on the adjusters.
- 8 If the brake shoe steady posts have been disturbed, reset as follows, items 9 to 11.
- 9 Screw back the steady posts clear of the brake shoes and apply the brakes.
- 10 Screw in the steady posts to contact the brake shoes then secure.
- 11 Do not tilt the brake shoes by screwing in the steady posts too far.
- 12 Fit the road wheel.



IRC 686

**DATA**

Brake shoe width  
 4 cylinder engine models . . . . .  
 6 cylinder engine models . . . . .

57 mm (2.250 in.)  
 76 mm (30 in.).

## REAR BRAKE SHOES — 109 models

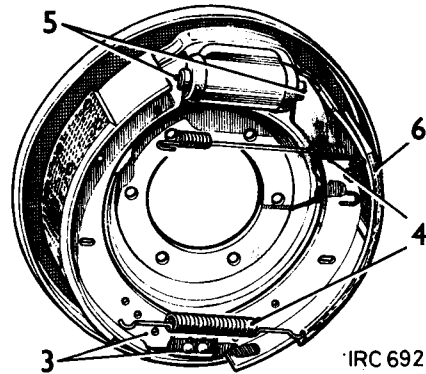
Remove and refit 70.40.03

### Removing

- 1 Remove the road wheel.
- 2 Remove the brake drum. 70.10.03.
- 3 Release the brake shoes by levering the shoes away from the pivot.
- 4 Disconnect the springs.
- 5 Retain the pistons in the wheel cylinder, using a rubber band.
- 6 If required, re-line the brake shoes. 70.40.10.

### Refitting

- 7 Reverse instructions 2 to 4.
- 8 Adjust the brakes fully on, then back-off two serrations on the adjuster.
- 9 Fit the road wheel.



## BRAKE LININGS

Remove and refit 70.40.10

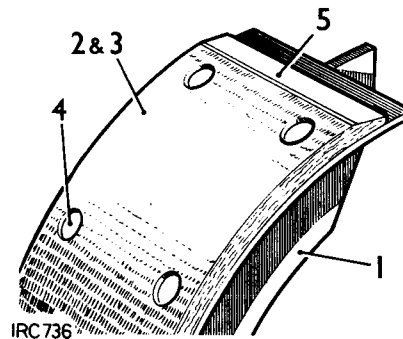
### Removing

- 1 Remove the brake shoes.
- 2 Remove the old linings from the shoes by shearing the riveted end of the rivets.

**NOTE:** Brake shoes fitted with bonded linings: If the shoes incorporate rivet holes, the bonded linings can be removed and riveted linings can be fitted in their place. If the shoes are not pre-drilled, replacement shoe and lining assemblies must be fitted.

### Refitting

- 3 Attach the new linings to the shoes, commencing at the centre and working outwards, but peen the rivets only sufficient to locate the linings.
- 4 With all the rivets loosely fitted, fully secure, commencing from the centre.
- 5 Chamfer both ends of each lining.
- 6 Fit the brake shoes.



## TRANSMISSION BRAKE, HAND LEVER AND LINKAGE

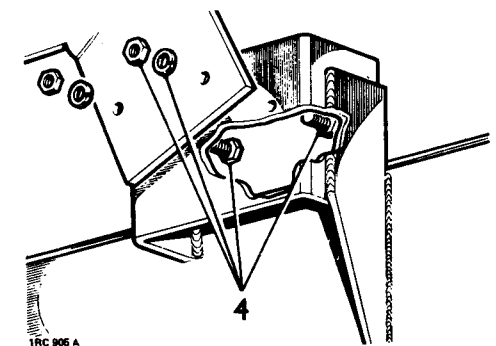
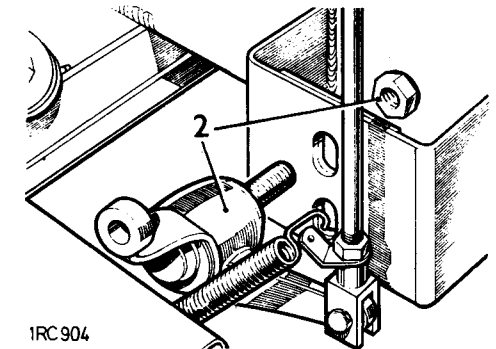
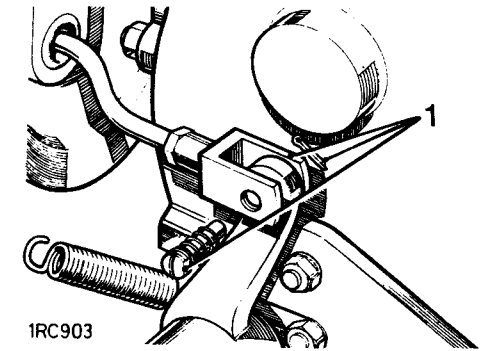
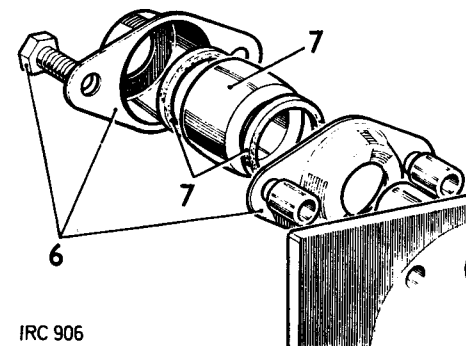
Remove and refit 70.45.01

