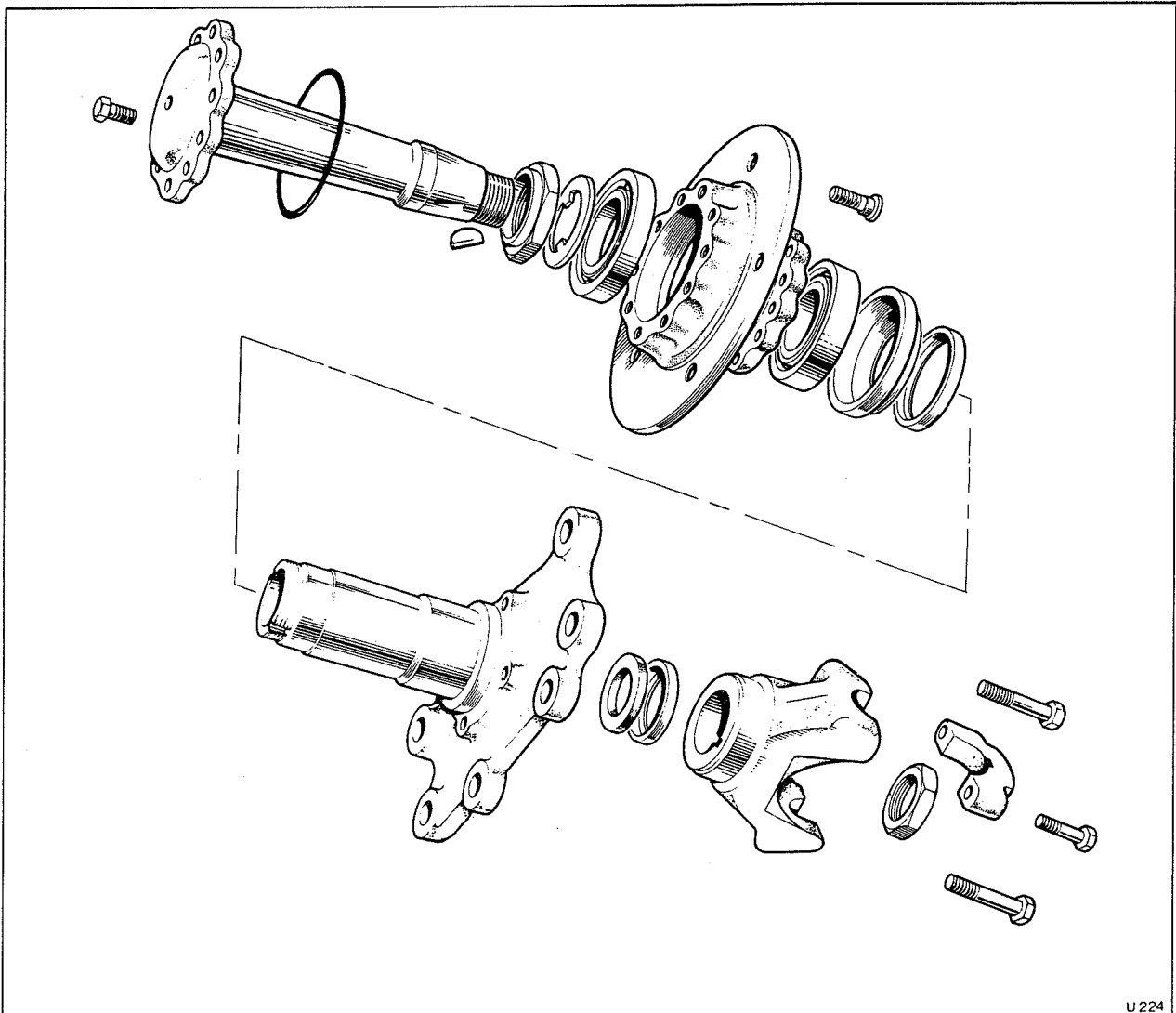


Section J4m

Rear hubs

Hub unit – To remove

1. Position the car on a ramp and securely chock the front road wheels.
2. Remove the rear wheel disc. Loosen but do not remove the wheel retaining nuts.
3. Using a hydraulic jack positioned beneath the final drive casing, raise the rear of the car until the road wheels are clear of the ramp.
4. Position sill blocks beneath the body sills. Lower the hydraulic jack and allow the blocks to support the car body. Support the trailing arms with screw jacks.
5. Remove the rear road wheel.
6. Depressurise the hydraulic system as described in Chapter G Part II Section G2m. Depressurisation of the suspension struts is not necessary.
7. Disconnect the parking brake actuation rod from the brake caliper.
8. Disconnect the two pressure feed pipes from the brake caliper. Fit blanks to the pipe ends and caliper ports.
9. Disconnect and remove the brake caliper bridge pipe. Fit blanks to the pipe ends and caliper ports.
10. Remove the setscrews securing the bearing caps to the yoke at the half-shaft universal joint. Separate the



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Fig. J15m Rear hub

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universal joint from the yoke by easing the half-shaft inwards towards the final drive. Care should be taken to retain the bearing caps on the universal joint during removal.

