

## Section H5 FRONT HUBS

### Front hub—To remove (see Fig. H16)

1. Apply the hand brake and chock the rear wheels.
2. Remove the gear range selector thermal cut-out, as described in Chapter M – Electrical System.
3. Carefully position a jack beneath the front lower triangle lever pivot points at the centre of the car; a hardwood block should be placed between the jack head and the pivot points before raising the car.
4. Remove the combined wheel disc/hub cap, and slacken the road wheel nuts, but do not remove the road wheel.
5. Raise the car and place suitable blocks to support the sill boards (RH 7820) beneath the body sills. In addition, place supports beneath the outer ends of the front lower triangle levers.
6. Remove the wheel nuts and road wheel(s).
7. Using a screwdriver inserted between the lip of the hub dust cover and the hub flange, prise off the dust cover. Care must be taken when removing the dust cover to avoid damaging the earthing contact inside the cover.
8. Remove the sealing band split pin, castellated nut and keyed washer from the stub axle. It will be necessary to break the sealing band in order to remove it from the split pin.  
**Note** The right-hand stub axle has right-hand threads, the left-hand stub axle left-hand threads.
9. The brake disc is secured to the hub by setscrews, therefore it will be necessary to remove the brake calipers in order to withdraw the hub from the stub axle. (See Chapter G – Hydraulic System).
10. Withdraw the hub from the stub axle complete with bearings and grease retainer.
11. Retain the chamfered distance piece.
12. Place the hub on a suitable working surface; inspect the brake disc and pads of the brake calipers for wear or scoring.
13. Ensure that the brake disc setscrews are torque tightened to the correct figure (see Chapter P – Torque Tightening Figures).

### Front hub—To fit

1. Fit the distance piece, with the chamfered edge leading, onto the stub axle to abut the shoulder adjacent to the yoke.

2. Position the hub onto the stub axle, fit the key washer, then finger tighten the castellated nut sufficiently to remove any hub end-float.

3. Using a dial indicator mounted adjacent to the brake disc, measure the run-out of the disc at the maximum radius possible; this must not exceed 0.007 in. (0,178 mm.) total indicator reading.

**Note** The reading obtained is a measure of the tolerances of all the components and if the run-out figure exceeds this measurement, dismantle the hub and brake disc to investigate the cause of the run-out.

4. If the run-out figure is within limits, remove the hub from the stub axle and pack the hub with approximately 1½ oz. (42,64 gm.) of the approved grease. The grease should be liberally smeared on the bearings and on the inner wall of the hub so that it is not disturbed when the hub is fitted to the stub axle.

5. Fit the hub, key washer and castellated nut.

6. Using a 0.004 in. (0,102 mm.) feeler gauge inserted between the outer bearing and key washer, or a suitable dial test indicator equipment, tighten the castellated nut sufficiently to grip the feeler gauge lightly or to give a reading of 0.002 in. to 0.006 in. (0,051 mm. to 0,152 mm.) end-float on the dial test indicator.

Continuous rotation of the hub is essential during this operation to ensure that the taper rollers seat correctly.

7. When the correct end-float is obtained, unscrew the castellated nut to align the nearest slot in the nut with the nearest hole in the stub axle.

