

33. Apply a thin coating of red, white or yellow ochre to the crown wheel teeth. Fit the shafts and hold them to apply a load, and rotate the pinion in both directions.

Check the tooth patterns on both sides of the gears and rectify if incorrect. (Four methods of correction are illustrated.)

34. Place a new gasket on the axle housing and refit the differential assembly. Replace the lock nuts.

DRIVE PINION OIL SEAL

To Remove

1. Mark the drive shaft and pinion flanges for correct re-

alignment on reassembly and then remove the four nuts and bolts.

2. Lower the rear of the drive shaft and move it aside.

3. Hold the pinion flange with tool and unscrew the pinion bearing nut.

4. Remove the pinion drive flange and oil seal.

To Install

5. Fit a new pinion drive flange oil seal, after applying sealer to the outside diameter of the seal.

6. Inspect the pinion drive flange for damage on oil seal journal, renew if necessary.

7. Fit the drive flange and a new retaining nut. Tighten the nut until end-float of 0.05 to

0.13 mm (0.002 to 0.005 in.) obtained.

8. Fit the pre-load gasket on drive flange and measure seal running torque.

9. Gradually and evenly tighten the drive flange nut to 1016 to 1243 mNm (90 to 110 lb. ft.) torque, plus the torque in sub-operation 8.

10. Frequent checks should be made with the pre-load gasket since if the maximum pre-load is exceeded, this will necessitate replacement of the gasket and spacer in the differential assembly.

11. Lift the rear of the axle shaft, align the marks on the four bolts and lock nuts to specifications.

REAR AXLE — SPECIFICATIONS

Engine		Transmission		Rear Axle Ratio	No. of teeth		
		Manual	Auto-matic		Crown wheel	Drive pinion	Speedometer worm gear
1.3 HC	Sedan	x	x	3.89	35	9	7
1.6 HC (2V)	Sedan	x	x	3.54	39	11	7
1.3 HC	Van	x	x	4.125	33	8	6

PINION BEARING PRELOAD (Add Oil Seal Drag)

New Bearings 1470 - 2150 mNm (13 - 19 lb. ins.)
 Used Bearings 730 - 1070 mNm (6.5 - 9.5 lb. ins.)

SIDE BEARING PRELOAD (Cap Spread)

New Bearings 0.200 - 0.250 mm (0.008 - 0.010 in.)
 Used Bearings 0.100 - 0.125 mm (0.004 - 0.005 in.)

CROWN WHEEL TO PINION BACKLASH 0.13 - 0.18 mm (0.005 - 0.007 in.)

TIGHTENING TORQUES

	Nm	Lb. Ft.
Diff. Carrier to Axle Housing	35-41	26-30
Axle Shaft Retainer Plate	21-25	15-18
Bearing Cap Bolts	62-69	46-51
Crown Wheel to Diff. Case	68-75	50-75
Filler Plug	35-42	26-31
Breather	13-16	10-12
Bearing Adjuster Lock Plates	19-22	14-16

LUBRICANT: ESWM2CI08A (SAE 90) 1.1 litre (1.9 pts.)