11. Tape the needle roller bearing caps in position on the universal joint. Alternatively remove them noting from which side of the joint they have been removed.

12. If the rear hub assembly is to be dismantled loosen the two setscrews securing the brake caliper to the hub yoke.

13. Remove the two lower setscrews securing the stub axle flange to the trailing arm (see Fig. J16m).

14. Support the rear hub and brake caliper assembly. Remove the two upper setscrews securing the stub axle to the trailing arm.

15. Carefully withdraw the rear hub and brake caliper assembly from the trailing arm and remove it from the car.

Hub unit – To dismantle

1. Remove the rear hub and brake caliper assembly as described previously.

2. Remove the setscrews securing the brake caliper to the hub yoke.

3. Carefully slide the brake caliper off the brake disc. Fit a distance piece between the brake pads to ensure the caliper pistons are retained in their bores.

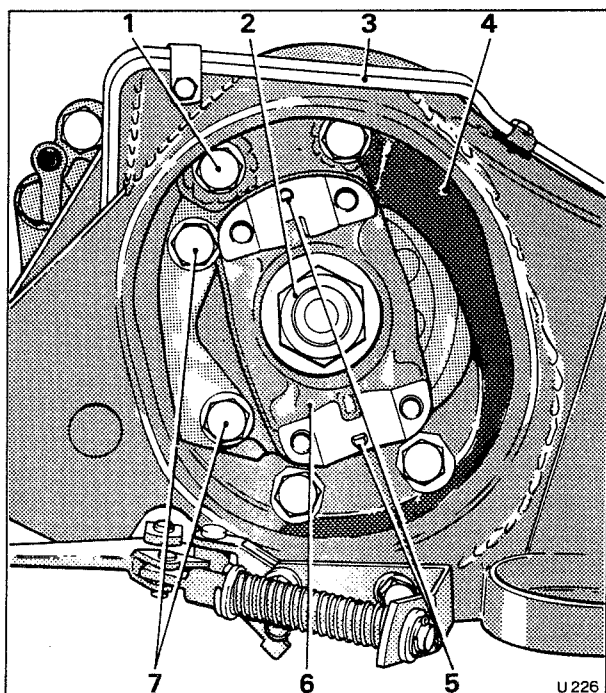


Fig. J16m Rear hub and brake caliper mounting

- 1 Hub mounting bolts (4)
- 2 Drive shaft retaining nut
- 3 Hydraulic brake pipes
- 4 Trailing arm
- 5 Universal joint location dowels
- 6 Yoke
- 7 Brake caliper mounting bolts

4. Remove the large nut securing the yoke to the hub drive-shaft (see Fig. J16m).

5. Using the extractor tools (RH 9004 and RH 9005), remove the yoke from the tapered hub drive-shaft. Collect the Woodruff key.

6. Remove the setscrews securing the outer flange of the drive shaft to the hub. Withdraw the drive-shaft from the hollow stub axle.

7. Unlock and remove the shrouded nut and the key washer from the stub axle.

8. Withdraw the hub complete with bearings from the stub axle; collect the chamfered distance piece.

9. Remove the outer bearing inner race. Using a soft metal drift, drive out the inner bearing together with the grease retainer.

10. Drive out the outer bearing track from the hub.

11. Remove the retainer and felt seal from the stub axle counterbore.

12. With the hub dismantled inspect the brake disc and caliper pads for wear or damage. If it is necessary to remove the brake disc, remove the securing setscrews and withdraw the disc from the hub.

13. Thoroughly clean all hub components and inspect for wear and damage.

Hub unit – To assemble

1. Press new bearing outer races into the hub, smaller end of the taper leading. Ensure that the leading faces abut the shoulders of the hub counterbore.

2. Pack the hub with approximately 71 gm. (2 oz.) of the approved grease (see Chapter D Lubricants). The grease must be smeared on the inner wall of the hub to ensure that when the hub is fitted to the stub axle the grease remains in position.

3. Lubricate the new inner races with the approved grease and fit them to their respective outer races.

4. With the inner bearing in position, press the Acme threaded grease retainer into position. Ensure that the leading edge abuts the bearing outer race.

It is essential that the correct hand of grease retainer is fitted to the respective hubs. The grease retainers can be identified by the 'Acme' thread direction in the bore of the retainer. The right-hand (off-side) hub has a right-hand 'Acme' thread, the left-hand (near-side) hub has a left-hand 'Acme' thread.

Note

When renewing the bearing of more than one hub at the same time, always retain the inner race and roller cage together with the outer race. The inner and outer races are a matched set and should not be fitted separately.

