

**ARMY  
CODE No  
22376**

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# **TRAILER, 3/4 TON, 2 WH, SANKEY**

**ARMY VEHICLE CODE No 2855-0'90**

## **TECHNICAL HANDBOOK**

**PRODUCED TO THE REQUIREMENT OF  
THE MINISTRY OF DEFENCE**

**BY DIRECTOR OF QUALITY ASSURANCE  
(FIGHTING VEHICLES AND ENGINEER EQUIPMENT)**

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AMENDMENT RECORD SHEET

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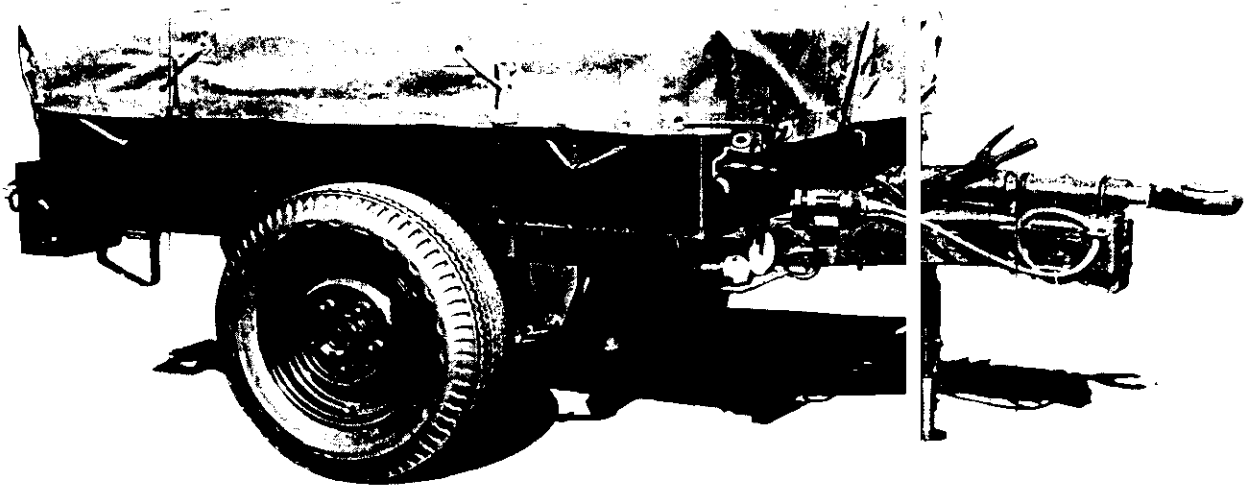
**TRAILER, CARGO, ¼ TON, 2WH, F.V.2361**

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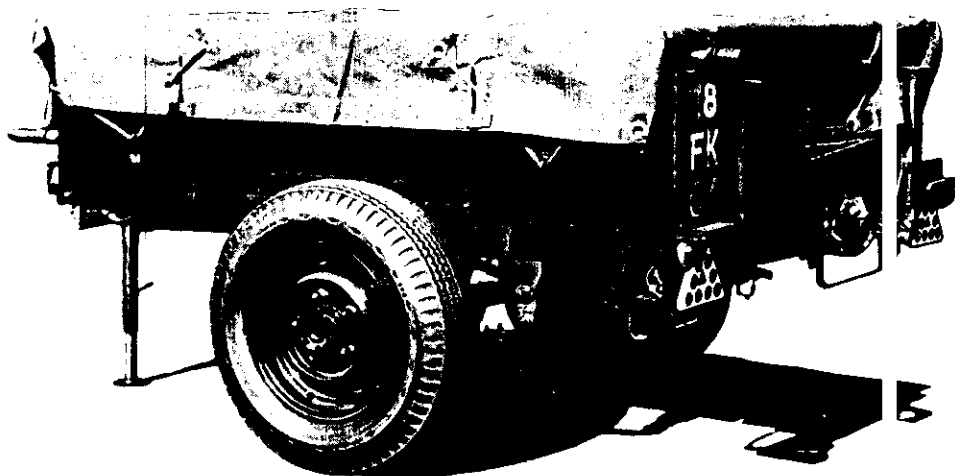
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Three-quarter front view of Trailer FV 2361



Three-quarter rear view of Trailer FV 2361

## TECHNICAL DESCRIPTION

### LEADING PARTICULARS

Overall length	2.83 m (9 ft 7¼ inches)
Overall width	1.41 m (4 ft 7½ inches)
Height (laden)	1.08 m (3 ft 6½ inches)
Weight (unladen)	357.4 kg (788 lb)
Wheel track	1.21 m (3 ft 11¾ inches)
Tyre size	0.165 x 0.406 m (6.50 x 16.0 inches)

### INTRODUCTION

1. This chapter describes the Cargo Trailer (FV2361) which has a metal body with fixed sides and is capable of carrying loads of up to 0.76 tonnes (¾ ton) and being towed by a truck ¼ ton C.L. or 1 ton G.S. at speeds up to 72.4 km/h (45 mile/h).

### GENERAL

2. The chassis and drawbar frames are of integral construction, and suspension is by means of a pair of semi-elliptic springs carrying the tubular axle and damped by tubular shock absorbers. Service braking is by means of an over-run unit operating through a mechanical linkage to the brakes. A hand operated lever is fitted for parking purposes and also utilizes this linkage. These support legs are fitted and the electrical system is 24 volt. The body is removable as a complete unit.

### DRAUGHT EYE AND OVERRIDE MECHANISM

3. The draught eye is mounted on top of the forward end of the drawbar and consists of a spring loaded draught eye and shaft (Fig. 2 (1)) operating in two bushes (19 and 21), which are mounted in a bracket assembly (5). The bracket assembly is charged with grease through a nipple (4) and 'O' rings (18 and 22) in the bushes and a wiper (2) in the cap (3) prevent leakage.

4. The override mechanism functions so that, when the towing vehicle's brakes are applied, the trailer tends to override and the draught eye is forced to the rear, compressing the spring. The machined bolt bears against the pressure pad of the brake mechanism (paragraph 6) forcing it to the rear and causing the brakes to be applied. When the drive is again taken up the shaft is drawn forward and the brakes are released.

5. A reversing stop (20), normally slotted in a clip on the left hand side of the drawbar and attached to the trailer by a chain, must be positioned over the exposed part of the draught eye shaft to lock the mechanism when reversing the trailer.

6. The handbrake mechanism is mounted in a bracket (Fig. 3 (8)) which is bolted to the drawbar. The hand lever (15) and brake lever (10) pivot on a shaft. When the handbrake is applied, a pawl (19), connected by an adjustable spring loaded link (16) to a release lever (14) on the hand lever (15), locates in quadrant teeth (12) to retain the brake in the 'on' position.

7. In addition to the manual operation, provision is made for the brakes to be applied automatically by action of the override arrangement incorporated in the draught eye. The brake lever (10) in the handbrake assembly is connected at its bottom end by means of a spring loaded rod (27) to the brake linkage. The brake lever moves independently of the hand lever when the brakes are applied by the override mechanism. The pressure pad at the top of the brake lever when pushed back by the machined bolt (11) in the end of the draught eye shaft, pivots the lever, drawing the spring loaded rod (27) forward compressing the spring (28) and so applying the brakes.

8. When the prime mover draws on, the machined bolt (11) moves forward clear of the pressure pad and the spring (28) returns the brake mechanism to the released position.

9. The brake linkage consists entirely of rods with fork ends, links and levers. The spring loaded rod (27) is connected by fork ends to the brake lever (10) and the relay lever (7). From the relay lever, a second rod runs back to the compensating lever (4) from which a rod runs out to each brake unit.

### SUSPENSION

10. The suspension consists of one pair of longitudinally situated semi-elliptic springs (Fig. 4 (25)) mounted to the shackle eyes on 'silent bloc' type rubber bonded bushes. Aeon rubber springs (11) check upward movement and steel wire check straps (7) restrict downward movement of the axle. Damping is by telescopic shock absorbers (20) and the axle (32), which is carried above the springs, is tubular with solid ends.

## HUBS AND BRAKES

11. The hubs (Fig. 5) are secured to the axle by two nuts (22) locked by a tab washer. Each hub is fitted with two caged, taper roller journal bearings (23 & 24), the rear bearing inner race having a greater internal diameter than the front.

12. The hubs are greased from a nipple (2) situated on the back plate mounting flange, and an oil seal (9) behind the rear bearing and a leather seal (26) in conjunction with the oil catcher (25) prevents grease penetrating to the brake unit. The hub cap is retained by set pins (19) and the brake drum located by three counter sunk screws (15).

## ELECTRICAL EQUIPMENT

13. The rearward facing lights are mounted on panels at each corner of the body. The lights consist of two combined tail and stop lamps, left and right turn indicators and a number plate lamp. A reflector is also mounted on each panel and a convoy light under the chassis.