### Removing

**CAUTION:** Before commencing work on the hand brake mechanism, chock the road wheels to prevent the vehicle moving.

- 1 From under the vehicle, disconnect the hand brake expander rod from the relay lever.
- 2 Remove the relay lever fixings.
- 3 LHS models—Remove the fixings between the hand brake cross-shaft and the R.H. chassis member.
- 4 Remove the fixings securing the hand brake lever to the chassis.
- 5 Remove the hand brake assembly complete from the vehicle, withdrawing the lever grip carefully through the rubber draught excluder in the front of the seat box.  
LHS models—To facilitate removal, release the hand brake lever to ratchet fixings and withdraw the cross-shaft and lever separately.
- 6 LHS models—If required, remove the split housings from the cross-shaft support brackets.
- 7 Remove the felt dust seals and self-lubricating bushes supporting the hand brake cross-shaft.

*continued*



- 8 Remove the brake catch pin, catch and distance pieces.
- 9 RHStg models—Remove the fulcrum pin, ratchet fixings and ratchet from the hand brake lever.
- 10 Unscrew the plunger and withdraw the spring, washer and the plunger rods.
- 11 If required, remove the relay lever and spindle. If necessary, press the bush from the lever.

#### Refitting

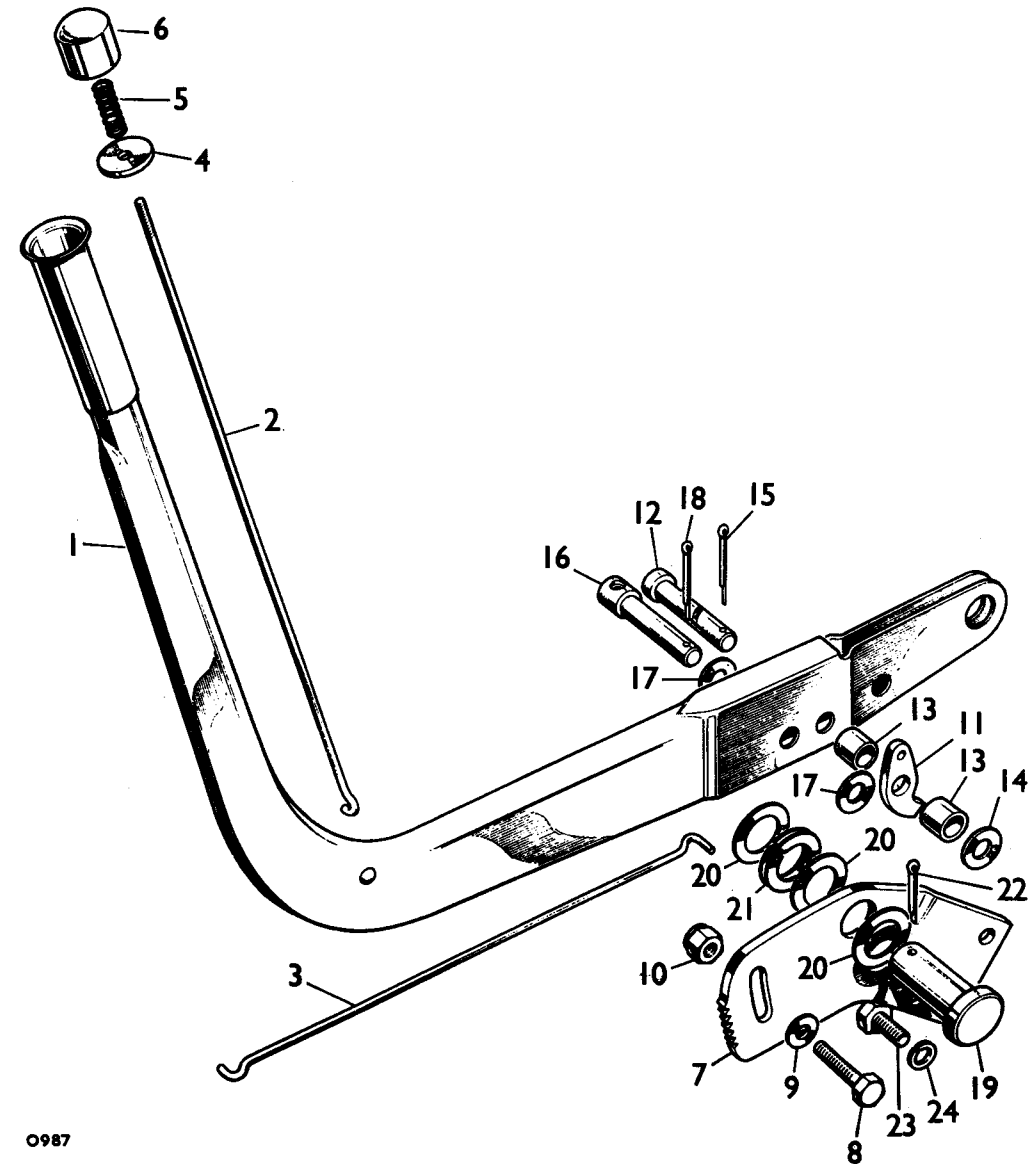
- 12 If removed, fit the bush to the relay lever and fit the relay lever and spindle to the chassis.

