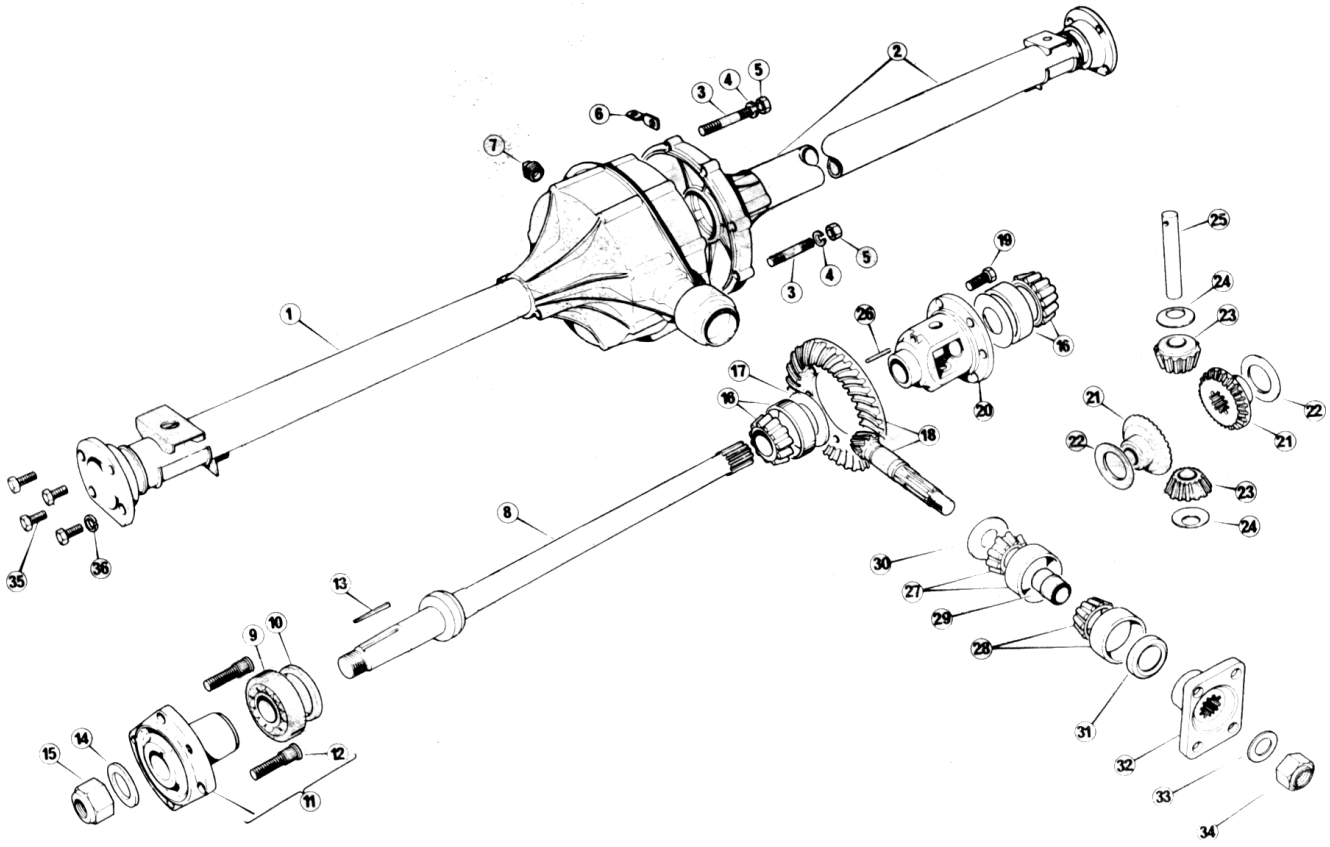

FIG 7 : 7 The rear axle components

Key to Fig 7 : 7 1, 2 Axle tubes 3 Studs 4 Lockwashers 5 Nuts 6 Bracket 7 Filler/level plug 8 Halfshaft 9 Bearing 10 Oil seal 11 Hub 12 Stud 13 Key 14 Washer 15 Nut 16 Taper bearings 17 Shim 18 Crownwheel and pinion 19 Bolt 20 Differential case 21 Differential wheels 22 Thrust washers 23 Differential pinions 24 Thrust washers 25 Differential pin 26 Pin 27, 28 Bearings 29 Collapsible spacer 30 Spacer 31 Oil seal 32 Flange 33 Washer 34 Nut 35 Setscrew 36 Lockwasher

The rear axle is refitted in the reverse order of removal. Once it has been fitted, the brakes must be bled and the handbrake cable adjusted as detailed in **Chapter 10, Sections 10 : 7** (or **10 : 9**) and **10 : 8** respectively.