14. In addition to the rear lights, forward facing side lamps and reflectors are mounted on brackets fitted to the front bottom edge of the body. The lighting circuit is illustrated in Fig. 8.

## SERVICING AND REPAIR INSTRUCTIONS

15. The following notes describe the removal, dismantling and replacement of sub-assemblies.

### BODY

16. The body may be removed from the chassis as a complete unit by unscrewing the lock nuts and nuts on the ten hooks which are situated under the body floor, four along each side and two along the centre. (Fig. 1.).

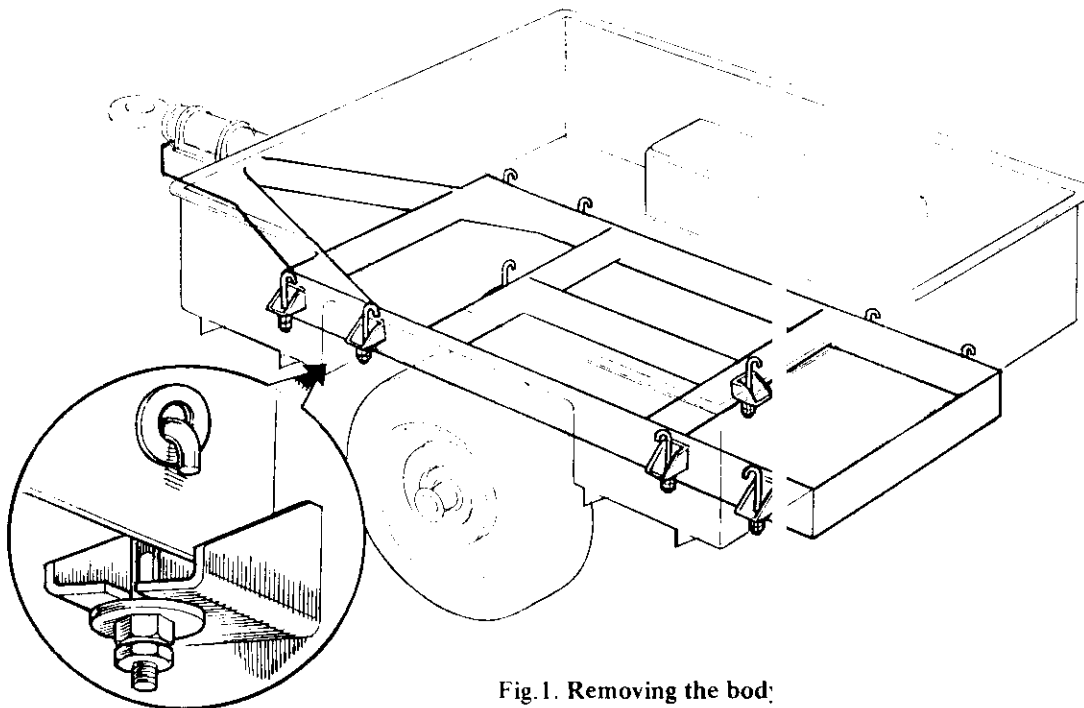


Fig. 1. Removing the body.

## DRAUGHT EYE AND OVERRIDE MECHANISM

17. The draught eye (Fig. 2.) should be examined and lubricated at regular intervals as follows:
- Clean off old grease and examine the exposed part of the shaft for scoring, corrosion and straightness. A damaged shaft must be renewed as detailed in (paragraph 18).
  - Apply two strokes of a grease gun to the nipple (4).
  - Apply a coating of grease to the exposed part of the shaft.

### To dismantle the draught eye

18. To dismantle the draught eye proceed as follows:-
- The draught eye may be dismantled in position on the trailer, or removed to the work-bench, by removing the six long bolts which run vertically through the drawbar.
  - In order to relieve the spring (12) pressure inside the draught eye cover (9), unscrew the two nuts (7) along the long studs (8) evenly, and remove the cover.
  - Drive out the pin (13) and remove the nut (14) from the draught eye shaft, followed by the washer (15), pad (16) and washer (17). The draught eye may then be withdrawn from the housing.
  - If the bushes (19 and 21) are in need of replacement, the rear bush (19) may be pressed or driven out, but before the front bush can be removed the tab on the tab washer (23) must be turned back and the cap (3) removed with the aid of a 'C' spanner, or a drift if a spanner is not available.

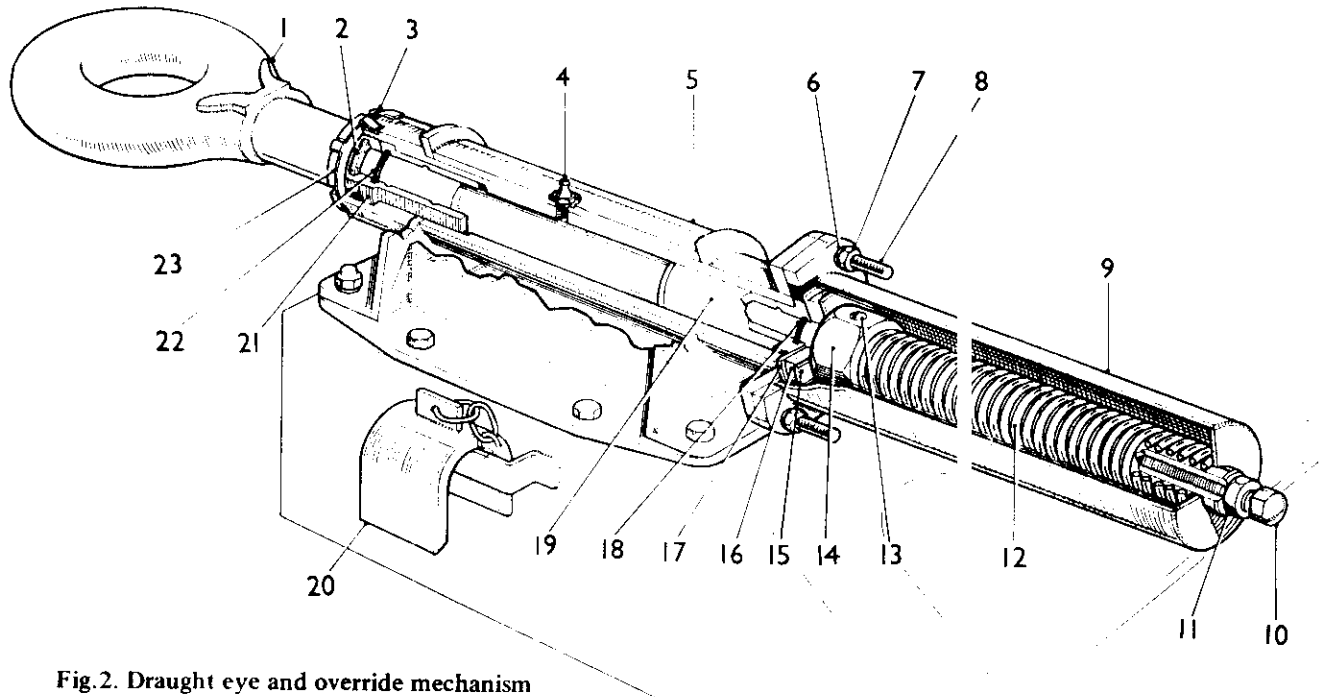


Fig. 2. Draught eye and override mechanism

- |                     |                    |
|---------------------|--------------------|
| 1. Draught eye      | 13. Pin            |
| 2. Wiper            | 14. Nut            |
| 3. Cap nut          | 15. Washer         |
| 4. Greaser          | 16. Pad            |
| 5. Bracket assembly | 17. Washer         |
| 6. Spring washer    | 18. 'O' ring       |
| 7. Nut              | 19. Bush           |
| 8. Stud             | 20. Reversing stop |
| 9. Cover            | 21. Bush           |
| 10. Machined nut    | 22. 'O' ring       |
| 11. Lock nut        | 23. Tab washer     |
| 12. Spring          |                    |

### To assemble the draught eye

19. Clean and examine all parts for wear and damage. Fit new 'O' rings (18 and 22) to the internal grooves in the bushes and a new felt wiper (2) to the internal groove in the cap (3). A new tab washer (23) will also be required. Assembly may then proceed as follows:-



- a. Press both bushes into the bracket assembly (5).
- b. Lay the specified grease inside the bracket assembly in the area between the bushes.
- c. Smear the draught eye with grease and insert into the bracket assembly, taking care not to damage the wiper, 'O' rings or bushes.
- d. Slide the washer (17), pad (16) and washer (15) over the end of the shaft and butt them against the rear bush.
- e. Screw onto the rear external threads of the shaft the large nut (14). Screw on until the hole through the nut lines up with the hole in the shaft and lock into position by driving in a new pin.
- f. Secure the bracket assembly in a vertical position with the draught eye pointing downwards and fully extended.
- g. Place the spring (12) concentrically over the shaft followed by the cover. Fit the two spring washers and nuts, and tighten down evenly.
- h. Apply the grease gun to the nipple (4), and fit the unit to the drawbar with the six bolts if it has been removed.
- j. Check clearance at the machined bolt. (Refer to paragraphs 28 and 29).