**NOTE:** The bore size of a new relay lever bush is 19,088 mm—0,0254 mm (0.7515 in.—0.001 in.).

- 13 Reverse instructions 1 to 11; lubricate the cross shaft bearings with general purpose grease.
- 14 Set the hand brake linkage at the vertical adjuster rod, so that the hand brake has one or two clicks free movement in the 'off' position.

#### Key to hand brake lever arrangement, RH Steering

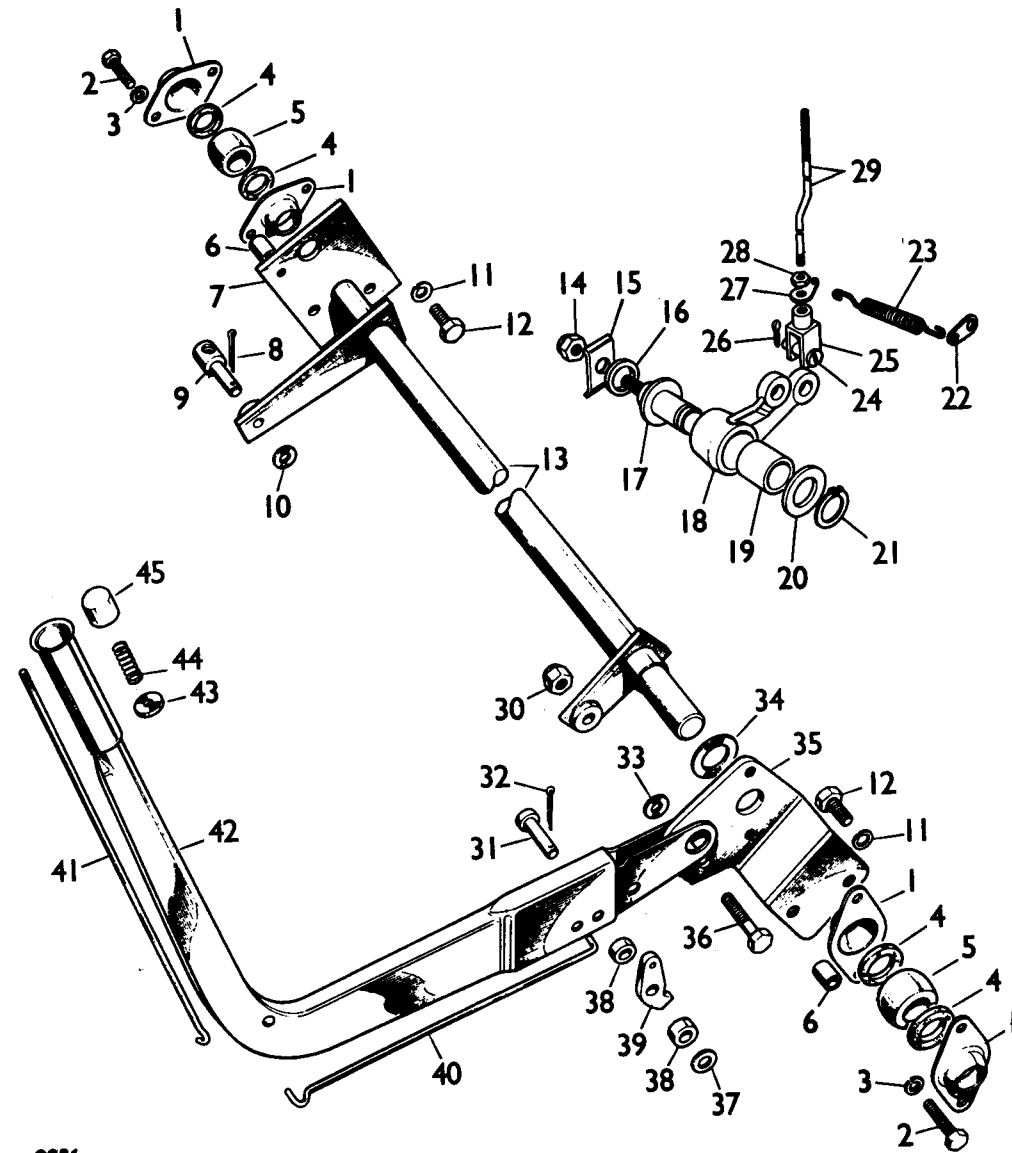
- |    |   |  |
|----|---|--|
| 1  | Hand brake lever                                      |  |
| 2  | Plunger rod, upper                                    |  |
| 3  | Plunger rod, lower                                    |  |
| 4  | Washer for plunger spring                             |  |
| 5  | Spring for plunger rod                                |  |
| 6  | Plunger   |  |
| 7  | Ratchet for hand brake                                |  |
| 8  | Bolt ( $\frac{3}{8}$ in UNF x $1\frac{1}{4}$ in long) | } Fixing lever to ratchet                  |
| 9  | Plain washer  |  |
| 10 | Self-locking nut ( $\frac{3}{8}$ in UNF)              |  |
| 11 | Brake catch   |  |
| 12 | Pin   |  |
| 13 | Distance piece  | } Fixing catch                             |
| 14 | Plain washer  |  |
| 15 | Split pin   |  |
| 16 | Pin for hand brake adjuster rod                       |  |
| 17 | Plain washer  | } Fixing pin to hand brake lever           |
| 18 | Split pin   |  |
| 19 | Fulcrum pin for hand brake lever                      |  |
| 20 | Plain washer  | } Fixing pin to ratchet and lever          |
| 21 | Spring washer   |  |
| 22 | Split pin   |  |
| 23 | Bolt ( $\frac{3}{8}$ in UNF x $\frac{7}{8}$ in long)  | } Fixing hand brake lever to chassis frame |
| 24 | Spring washer   |  |
|    | Nut ( $\frac{3}{8}$ in UNF)                           |  |