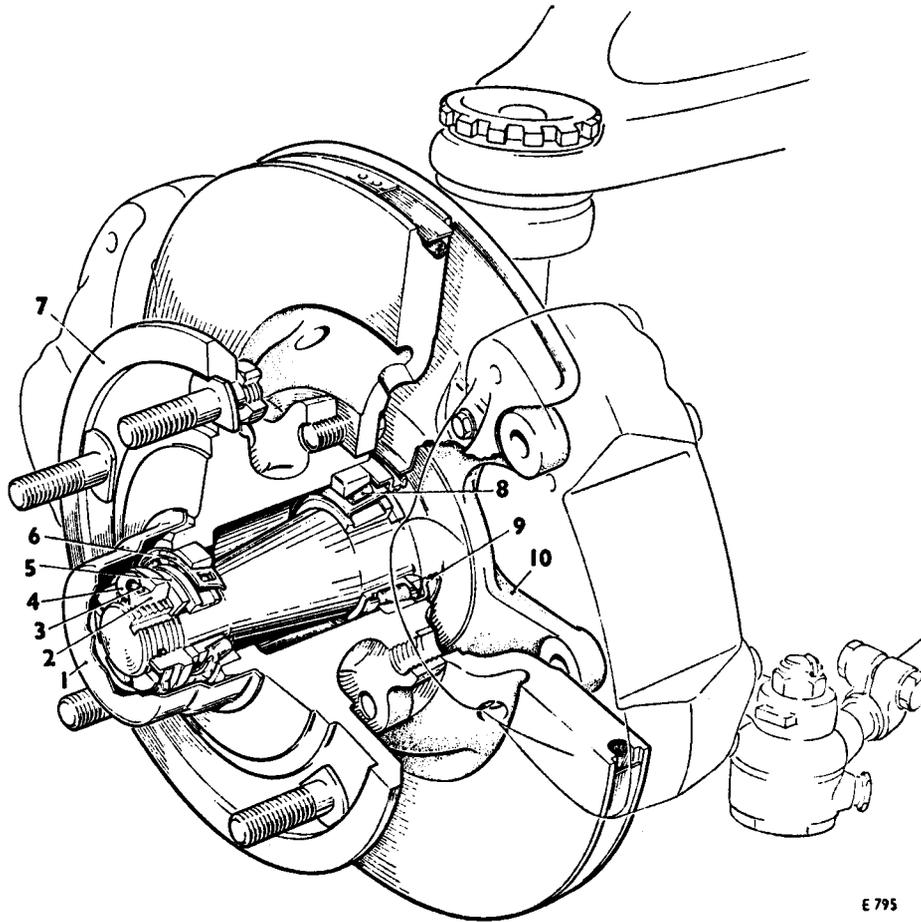
8. Measure the end-float by either of the two methods, and select a suitable key washer to give the correct end-float.

**Note** Key washers are provided in thicknesses of 0.138 in. and 0.140 in. (3,51 mm. and 3,56 mm.). Incorrect setting of the bearings, either too slack or too tight will result in premature bearing wear.

9. Fit a new split pin and sealing band. Bend back the split pin legs and crimp the ends of the sealing band to lock the nut in position.

10. Smear approximately ½ oz. (14,21 gm.) of the approved grease into the base of the dust cover. Fit the dust cover by tapping into position on the hub with a nylon hammer. Whilst fitting this cover, ensure that the earthing strip is in the correct position to make contact with the stub axle end face.

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**FIG. H16 CUT-AWAY VIEW FRONT HUB**

- |                          |                                     |                                     |
|--------------------------|-------------------------------------|-------------------------------------|
| <b>1</b> Dust cover      | <b>4</b> Split pin                  | <b>8</b> Inner taper roller bearing |
| <b>2</b> Castellated nut | <b>5</b> Keyed distance piece       | <b>9</b> Acme threaded seal         |
| <b>3</b> Sealing band    | <b>6</b> Outer taper roller bearing | <b>10</b> Stub axle/yoke            |
|                          | <b>7</b> Hub                        |                                     |

11. To fit the brake calipers, reverse the procedure given for removal. Ensure that the disc faces are free from foreign matter, e.g. grease or oil, etc.
12. Fit the road wheel; screw on the wheel nuts but do not tighten.
13. Lower the car from the jack and supports and fully tighten the road wheel nuts to the torque figure given in Chapter P – Torque Tightening Figures.
14. Fit the wheel disc/hub cover plate.

**Front hub—To dismantle**

1. Remove the hub.
2. Lift out the bearing inner race from the outer bearing.
3. Using a screwdriver prise the grease retainer from the inner end of the hub and lift out the inner race of the inner bearing.

**Note** Each grease retainer is clearly marked 'Off-side Right-hand' or 'Near-side Left-hand' to ensure that they are fitted to the correct side of the car.

4. Using a soft metal drift, drive out the outer races of the inner and outer taper roller bearings.
5. Thoroughly clean the hub and any components to be refitted.

**Front hub—To assemble**

1. Press the new bearing outer races squarely into the hub with the smaller end of the taper bore leading. Ensure that the races are fully seating on the rear shoulders of the hub.
2. Lubricate the new inner races and roller cages with the approved grease and fit them to the mating outer races in the hub.

**Note** When fitting bearings to more than one hub at a time, ensure that each bearing set remains separate from the other set, as all bearings are supplied in matched sets.

3. Press the correct grease retainer squarely into position in the hub until the leading edge abuts the bearing outer race.