### **BRAKE MECHANISM**

**20.** Check the handbrake mechanism (Fig.3) periodically, as follows:-

- a. Check by operation for correct functioning. The brakes should be fully applied when the pawl (19) is at the approximate centre of the quadrant teeth (12).
- b. Lubricate all pivot pins.
- c. Apply a smear of grease to all exposed springs connecting links and jaws.

#### **To remove the handbrake assembly**

**21.** Proceed as follows:-

- a. Remove the clevis pin securing the jaw of the spring loaded rod (27) to the brake lever (10).
- b. Remove the six nuts and bolts from the bracket (8) and lower the handbrake bracket assembly out of the chassis, taking care not to bend the spring loaded rod.

#### **To dismantle the handbrake**

**22.** If excessive play develops at the brake lever (10 and 15) pivots, dismantle as follows:-

- a. Remove the locking plug (21) from the right hand boss on the bracket (8). Withdraw the shaft (22) and lift out the levers complete with dust cover (24).
- b. Examine the condition of the shaft and lever bushes (9 and 23) and replace if necessary.
- c. Examine the quadrant (12) and pawl (19) for wear or damage.
- d. To remove the quadrant, take off the two nuts and spring washers on the outside face of the bracket, remove the quadrant and take off the two large nuts (20) and the bolts ready to fit to the new quadrant.
- e. To remove the pawl (19) remove the split cotter pin from the springloaded link (16) and the lock nut from the pawl pin (18), unscrew the pawl pin and remove the plain washer and pawl.

#### **To assemble the handbrake**

**23.** Having checked the renewed parts as necessary, the handbrake may be assembled:-

- a. If the pawl has been removed, replace with the plain washer against the shoulder of the pawl pin, and the plain washer (17) behind the split cotter pin on the spring loaded link.
- b. If the quadrant has been replaced, fit the two bolts with heads on the handbrake stop side, secure with the large nuts (20) and fasten to the inside face of the bracket with spring washers and nuts.
- c. Assemble the handbrake lever (15), a new dust cover (24) and the brake lever (10). Place the assembly in the bracket in line with the bosses, insert the shaft (22) and secure with the locking plug (21).

#### **To replace the handbrake assembly**

**24.** Proceed as follows:-

- a. Secure the handbrake assembly to the chassis with the six nuts bolts and spring washers.
- b. Fit the rod (27) to the lever (10) with the pin (25), not forgetting the double coil washer (26) between the jaw and the lever, and secure with split cotter pins.
- c. Check clearance between machined nut (11) and pressure pad (15). (Refer to paragraphs 28 and 29).

### **To check brake linkage**

25. Replace worn bushes in relay lever or compensating lever, worn fulcrum pins or fork ends or knuckle joint having oval pin holes. Be sure to fit a 7.93mm (5/16") double coil washer between each fork end and knuckle joint.

26. Check that the compression of the spring (28) is correct, by measuring the distance from the fork end pin centre to the spring stop bolt (29) centre. This should be 273mm (10.75").

27. If any dismantling has taken place the clearance between the machined nut and pressure pad must be checked. (Refer to paragraphs 27 and 29).

### **Brake adjustment**

28. To adjust the brake shoes proceed as follows:-

- a. Jack up the wheel clear of the ground.
- b. With the spanner applied to the squared end of the adjuster stem on the brake back plate, turn it in a clockwise direction until the shoes are locked in the drum.
- c. 'Click back' until the wheel begins to revolve freely.
- d. Repeat for the other wheel.

29. The clearance between the machined bolt (Fig.3(11)) and the pressure pad must then be checked. With the handbrake fully applied, use the reversing stop gauge and rectify any discrepancy by slackening the lock nut on the machined bolt, and rotating the bolt in the appropriate direction. Hold in position with a spanner and tighten the locknut. Finally check with the gauge.

NOTE: Do not attempt to adjust the brake shoes by means of the brake linkage.

### **SUSPENSION**

30. Periodically examine the suspension as follows:-

- a. Clean and examine the shock absorbers, shackles, aeon springs, check straps and spring leaves.

### **To dismantle the suspension**

31. Proceed as follows:-

- a. Place jacks under the corners of the chassis frame, slacken wheel nuts, raise trailer until wheels are clear of the ground and remove the wheels.
- b. If necessary, dismantle the hubs and brake units as described in paragraph 38. (Protect the threads on the stub axles by screwing on the hub nuts.)
- c. Remove the telescopic shock absorbers (Fig.4 (20)) and axle check cables (7).
- d. Disconnect the brake linkage by removing the pin from the knuckle joint (3) and rear rod fork (2).
- e. Remove the axle 'U' bolts (30) and clamp plates (29) and, whilst supporting the weight of the axle (32) and springs (25), remove the bottom rear shackle pin from each spring.
- f. Lower the rear ends of the springs to the ground and lift out the axle assembly. Remove the remaining four shackle pins to free the springs and shackles.
- g. If due to damage or deterioration the rubber springs (11) has to be removed, it must be detached from the chassis by removing the two nut washers and bolts (10) in the spring plate (8). The rubber spring may then be separated from the plate by removing the single central counter sunk headed bolt (9) and nyloc nut.

32. Clean and examine all parts for wear and damage. See that the rubber springs, the check cable dampers (6) and the rubber bonded spring bushes are in good condition, the spring leaves are not broken or 'stepped', and all threads are undamaged. Examine also the brake linkage mounted on the axle beam. (Refer to paragraph 25).

### **To replace a leaf spring**

33. Support the chassis frame on the appropriate side without disturbing the road wheels and proceed as follows:-

- a. Remove lock nuts (27), nuts (28) and 'U' bolts (30). Leave clamp plate (29) attached to the telescopic shock absorber.
- b. Withdraw the front and rear shackle pins and remove the spring.
- c. Replace in the reverse order, seeing that the head of the central bolt (30) is seated in the dowel hole in the axle spring bed.

### **To overhaul a leaf spring**

34. Proceed as follows:-

- a. Remove all leaf clamp nuts (23), spacers (22) and bolts (21), and the centre bolt (31).
- b. Clean and examine each leaf for cracks or wear and smear with Graj hite grease. See that the 'silent bloc' bushes are a tight fit in the main leaf.
- c. Reassemble with the centre bolt first, followed by the clamp bolts and spacers.