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## Key to hand brake lever arrangement LH Steering

- |    |                             |    |                   |
|----|-----------------------------|----|-------------------|
| 1  | Housing—cross shaft bearing | 24 | Clevis pin        |
| 2  | Bolts                       | 25 | Fork—clevis       |
| 3  | Spring washer               | 26 | Split pin         |
| 4  | Felt ring                   | 27 | Spring anchor     |
| 5  | Bearing—cross shaft         | 28 | Nut               |
| 6  | Distance piece              | 29 | Rod               |
| 7  | Support plate               | 30 | Nut—self-locking  |
| 8  | Split pin                   | 31 | Clevis pin        |
| 9  | Pin—adjuster rod            | 32 | Split pin         |
| 10 | Plain washer                | 33 | Plain washer      |
| 11 | Spring washer               | 34 | Washer            |
| 12 | Bolt                        | 35 | Ratchet           |
| 13 | Cross shaft                 | 36 | Bolt              |
| 14 | Nut—self-locking            | 37 | Plain washer      |
| 15 | Plate washer                | 38 | Distance piece    |
| 16 | Washer                      | 39 | Pawl              |
| 17 | Shaft                       | 40 | Plunger rod—lower |
| 18 | Relay lever                 | 41 | Plunger rod—upper |
| 19 | Bush                        | 42 | Hand brake lever  |
| 20 | Washer                      | 43 | Washer            |
| 21 | Circlip                     | 44 | Spring            |
| 22 | Spring anchor               | 45 | Plunger           |
| 23 | Spring                      |    |                   |



0986

## TRANSMISSION BRAKE ASSEMBLY

Adjust. Instructions 36 to 39 70.45.09  
 Remove and refit Instructions 1 to 39 70.45.16

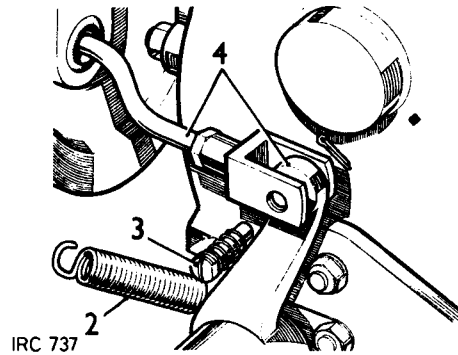
## TRANSMISSION BRAKE SHOES

Remove and refit Instructions 1 to 7, and 32 to 39 70.45.18

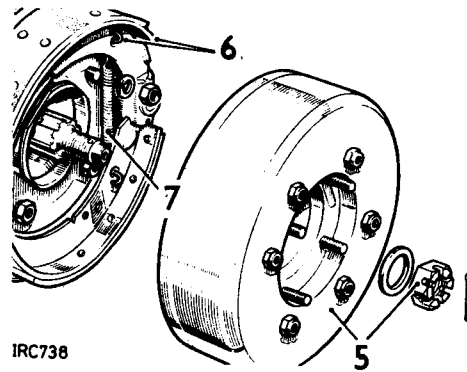
### Removing

**NOTE:** Brake shoe components are accessible after removing the brake drum, which can be detached from the gearbox output flange and pushed back over the propeller shaft.

