Moving transfer box to work bench

17. Pass chain around the transfer box and using suitable lifting equipment support its weight.
18. Remove the four bolts retaining the transfer box to the hydraulic hoist (locally made) adaptor plate.
19. Lift the transfer box off the hydraulic hoist on to the work bench.

NOTE: To facilitate removal of various items on the work bench, obtain suitable wooden blocks to enable the transfer box to be turned and propped up as required.

Bottom cover removal

20. Remove the six remaining bolts retaining the bottom cover, the outer four were removed with the adaptor plate (see item 18).

Intermediate shaft removal

21. Remove the shaft lock plate retained by a single bolt at the front face of the transfer box.
22. Withdraw the intermediate shaft, using a screw driver in the slotted end. Where the shaft cannot be easily withdrawn use extractor RO605862.
23. Lift out the intermediate gear train.
24. Remove the thrust washers.
25. Remove the 'O' ring from the intermediate shaft and the transfer box case.

Power take off cover removal

26. Remove the six bolts retaining the circular P.T.O. cover.
27. Remove the gasket.

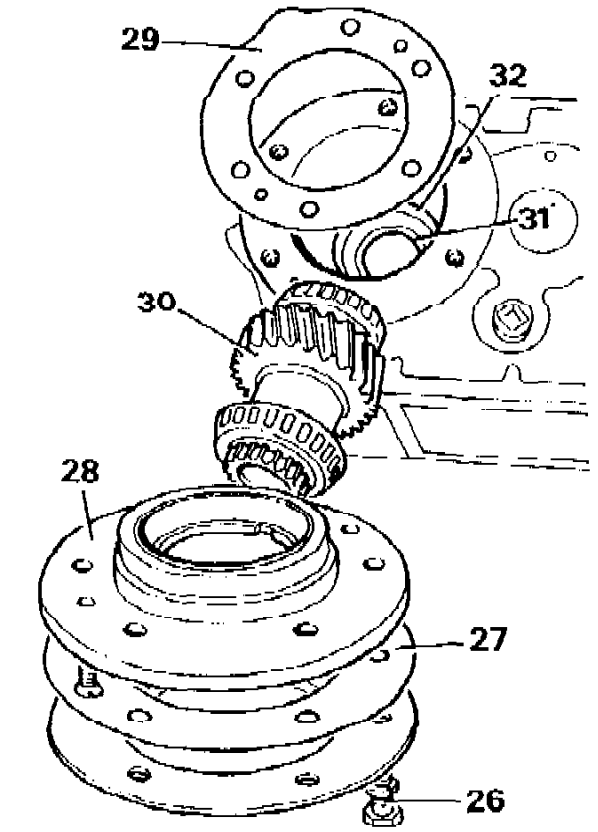
Input gear removal

28. Remove the two countersunk screws and release the mainshaft bearing housing.
29. Remove the gasket.
30. Remove the input gear assembly.
31. Prise out and discard the oil seal at the front of the transfer case using service tool 18G1271.
32. Drift out the input gear front bearing track.