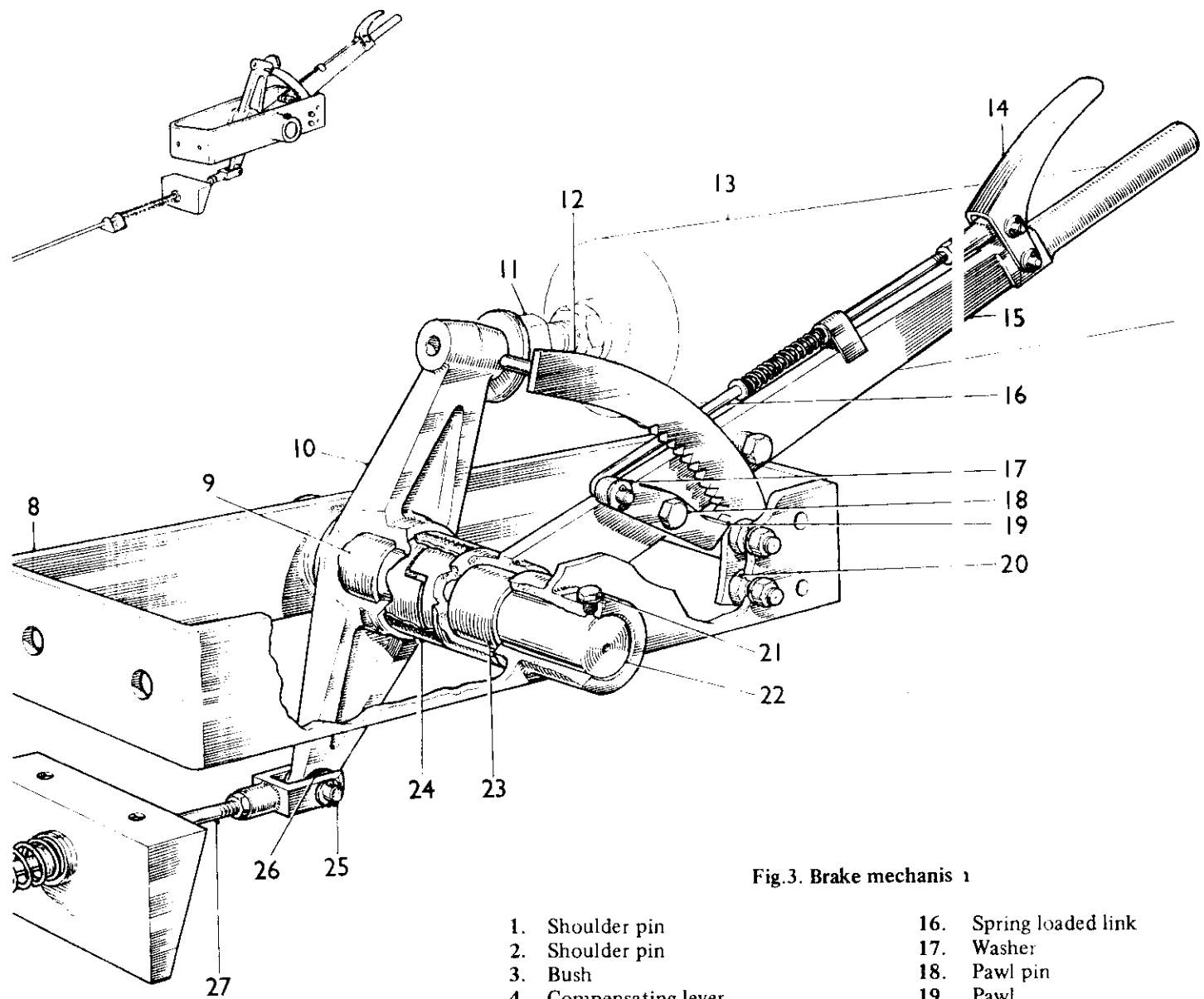
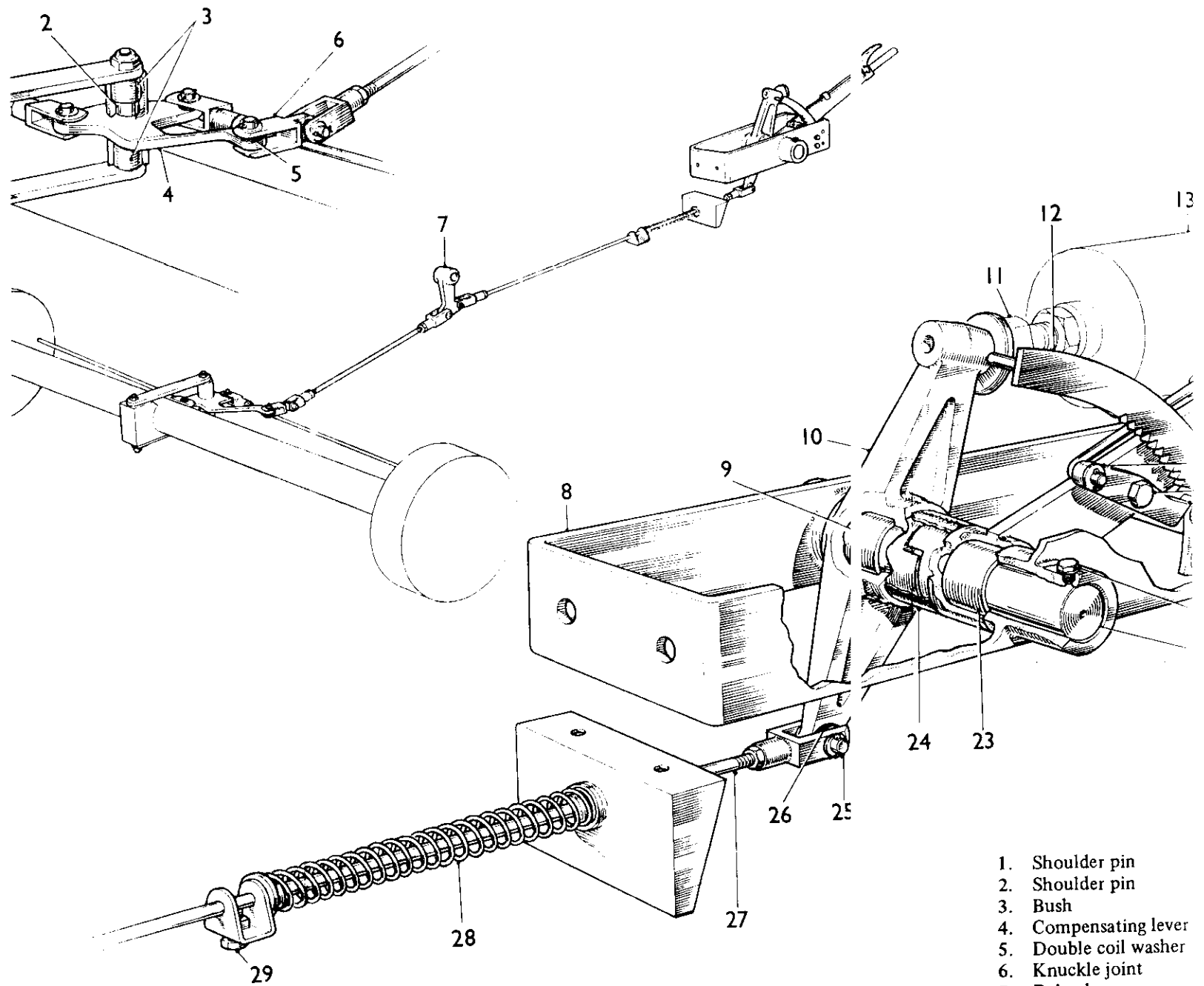
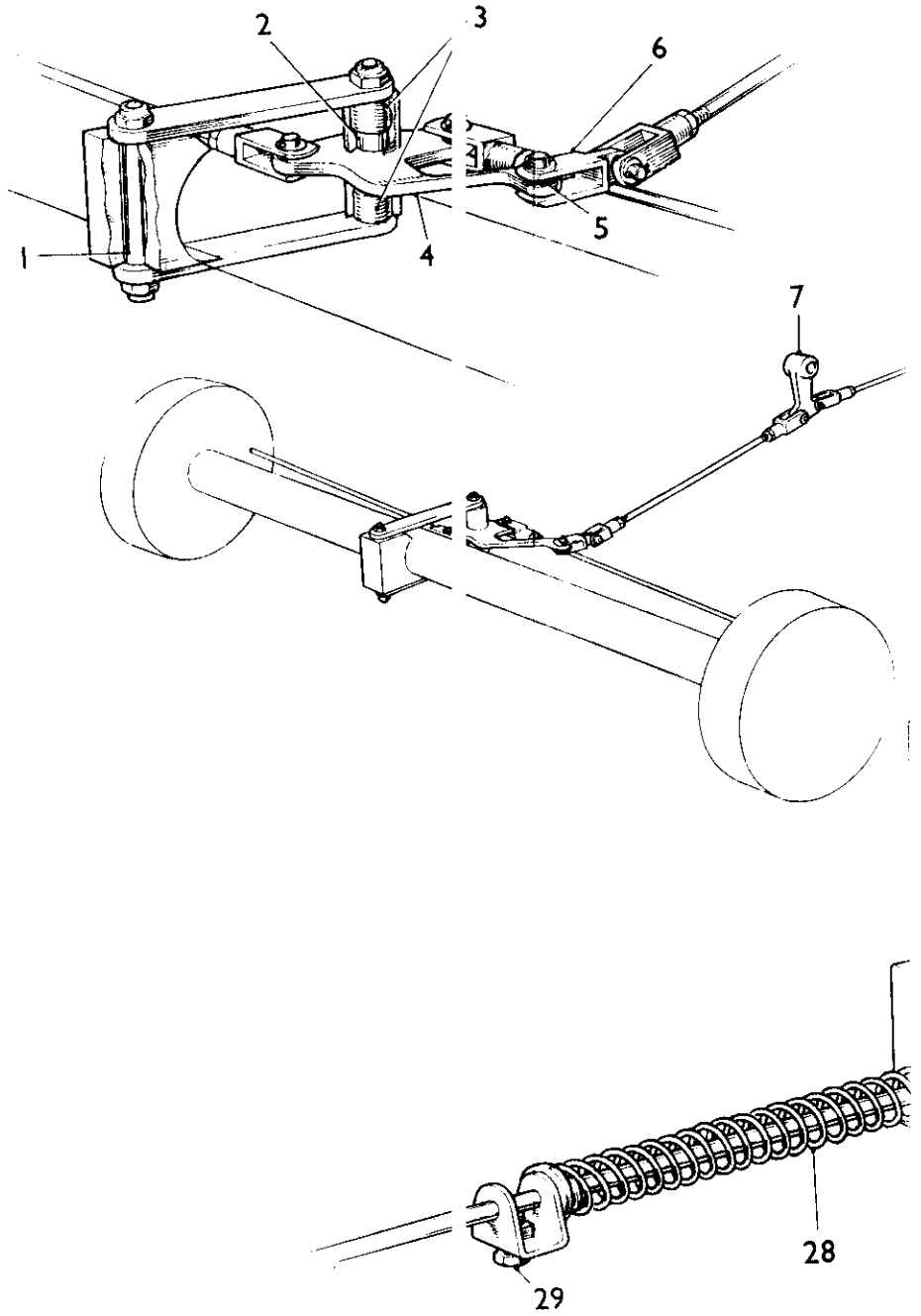