Hub and halfshaft assembly :

The components of the rear axle on 750 models are shown in **FIG 7 : 7**. 850 models are similar, with the addition of an oil seal retaining plate to protect the brakes.

Raise the rear of the vehicle, support firmly on stands under the suspension and remove the road wheel. Take out the one countersunk screw and pull off the brake drum. Dismantling will be easier if the brake shoes are removed and the hydraulic pipe to the brake disconnected although, if care is taken, this will not be necessary. Disconnect the handbrake cable from the brake lever (see **Chapter 10, Section 10 : 8**).

Unscrew the nut 15 that secures the halfshaft to the hub 11. The nut should not be removed but left flush with the end of the halfshaft to protect the threads when using the extractor. Use a suitable extractor to pull the hub out as far as the nut, remove the nut and take off the hub.

Unscrew the four setscrews 35 complete with locking washers 36 that secure the brake backplate to the axle flange. If care is taken, the backplate can be swung out of the way still attached to the brake pipe. However, if there is any danger of straining the pipe, it should be disconnected and the brakes bled after reassembly. Note that on 850 models an oil seal retaining plate is fitted between the backplate and axle flange and must be refitted on reassembly.

Using a suitable extractor remove the halfshaft 8. Remove the hub key 13, press off the end bearing 9 and remove the oil seal 10 from the housing. The oil seal collar behind the bearing should not be disturbed. If it is, it must be reset with a 74mm (2.90in) clearance from the outside face of the collar to the end of halfshaft taper. If, on removing the hub, the hub key comes with it, it should be driven out with a suitable drift.

The parts are refitted in the reverse order of removal, noting the following points:

1 After locating the bearing on the halfshaft, pack with a suitable high melting point grease.

2 When correctly fitted, the bearing 9 should protrude 0.127 to 0.254mm (0.005 to 0.010in) from its housing.

After fitting the brake backplate, make sure that the key 13 is fitted and tap the hub assembly 11 back into position, aligning the key and keyway until sufficient threads of the drive shaft protrude for the washer 14 and nut 15 to be refitted. Tighten the nut to draw the hub into place until it is seated on the taper and against the race of the bearing 9, and then tighten with a torque wrench to 13.5 to 14.9daNm (100 to 110lbf ft).

Servicing the differential assembly :

Special tools are required for dismantling and reassembling the differential and to enable the correct selection of shims, otherwise the crownwheel and pinion will not be in correct mesh and the axle will always operate inefficiently. For this reason, the owner is advised to take the axle to a Reliant agent if any work is necessary to the differential assembly.

7 : 6 *Fault diagnosis*

(a) Noisy axle

1 Insufficient or incorrect lubricant
2 Worn bearings
3 Worn gears
4 Damaged or sheared gearteeth
5 Meshing of crownwheel and pinion incorrect

(b) Excessive backlash

1 Check 2 and 3 in (a)
2 Worn drive shaft splines
3 Worn universal joints
4 Loose or broken wheel studs

(c) Oil leakage

1 Defective oil seal in hub
2 Defective pinion shaft oil seal
3 Defective seal on universal joint spiders (shown by black line on body above joint)
4 Blocked breather
5 Overfilled rear axle

(d) Vibration

1 Propeller shaft out of balance
2 Wheels and tyres badly out of balance, or flat spots on tyre(s)
3 Worn universal joints
4 Propeller shaft incorrectly assembled

(e) Rattles

1 Damper mountings loose or worn
2 U-bolts loose
3 Worn bushes in spring attachments

(f) Settling

1 Weak spring leaves
2 Badly worn shackle pins and bushes

(g) Knock

1 Badly worn splines on drive shaft or in differential unit
2 Badly worn universal joints