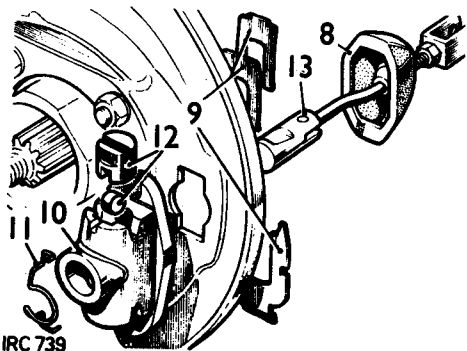
- 1 Chock the road wheels.
- 2 Disconnect the brake return spring.
- 3 Remove the expander rod fork fixings.
- 4 Disconnect the expander rod from the relay lever, and remove the propeller shaft on the 109 in Land-Rover.
- 5 Remove the fixings and withdraw the brake drum.
- 6 Remove the brake shoes together with the pull-off springs.
- 7 Separate the shoes by detaching the springs.
- 8 Withdraw the dust excluder.
- 9 Remove the expander unit fixing plates.
- 10 Withdraw the expander unit.
- 11 Remove the spring clip from the expander unit.
- 12 Withdraw the plungers and rollers.
- 13 Withdraw the operating rod.
- 14 Remove the adjuster unit assembly.
- 15 Pull out the adjuster plungers.
- 16 Unscrew the adjuster cone.



IRC 737



IRC 738



IRC 739

### Inspecting

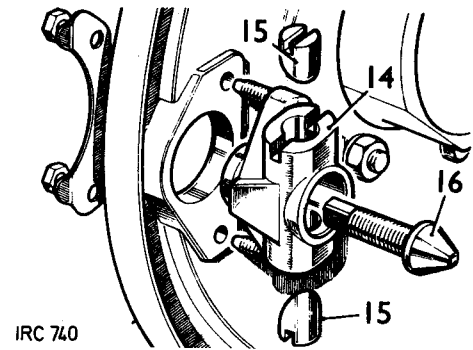
- 17 Clean all components in Girling cleaning fluid and allow to dry.
- 18 Examine all items for obvious wear and replace as necessary.
- 19 Examine the brake drum for scoring and ovality and skim if required. Standard diameter is 228,6 mm (9.0 in.); reclamation limit is 0,75 mm (0.030 in.) oversize.
- 20 If the brake linings are oily, check and if necessary replace the output shaft oil seal, Division 37.
- 21 If required, reline the brake shoes. 70.40.10.

### Assembling

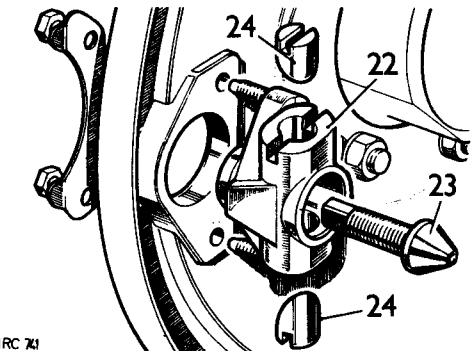
- 22 Fit the adjuster unit housing, do not tighten the fixings at this stage.
- 23 Screw in the adjuster cone.
- 24 Grease and refit the adjuster plungers.

**NOTE:** The two plungers are identical and may be fitted to either bore. Align the chamfered ends of the plungers with the cone on the adjuster.

*continued*

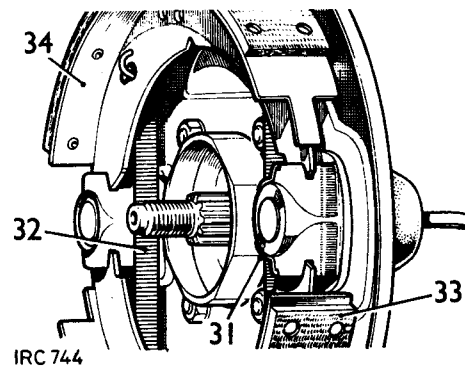
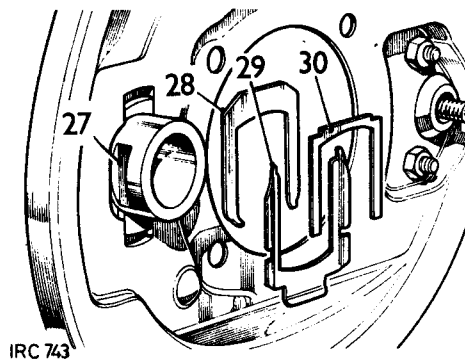
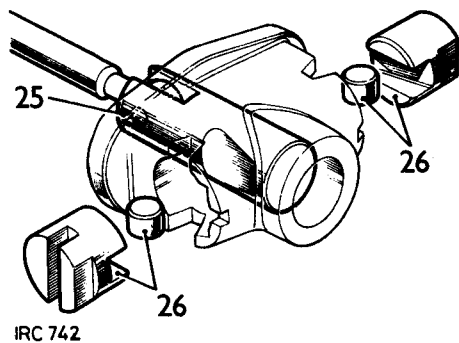