Fig.3. Brake mechanism

- |  |                        |
|--|------------------------|
| 1. Shoulder pin                        | 16. Spring loaded link |
| 2. Shoulder pin                        | 17. Washer             |
| 3. Bush                                | 18. Pawl pin           |
| 4. Compensating lever                  | 19. Pawl               |
| 5. Double coil washer                  | 20. Large nut          |
| 6. Knuckle joint                       | 21. Locking plug       |
| 7. Relay lever                         | 22. Shaft              |
| 8. Bracket                             | 23. Bush               |
| 9. Bush                                | 24. Dust cover         |
| 10. Brake lever                        | 25. Clevis pin         |
| 11. Machined bolt                      | 26. Double coil washer |
| 12. Quadrant                           | 27. Spring loaded rod  |
| 13. Draught eye and override mechanism | 28. Spring             |
| 14. Release lever                      | 29. Spring stop        |
| 15. Hand lever                         |                        |



1. Shoulder pin
2. Shoulder pin
3. Bush
4. Compensating lever
5. Double coil washer
6. Knuckle joint
7. Relay lever
8. Bracket
9. Bush
10. Brake lever
11. Machined bolt
12. Quadrant
13. Draught eye and oval
14. Release lever
15. Hand lever



(AL 16 November 71)

**To reassemble the suspension**

35. With all parts checked and replaced where necessary, proceed to assemble as follows:-

- a. Fit the rubber spring if this has been removed, then attach both leaf springs to the front mountings with shackle pins.
  - b. Position the axle beam on the springs with the dowel holes in the spring bed over the spring centre bolt heads, and secure with the 'U' bolts and clamp plates. See that the shock absorber pivots are to the rear of the axle and facing inwards, and that the 'U' bolts are finally secured with lock nuts (27).
  - c. If the rubber spring locating cups (12) have been removed from the axle, replace them. Fit the spring shackles to the chassis brackets, swing the springs up into position and secure with the shackle pins.
  - d. Having checked that the shock absorbers are in sound condition and the pivot bushes in good order, fit them to the pivot with large plain washers either side of each bush, and secure with a plain nut and a lock nut to each pivot pin.
  - e. Connect up the brake linkage and, if applicable, assemble the hub and brake units. (Refer to paragraph 38).
- NOTE: Check the brake adjustment. (Refer to paragraphs 27 and 28).
- f. Fit the wheels and tighten wheel nuts in correct sequence, remove the jacks.

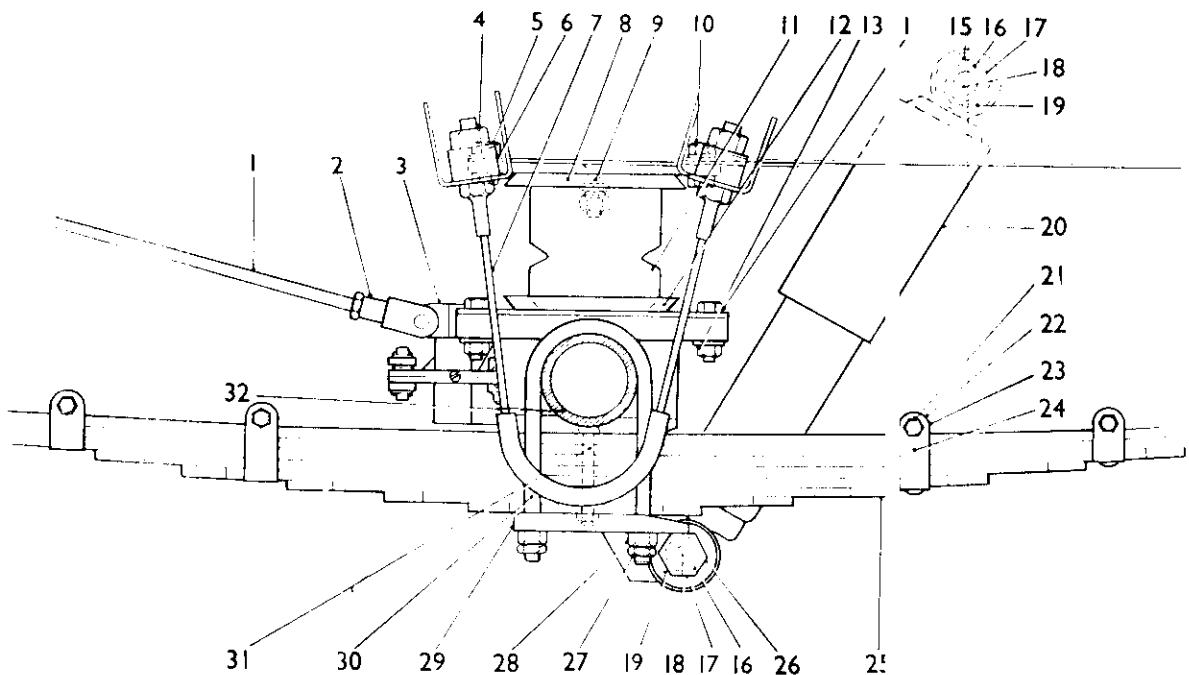


Fig.4. Suspension

- |                        |                                |                                |
|------------------------|--------------------------------|--------------------------------|
| 1. Rear brake rod      | 12. Rubber spring locating cup | 23. Nut                        |
| 2. Fork end            | 13. Locating cup nut           | 24. Clamp                      |
| 3. Knuckle joint       | 14. Locating cup bolt          | 25. Road spring                |
| 4. Check cable nut     | 15. Shock absorber nut         | 26. Pivot pin                  |
| 5. Plain washer        | 16. Lock nut                   | 27. 'U' bolt lock nut          |
| 6. Check cable damper  | 17. Washer                     | 28. Nut                        |
| 7. Check cable         | 18. Shock absorber pivot pin   | 29. Clamp plate pivot assembly |
| 8. Rubber spring plate | 19. Bush                       | 30. 'U' bolt                   |
| 9. Counter sunk bolt   | 20. Shock absorber             | 31. Road spring central bolt   |
| 10. Spring plate bolt  | 21. Spring clamp bolt          | 32. Axle                       |
| 11. Rubber spring      | 22. Spacer                     |                                |

**TYRES**

36. When checking the tyres observe the following:-

- a. Examine the walls of the tyres for cracks and bulging.
- b. Remove any sharp flints or other objects found embedded in the tread.
- c. Adjust tyre pressure to the recommended figure.
- d. Ensure the valve caps are fitted.

## HUBS AND BRAKES

37. Periodically remove the wheels and hubs and pack the bearings with grease (See Servicing Schedule).

### To dismantle a hub and brake unit

38. To dismantle a hub and brake, proceed as follows:-

- a. Jack up the appropriate side and remove the wheel.
- b. Unscrew the three countersunk set screws (Fig.5 (15) ), and remove the brake drum. (Slacken off shoes with brake adjuster (7) if necessary.)
- c. Remove hub cap (18) which is attached to the hub by six set pins (19) and lock washers.
- d. Knock back the tab washer (17), remove the two nuts (22) using the correct spanners and washer (16), and withdraw the hub and bearings.
- e. Remove the baffle plate (11), oil seal (9) and seal support ring (10).
- f. Fully slacken the brake adjuster (7), then disconnect the springs and remove the brake shoes.
- g. Slacken the locknuts (34) either side of the long coupling nut (33), and unscrew the coupling nut fully until the brake rod is free of the brake operating unit.
- h. Remove the six nuts (3) washers and bolts, securing the oil catcher with leather oil seal, its joint washer and the brake back plate to the stub axle flange. Remove these items from the axle.
- i. Remove the two split pins from the bisector, and extract the plungers (29) and rollers (28).
- k. Remove the two nuts, spring washers and retaining plates, and pull out the operating rod (32) complete with dirt excluder (1) and release piston (31).
- l. Detach the bisector housing and packing piece (30).
- m. Remove the two bolts and spring washers and detach the adjuster (7) by screwing in a clockwise direction through the body.