High/low selector housing removal

33. Remove the six bolts to release the selector housing.
34. Remove the gasket.

Continued



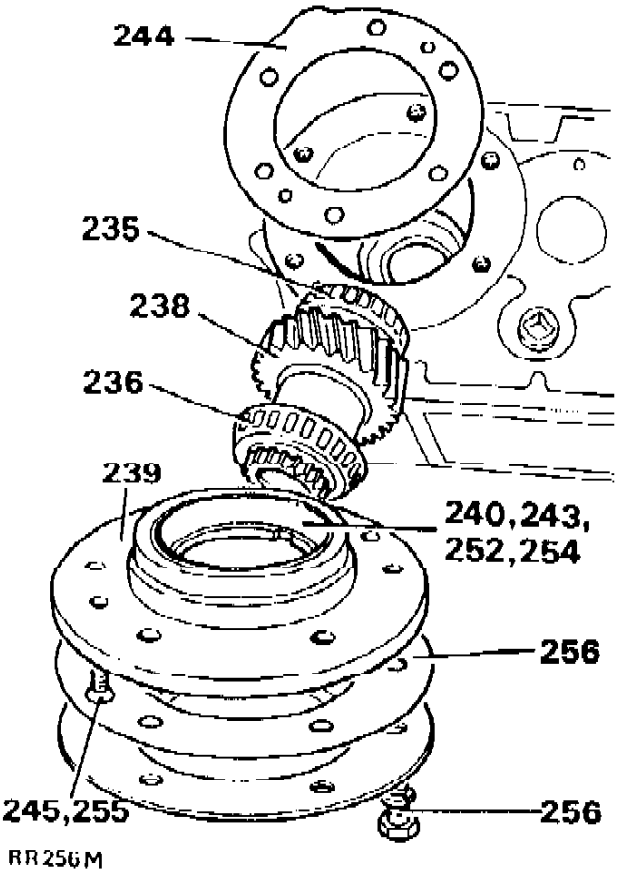
RR242M

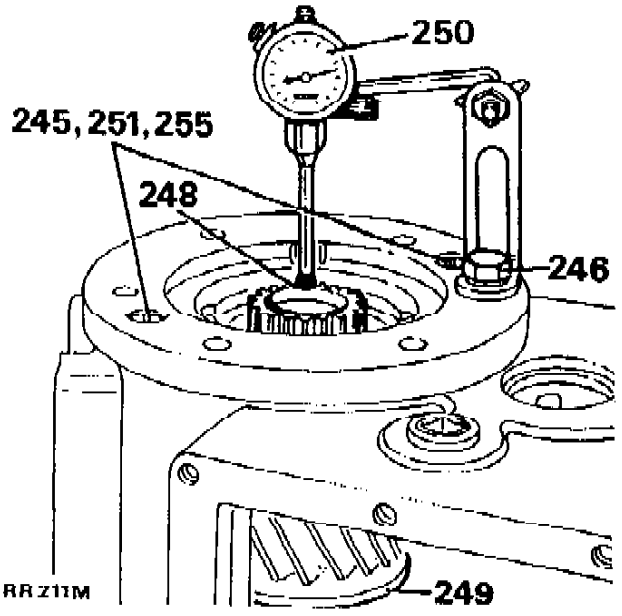
Reassembly

235. Locate the front taper roller bearing on the input gear assembly and drift the bearing fully home.
236. Repeat above procedure and fit the rear taper roller bearing.
237. Lubricate both bearings with oil.
238. Fit input gear assembly into the transfer box. From the rear (larger gear to the front).

Obtaining bearing pre-load

239. Secure the mainshaft bearing housing in the vice.
240. Drift out the rear input gear bearing track and remove the shim behind it.
241. Clean the main bearing housing and measure original shim, noting its thickness.
242. Select a slightly thinner trial shim than the original in order to obtain an end float condition and fit to the main bearing housing.
243. Locate the rear bearing track on the main bearing housing and drift it fully home.
244. Apply grease to the gasket and fit on to the transfer box casing.
245. Fit the main bearing housing and tighten the two securing screws to the specified torque.
246. Fit a dial gauge mounting bracket on to the mainshaft bearing housing with a single bolt.
247. Fit a dial gauge with bracket RO530106 to the mounting bracket.
248. Align the gauge pointer on the end of the gear, setting the gauge to '0'.
249. Lift the large gear by hand to record the end float.
250. Remove the dial gauge assembly and mounting bracket.
251. Remove the two screws retaining the mainshaft bearing housing.
252. Drift out the rear bearing track from the bearing housing and remove and discard the trial shim.
253. Select a shim to the required thickness to obtain the correct pre-load of 0,02–0,07 mm (0.001–0.003 in) on reassembly. This is achieved by adding the thickness of the trial shim and the end float obtained to the pre-load specified.
254. Fit the shim to the main bearing housing and then drift the rear bearing track into position.
255. Fit the main bearing housing and tighten the two securing screws to the specified torque.
256. Grease and fit P.T.O. cover gasket and finally fit the P.T.O. cover securing it with six bolts (with spring washers) to the specified torque.





Torque settings: 40-50 ft/lbs (29-37 nm)