IRC 740



IRC 741

- 25 Grease and fit the expander rod.
- 26 Grease and fit the plungers and rollers.
- 27 Position the adjuster housing on the back plate.
- 28 Fit the packing piece.
- 29 Fit the locking plate.
- 30 Fit the retainer spring.
- 31 Fit the spring clip to the expander unit.
- 32 Fit the brake shoes and pull-off springs together.
- 33 The fully lined end of the lower shoe must be toward the expander housing.
- 34 The fully lined end of the upper shoe must be toward the adjuster housing.
- 35 Reverse instructions 2 to 5.
- 36 Turn the adjuster cone fully in and tighten the fixings.
- 37 Slacken off the adjuster cone two 'clicks'; give the brake a firm application to ensure that the shoes have centralised at the expander end. The brake drum should now be free to rotate.
- 38 Set the hand brake linkage at the vertical adjuster rod, so that the hand brake has one or two clicks free movement in the 'off' position.
- 39 Remove the road wheel chocks.



## SERVO ASSEMBLY

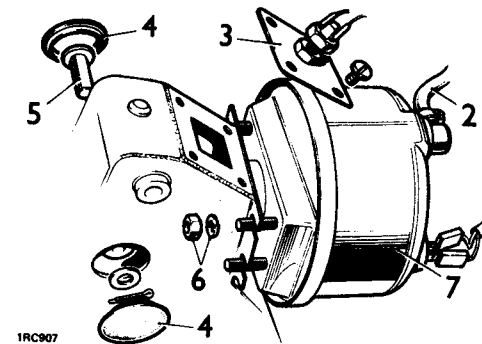
Remove and refit 70.50.01

### Removing

- 1 Remove the brake master cylinder. 70.30.01 or 70.30.08 as applicable.
- 2 Disconnect the vacuum hose from the servo assembly.
- 3 Remove the switch plate.
- 4 Remove the rubber plugs from the pedal box.
- 5 Remove the split pin and withdraw the clevis pin securing the servo rod to the pedal.
- 6 Remove the fixings.
- 7 Withdraw the servo assembly.

### Refitting

- 8 Reverse instructions 1 to 7. Torque load for servo fixings is 1,2 kgf. m. (9 lbf. ft.).



## VACUUM RESERVOIR TANK – Diesel models with Servo

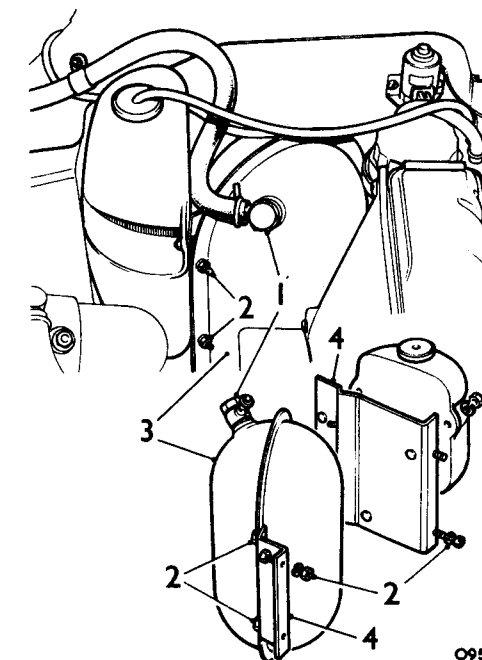
Remove and refit 70.50.04

### Removing

- 1 Remove the union bolt and washers securing the vacuum pipes to the vacuum tank.
- 2 Remove the bolts, washers and nuts securing the vacuum tank brackets to the vehicle.
- 3 Withdraw the vacuum tank and brackets from the vehicle.
- 4 Remove the brackets from the vacuum tank.

### Refitting

- 5 Reverse instructions 1 to 4.



## SERVO ASSEMBLY

Overhaul

70.50.06

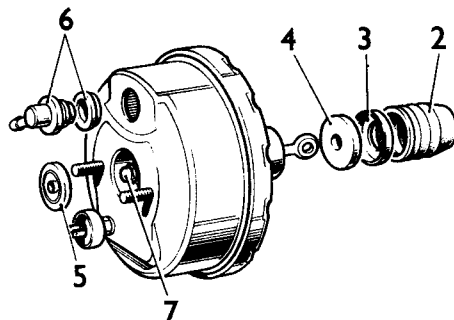
**NOTE:** The Supervac servo unit can be serviced, with a kit that is available, without completely dismantling the servo. In the event of the servo developing a major fault, the unit must be renewed.