### To assemble a hub and brake

39. Proceed as follows:-

- a. Ensure that all parts of the brake assembly are clean and free from dirt and grease.
- b. Screw the adjuster (7) into the adjuster housing.
- c. Wipe the adjusting plungers (29) with an oily rag, remove all traces of surplus oil, then insert them into the adjuster housing.
- d. Fit the adjuster into the back plate and secure with the bolts and spring washers.
- e. Fit the release piston and operating rod (32), rollers (28) and plungers (29) to the bisector housing, first wiping all parts with a lightly oiled rag. Secure the plungers with split pins.
- f. Fit the bisector and packing piece (30) to the backplate.
- g. Position the dirt excluder (1) on the operating rod (32) and connect the rod to the release piston.
- h. Fit the retainer plates and secure with the nuts and spring washers, do not overtighten, the bisector must be free to move in the backplate.
- i. Replace the leather oil seal (26) and smear liberally with oil, if there is any doubt about the condition of the original one in the oil catcher (25), and assemble the oil catcher, joint washer (27) and brake backplate to axle flange.
- j. Connect up the operating rod to the brake linkage, with the brake shoes in the 'off' position, secure the long coupling nut with the two lock nuts.
- k. Fit seal support ring (10) against axle shoulder, and fit a new seal if necessary over the support ring, followed by the baffle plate (11).
- l. Assemble the bearings (24 and 23) into the hub (13), the bearing having the larger internal diameter being positioned nearest to the brake backplate, (4), pack the hub with grease and assemble the hub to the stub axle, taking care not to damage or disturb either oil seals.
- m. Fit the keyed washer (16) and the rear retaining nut (22), tightening the nut to eliminate all play in the hub but allowing it to rotate freely.
- n. Fit the tab washer (17) and front retaining nut (22) and tighten, using the correct spanner, bending over the washer to lock both nuts.
- o. Replace the hub cap.
- p. Fit the brake shoes and springs, ensuring that the friction linings are serviceable and free from oil or grease.
- q. Fit the brake drum and secure with the three counter-sunk screws (15).
- r. Adjust the brakes as described in paragraphs 28 and 29.

Fig.5. Hubs and brakes

- |                              |                        |
|------------------------------|------------------------|
| 1. Dirt excluder             | 18. Hub cap            |
| 2. Grease nipple             | 19. Set pin            |
| 3. Nut                       | 20. Lock washer        |
| 4. Brake back plate          | 21. Wheel nut          |
| 5. Brake shoe                | 22. Hub retaining nut  |
| 6. Adjuster plunger          | 23. Hub bearing        |
| 7. Adjuster                  | 24. Hub bearing        |
| 8. Back plate retaining bolt | 25. Oil catcher        |
| 9. Oil seal                  | 26. Leather oil seal   |
| 10. Oil seal support ring    | 27. Joint washer       |
| 11. Baffle plate             | 28. Roller             |
| 12. Wheel stud               | 29. Plunger            |
| 13. Hub                      | 30. Packing piece      |
| 14. Brake drum               | 31. Release piston     |
| 15. Drum locating screw      | 32. Operating roller   |
| 16. Keyed washer             | 33. Brake coupling nut |
| 17. Tab washer               | 34. Lock nuts          |

