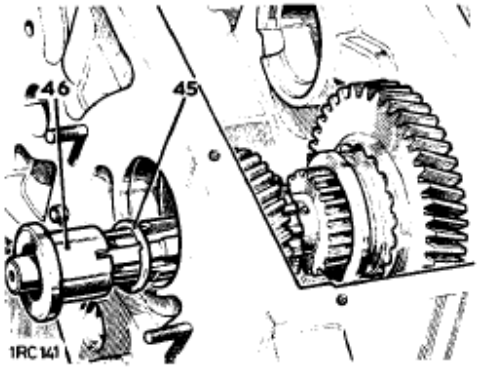
(ALL HELICAL GEAR TYPE)

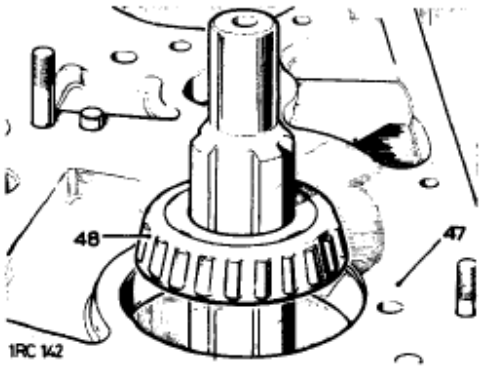
45 Slide the thrust washer for the high gear wheel over the front of the shaft and through the centre of the high speed gear, taking care to ensure that the washer slides over the peg and is located in the recess on the gear change inner member.

46 Fit the bush through the high gear wheel and locate it also on the peg.



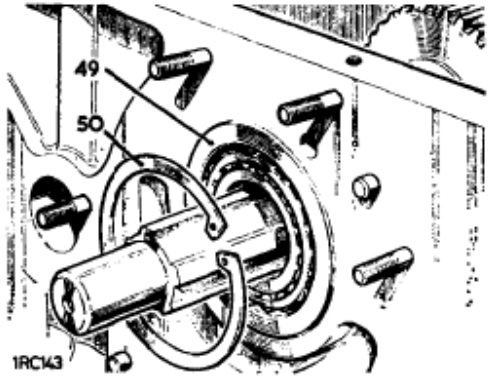
47 Turn the casing on its side with the rear face downwards.

48 With the output shaft threaded end resting on the bench, drift the front taper roller bearing on to the shaft. Protect the thread against damage and make sure that the gears do not separate while the roller bearing is being fitted otherwise the bushes may become dislodged from the pegs on the shaft.



49 With the assembly held in the same position, drive the front bearing outer race into the housing.

50 Fit the circlip.



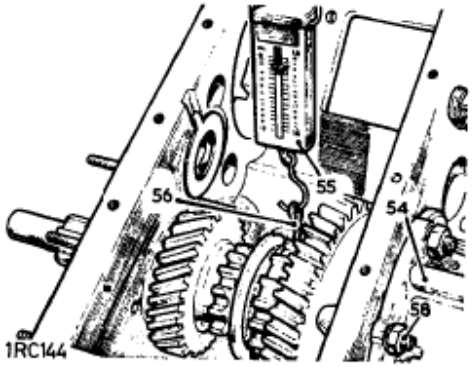
51 Fit the rear bearing outer race, do not fit fully in at this stage.

52 Using the protection cap 243241 over the threaded end of the output shaft, drive the shaft forward until the front bearing is hard against the circlip.

53 Then lightly tap the rear bearing outer race further in to remove all end-float from the output shaft without introducing pre-load.

Setting the output shaft bearing pre-load, items 54 to 61

54 Fit the speedometer housing, without any shims, and loosely retain with nuts and spring washers.



55 Measure the rolling resistance of the output shaft, using a nylon cord attached to a spring balance. Coil the cord around the low gear wheel selector groove and note the measurement recorded on the spring balance required to rotate the output shaft after having overcome inertia.

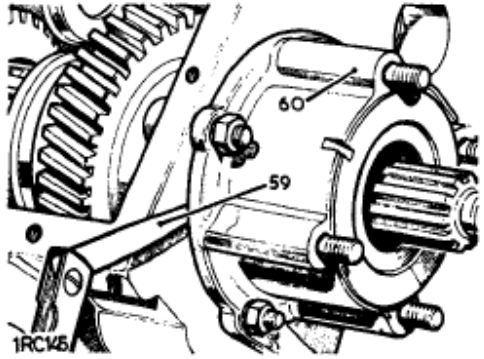
56 Ensure that the cord does not slip, giving a false reading.

57 Bearing pre-load is correct when a figure of 0,9 kg. to 1,8 kg. (2 lbs to 4 lbs.) is recorded on the spring balance.

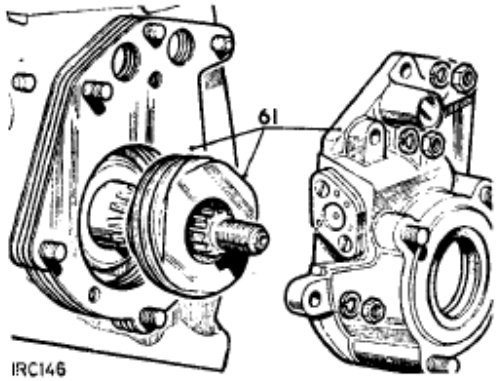
58 Adjustment is made by tightening the speedometer housing securing nuts, progressively and evenly.

59 When the bearing pre-load is correct, ensure that the clearance between the speedometer housing and the transfer box is evenly disposed, using feeler gauges. The measured clearance obtained is equal to the thickness of shims required for subsequent assembly between the speedometer housing and transfer box to maintain correct bearing pre-load.

60 Withdraw the spring balance and nylon cord from the low gear wheel, and remove the speedometer housing from the transfer box.



61 Using a determined thickness of shims, fit the speedometer drive worm and housing.



Determining the intermediate gear end-float, items 62 to 66

62 Place the two thrust washers for the intermediate gear in position in the transfer box and retain with a film of grease. The washers must be fitted with the bronze faces inward and located in the casing by their tabs.

63 Locate the intermediate gear, complete with roller bearings, in position in mesh with the high and low gear wheels.