### Dismantling

- 1 Remove the servo. 70.50.01.
- 2 Pull back the dust cover.
- 3 Remove the end cap.
- 4 Withdraw the filter.
- 5 Remove the seal and plate assembly from the front shell recess.
- 6 Remove the non-return valve and grommet.
- 7 **CAUTION:** Do not attempt to remove or adjust the operating rod which is pre-set and locked at the manufacturers.

### Reassembling (using the service kit)

- 8 Lubricate the non-return valve grommet with Girling Grease (64949009), and fit to the front shell.
- 9 Fit the new non-return valve into the grommet.
- 10 Smear the new seal and plate assembly with Girling Grease (64949008), and press into the front shell, ensuring the plate faces inwards.
- 11 Fit the new filter into the neck of the diaphragm plate.
- 12 Fit the new end cap.
- 13 Locate the new dust cover over the lugs of the rear shell.
- 14 Fit the servo. 70.50.01.



1RC908A

## WHEEL CYLINDER, 88 models

### Front wheel cylinder

- Remove and refit. Instructions 1 to 5 and 14 to 18 70.60.03  
Overhaul. Instructions 6 to 13 70.60.11

### Rear wheel cylinder

- Remove and refit. Instructions 1 to 5 and 14 to 18 70.60.18  
Overhaul. Instructions 6 to 13 70.60.26

### Removing

- 1 Remove the road wheel.
- 2 Remove the brake drum. 70.10.02.
- 3 Remove the brake shoes. 70.40.02.
- 4 Disconnect and seal the brake fluid pipe.
- 5 Remove the wheel cylinder.

### Dismantling

- 6 Withdraw the dust covers.
- 7 Withdraw the pistons and seals.
- 8 Withdraw the seal supports.
- 9 Withdraw the spring.
- 10 Remove the bleed screw.

### Inspecting

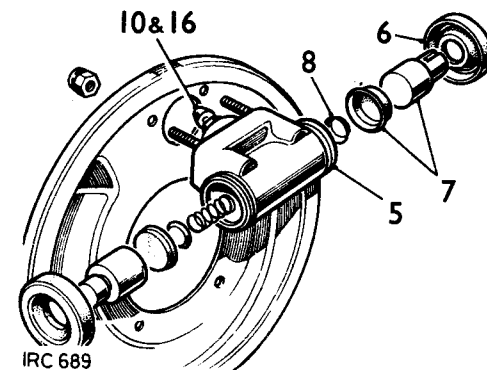
- 11 Clean all components, using Girling cleaning fluid, and allow to dry.
- 12 Inspect the cylinder bore and pistons for corrosion, scores and wear. If any component is not satisfactory, replace the complete wheel cylinder assembly.
- 13 Provide new seals and dust covers from the wheel cylinder overhaul kit.

### Assembly

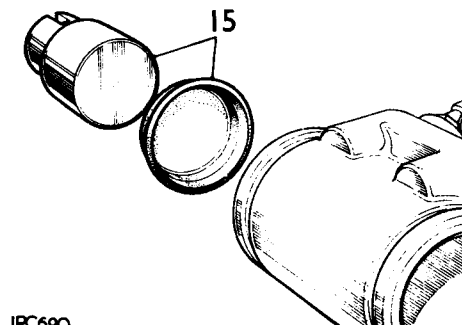
- 14 Lubricate the components, using the recommended Girling brake fluid.
- 15 Reverse 6 to 9. Fit the piston seal with the flat face toward the piston.
- 16 Fit the bleed screw, do not over-tighten. Torque 0,5 to 0,8 kgf. m. (4 to 6 lbf. ft.).

### Refitting

- 17 Reverse instructions 1 to 5.
- 18 Bleed the brakes. 70.25.02.



IRC 689



IRC 690

## FRONT WHEEL CYLINDERS – 109 models

Remove and refit. Instructions 1 to 5  
and 16 and 17 70.60.03  
Overhaul. Instructions 6 to 15 70.60.11

### Removing

- 1 Remove the road wheel.
- 2 Remove the brake drum. 70.10.02.
- 3 Remove the brake shoes. 70.40.02.
- 4 Disconnect and seal off the brake fluid pipe.
- 5 Remove the bleed screw (lower cylinder only).
- 6 Remove the wheel cylinder.

### Dismantling

- 7 Withdraw the dust cover.
- 8 Withdraw the piston and seal.
- 9 Withdraw the spring.