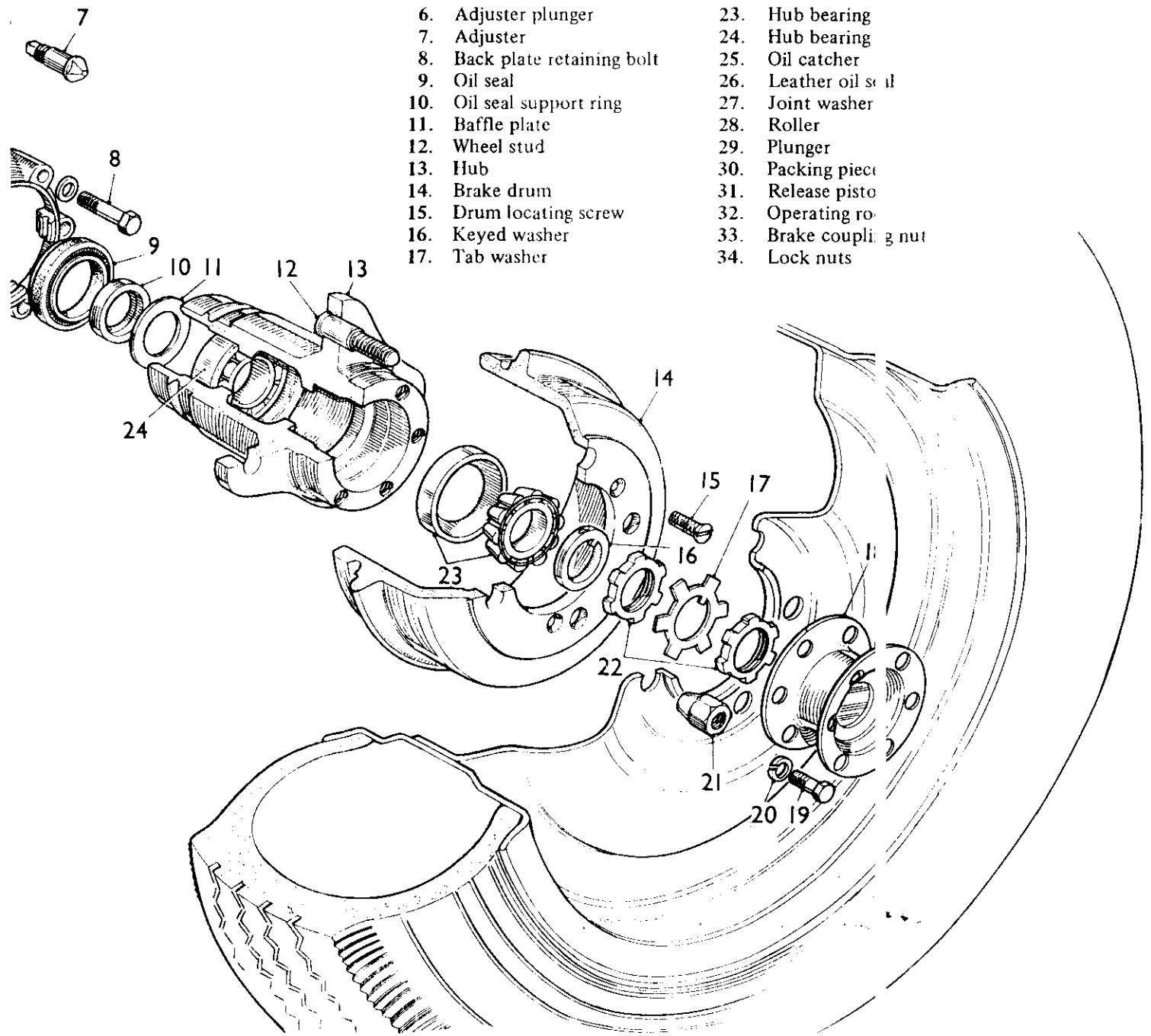
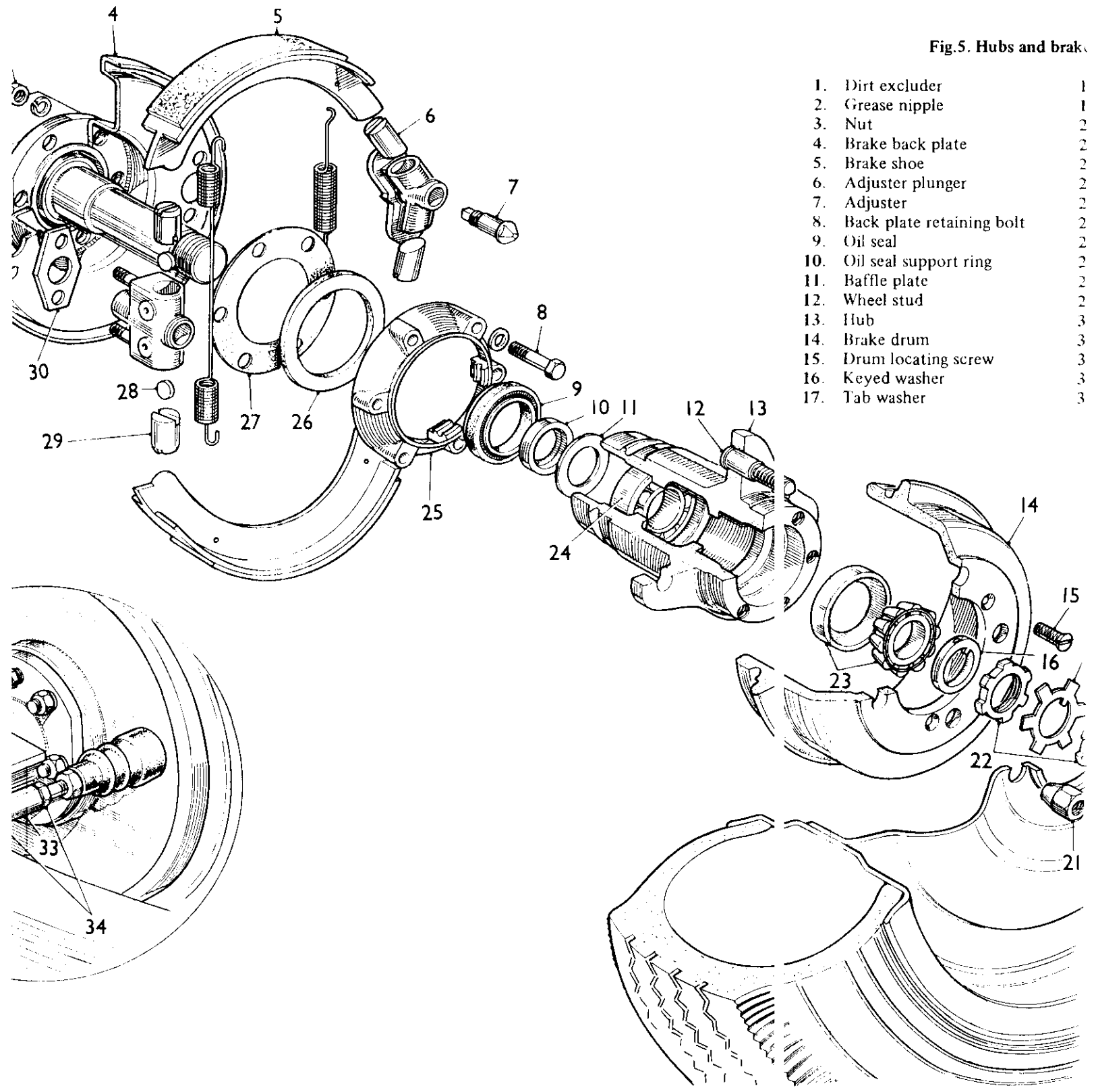
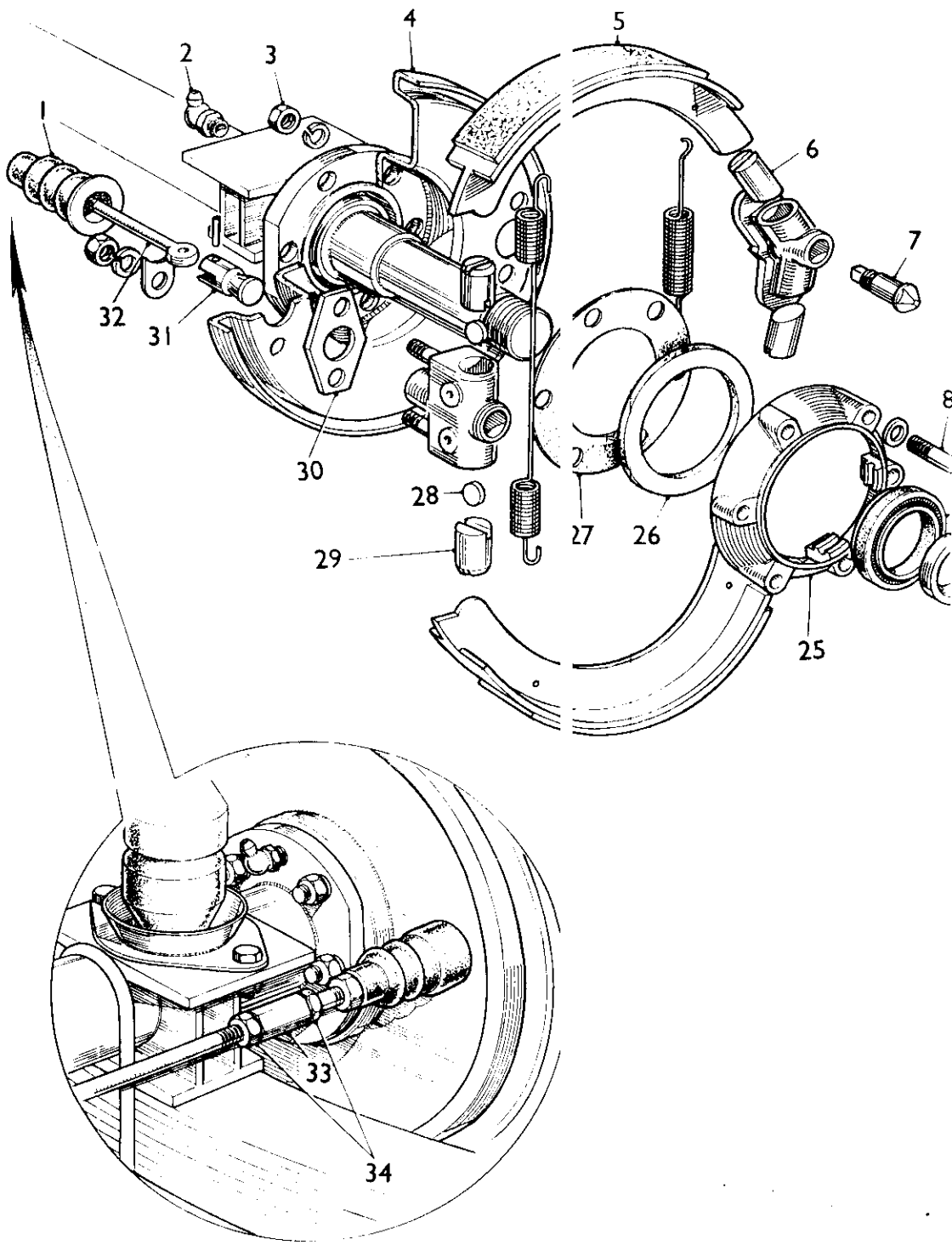




Fig.5. Hubs and brakes

- |     |                           |   |
|-----|---------------------------|---|
| 1.  | Dirt excluder             | 1 |
| 2.  | Grease nipple             | 1 |
| 3.  | Nut                       | 2 |
| 4.  | Brake back plate          | 2 |
| 5.  | Brake shoe                | 2 |
| 6.  | Adjuster plunger          | 2 |
| 7.  | Adjuster                  | 2 |
| 8.  | Back plate retaining bolt | 2 |
| 9.  | Oil seal                  | 2 |
| 10. | Oil seal support ring     | 2 |
| 11. | Baffle plate              | 2 |
| 12. | Wheel stud                | 2 |
| 13. | Hub                       | 3 |
| 14. | Brake drum                | 3 |
| 15. | Drum locating screw       | 3 |
| 16. | Keyed washer              | 3 |
| 17. | Tab washer                | 3 |





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**SUPPORT LEGS**

- 40. To ensure correct operation of the jacks proceed as follows:-
  - a. Clean and check for freedom of operation throughout the extension range, and the brackets for security.
  - b. Apply the specified lubricant to the sliding portions and to the locking pins.

**ELECTRICAL EQUIPMENT**

- 41. The 24 volt electrical system is supplied and controlled from the towing vehicle by way of a plug at the end of a flexible cable on the trailer for socket connection to the towing vehicle.
- 42. To ensure serviceability of the equipment, check the following details:-
  - a. Connecting leads, for security of plugs and deterioration of cable.
  - b. The trailer plug for damage and security.
  - c. Lights for security and cleanliness and lamps for operation; also the light lens's and reflectors for cleanliness.
  - d. Earth points for cleanliness. See that they are smeared with petroleum jelly or the approved equivalent.

**Convoy and registration plate lights (Fig.6)**

43. These two lights are similar. For lamp renewal the bayonet type lamp holder is removed by unscrewing the locking ring (10) immediately behind the mounting plate. When replacing the lamp-holder, care must be taken to ensure correct location of the front rubber mounting (5).

**Side and turn lights (Fig.7)**

44. To gain access to the lamp of these lights, the lens must be unscrewed from the mounting plate. After replacing a lamp, ensure that the lens is screwed firmly into position.

**Tail/Stop light**

45. To gain access to the lamp of the tail/stop light, the lens must be unscrewed from the mounting plate. This is similar to (Fig.7), except that the lamp is a double contact index pin type and can be inserted in one position only. Ensure that the lens is screwed firmly into position after lamp replacement.