Hub unit – To fit

1. Fit a new felt seal and retainer into the stub axle. Apply a small quantity of approved grease (see Chapter D) to the felt seal.

2. Fit the distance piece, chamfered edge leading, onto the stub axle to abut the shoulder.

3. Position the hub on the stub axle and fit the hardened key washer and new shrouded nut.

4. Tighten the nut sufficiently to remove any bearing end-float. Using a dial test indicator mounted adjacent to the brake disc measure the run-out of the disc at the

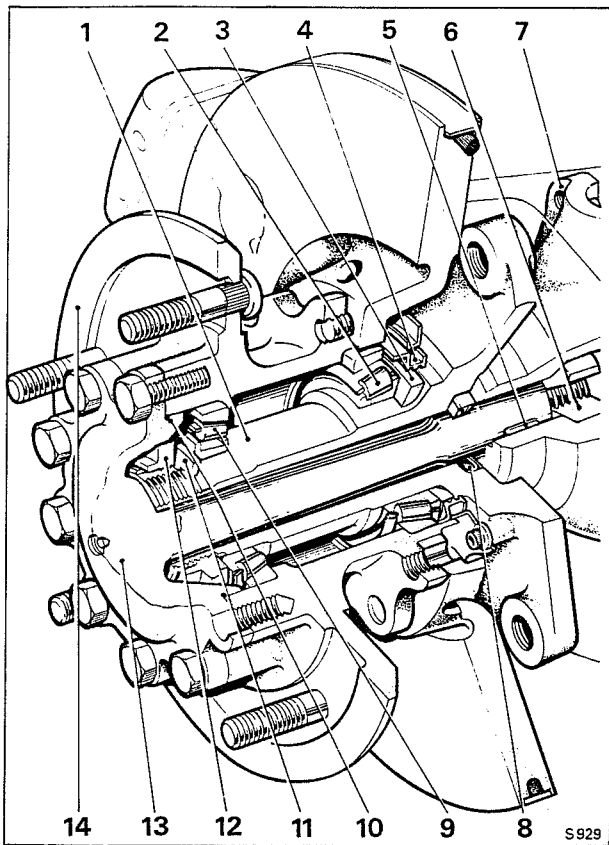


Fig. J17m Rear hub

- | | |
|----|----------------------------|
| 1 | Stub axle |
| 2 | Inner taper roller bearing |
| 3 | Distance piece |
| 4 | Acme thread seal |
| 5 | Woodruff key |
| 6 | Nut |
| 7 | Yoke |
| 8 | Felt seal and retainer |
| 9 | Outer taper roller bearing |
| 10 | Seal |
| 11 | Keyed adjusting washer |
| 12 | Shrouded nut |
| 13 | Drive-shaft |
| 14 | Hub |

maximum possible radius.

The run-out must not exceed 0,178 mm. (0.007 in.) total indicator reading as this is a measure of the stack tolerance of all the components. If the run-out exceeds this figure, it will be necessary to dismantle the hub and brake disc to investigate the cause.

5. After checking the run-out slacken the shrouded nut. Place a feeler gauge between the outer bearing and the key washer. Tighten the nut sufficiently to lightly grip the feeler gauge to obtain a bearing end-float of between 0,05 mm. and 0,10 mm. (0.002 in. and 0.004 in.), when the feeler gauge is removed.

Alternatively, the required end-float can be obtained by use of suitable dial test indicator equipment secured to the stub axle.

Continuous rotation of the hub is essential during

this operation to ensure that the taper rollers seat correctly in the outer races.

6. Peen the shroud of the nut to locate into the grooves of the stub axle; remove the feeler gauge or dial test indicator.

Note

Incorrect setting i.e. exerting a load on the bearings or giving excessive end-float, will promote premature bearing wear. The remaining operations for fitting the rear hub unit are a careful reversal of the procedure given for removal and dismantling, noting the following operations.

7. Fit a new rubber 'O' ring onto the hub drive-shaft, apply a small quantity of grease to the ring before fitting.

8. Fit the Woodruff key to the hub drive-shaft taper before fitting the hub yoke.

9. Apply Rocol MTS 1000 grease or equivalent to the threads and abutment face of the yoke retaining nut and torque tighten to the figure quoted in Chapter P using torque spanner (RH 8014) and socket (RH 8026).

10. When fitting the half-shaft universal joint to the hub yoke ensure that the bearing caps seat correctly in the yoke and that the bearing cap setscrews are torque tightened (see Chapter P).

11. When fitting the brake feed pipes and parking brake linkage refer to Chapter G Part II for information regarding bleeding procedure and precautions to be taken.

12. Check the adjustment and operation of the parking brake as described in Chapter G Part II.

13. Fit the road wheel and remove the supports beneath the body and trailing arms.

14. Tighten the wheel nuts and fit the wheel disc.