### Inspecting

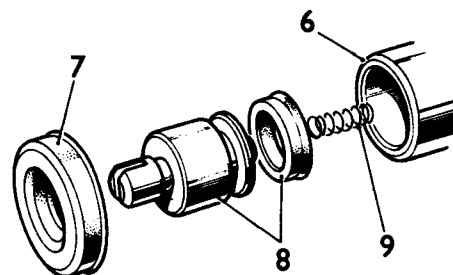
- 10 Clean all components, using Girling cleaning fluid, and allow to dry.
- 11 Inspect the cylinder bore and piston for corrosion, scores and wear. If any component is unsatisfactory, replace the wheel cylinder assembly complete.
- 12 Provide new seals and dust covers from the wheel cylinder overhaul kit.

### Assembling

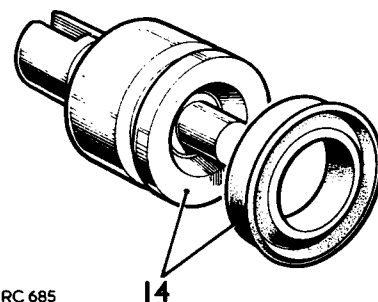
- 13 Lubricate the components, using the recommended Girling brake fluid.
- 14 Reverse instructions 6 to 8. Fit the piston seal with the lipped side away from the slotted end.
- 15 Fit the bleed screw, do not over-tighten. Torque 0,5 to 0,8 kgf. m. (4 to 6 lbf. ft.).

### Refitting

- 16 Reverse instructions 1 to 5.
- 17 Bleed the brakes. 70.25.02.



IRC 684A



IRC 685

## REAR WHEEL CYLINDER – 109 models

Remove and refit. Instructions 1 to 5  
and 16 and 17 70.60.18  
Overhaul. Instructions 6 to 15 70.60.26

### Removing

- 1 Remove the road wheel.
- 2 Remove the brake drum. 70.10.03.
- 3 Remove the brake shoes. 70.40.03.
- 4 Disconnect and seal off the brake fluid pipe.
- 5 Remove the wheel cylinder.

### Dismantling

- 6 Withdraw the dust covers.
- 7 Withdraw the pistons and seals.
- 8 Withdraw the spring and seal supports.
- 9 Remove the bleed screw.

### Inspecting

- 10 Clean all components, using Girling cleaning fluid, and allow to dry.
- 11 Inspect the cylinder bore and piston for corrosion, scores and wear. If any component is unsatisfactory, replace the wheel cylinder assembly complete.

### (109 models)

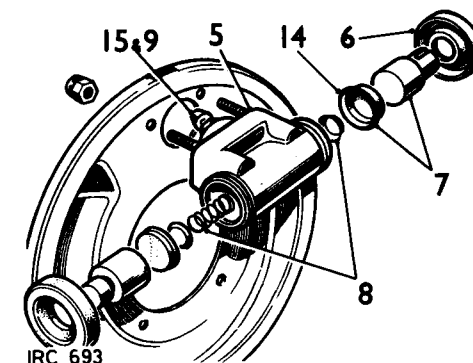
- 12 Provide new seals and dust covers from the wheel cylinder overhaul kit.

### Assembling

- 13 Lubricate the components, using the recommended Girling brake fluid.
- 14 Reverse 6 to 8. Fit the piston seal with the lipped side away from the slotted end.
- 15 Fit the bleed screw, do not over-tighten. Torque 0,5 to 0,8 kgf. m. (4 to 6 lbf. ft.).

### Refitting

- 16 Reverse instructions 1 to 5.
- 17 Bleed the brakes. 70.25.02.



IRC 693

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## WHEELS AND TYRES

### General

74.10.00

Tyres of correct type and dimension form an essential part of vehicle design. Regular tyre inspection and maintenance contributes not only to safety but also to the proper functioning of the vehicle. Road holding, steering and braking can be impaired by incorrect tyre pressure, badly fitted tyres and by worn treads.

Tyres of the same size but of different makes and tread patterns may possess widely varying characteristics. For this reason it is advised that tyres of the same make, type and tread pattern are fitted to all wheels. Tyres of different dimensions, even if paired, must never be fitted or transmission 'wind-up' on four wheel drive will occur. This will stress transmission components.

Where chevron tread type tyres are fitted the apex of the vee must lead in the direction of forward wheel rotation. Attention to this factor is necessary when interchanging wheels.

Refer to Section 04 for wheel and tyre data.

### Wheel nuts

Wheel nuts should be evenly tightened to 10,3 to 11,7 kgf m (75 to 85 lbf ft).

### Wheel tolerance

#### Lift

On a truly mounted and revolving wheel the difference between the high and low points measured at any location on either tyre seat should not exceed 2,30 mm (0.090 in.) maximum; 1,50 mm (0.060 in.) desired.

#### Wobble

The lateral variation measured on the vertical inside face of a flange should not exceed 2,30 mm (0.090 in.) maximum; 1,50 mm (0.060 in.) desired.