**Caution:**

46. If the towing vehicle has a 12 volt electrical system, the 24 volt lamps on the trailer must be changed to 12 volt lamps of an equivalent type and wattage. AN INDELIBLE AND LEGIBLE LABEL MUST BE FITTED TO THE TRAILER, ADJACENT TO THE FLEXIBLE CABLE, FOR SOCKET CONNECTION TO THE TOWING VEHICLE, STATING:-

12 VOLT SYSTEM

**Lamps**

47. The following are fitted:-

- a. Tail and Stop ..... 28V 7/30W
- b. Side ..... 26V 6W
- c. Turn ..... 24V 24W
- d. Number Plate Convoy ..... 26V 6W

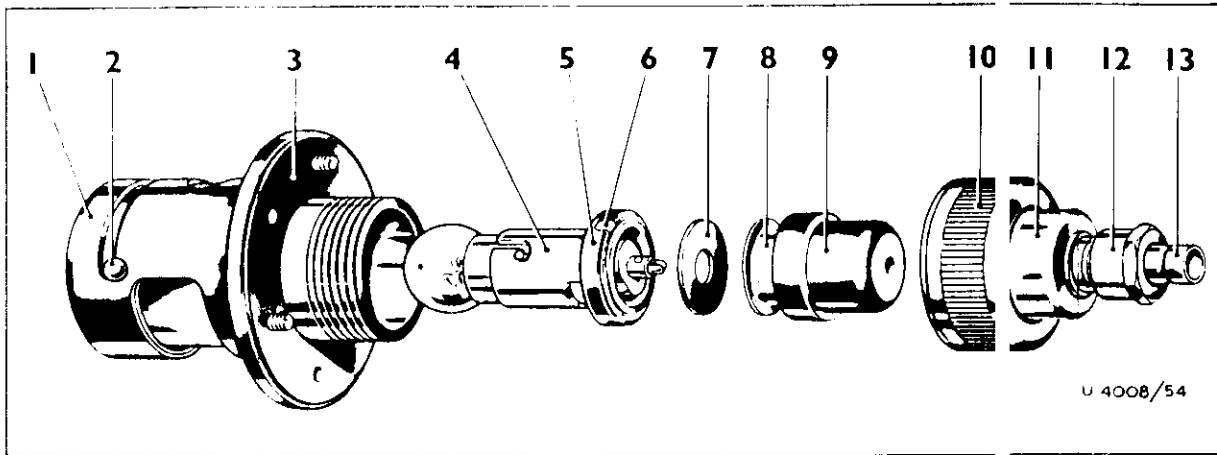


Fig.6. Registration plate light

- |                          |                         |
|--------------------------|-------------------------|
| 1. Light shield          | 8. Lamp holder cup      |
| 2. Locating peg          | 9. Rear rubber mounting |
| 3. Backplate and bush    | 10. Locking ring        |
| 4. Lampholder            | 11. Case                |
| 5. Front rubber mounting | 12. Gland nut           |
| 6. Earthing ring         | 13. Ferrule             |
| 7. Insulating washer     |                         |

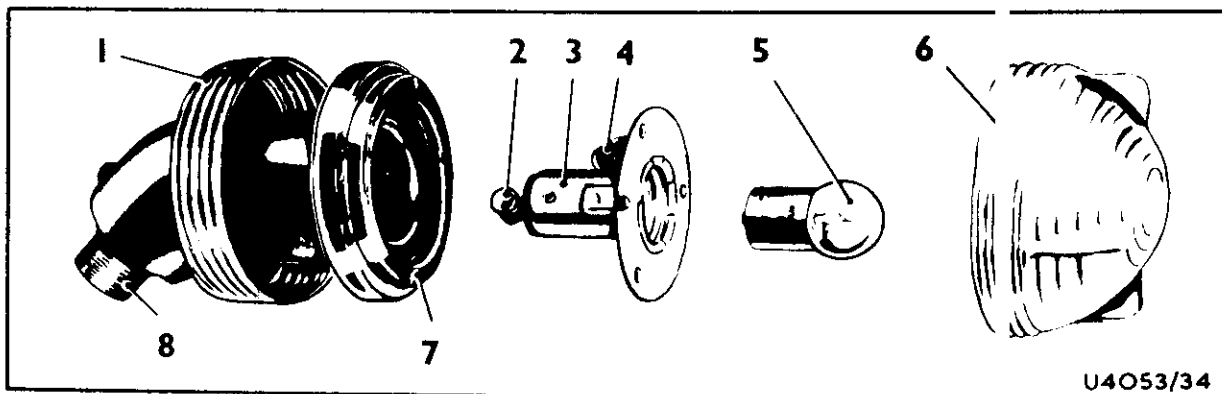


Fig.7. Sidelight

- |                        |                |
|------------------------|----------------|
| 1. Base                | 5. Lamp        |
| 2. Contact ferrule     | 6. Lens        |
| 3. Lampholder assembly | 7. Body        |
| 4. Earth ferrule       | 8. Cable gland |

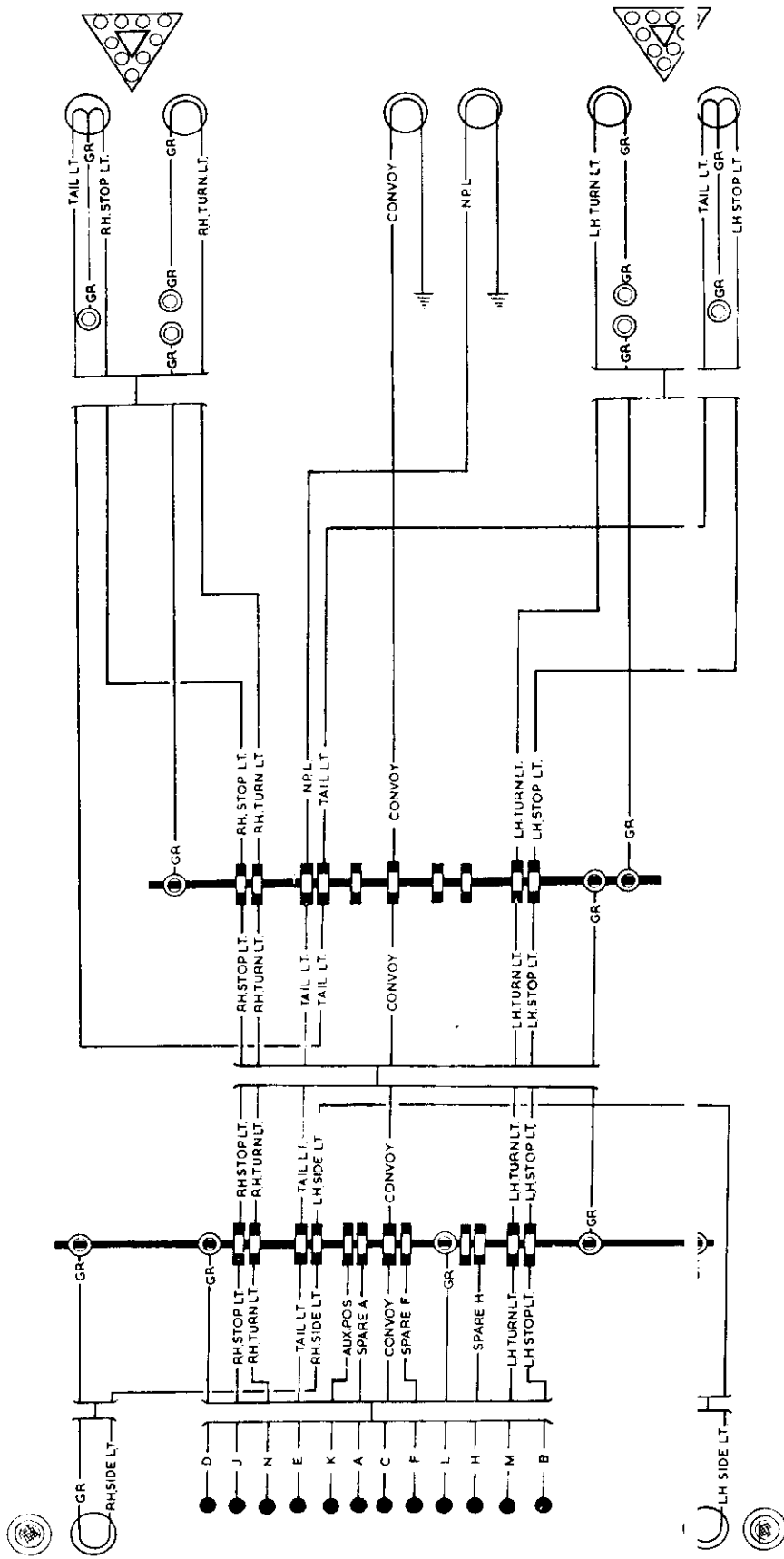


Fig. 8. Wiring diagram