

## SECTION 16 - GEARBOX

1. The gearbox is of the pre-selective epicyclic type. It is of unit construction with the transfer box, fluid coupling and engine. The gearbox provides five speeds in one output direction only. All five speeds can be used in either a forward or reverse direction by means of the transfer box.
2. The gearbox has a capacity of 10 pints of oil. It is fitted with a combined dipstick and breather (Fig 44(12)) and a filler plug (11), which are accessible after opening a hinged cover. A drain plug is reached after removal of the access plate (Fig 11(4)) on the underside of the hull.

*WARNING: The gearbox is fitted with a pressure lubrication system, the pump is driven from the input shaft. Should the vehicle be towed with the transfer box engaged, gearbox in neutral and the engine not running, some parts of the gearbox will be running without lubrication. It is important that, when being towed, the gearbox is made completely free by engaging neutral in the transfer box, (see Section 17). Engaging neutral in the gearbox is not sufficient. The towing speed should not exceed 20 mile/h.*

### GEAR SELECTOR LEVER

3. The gear selector lever (Fig 56(15)) is mounted in a quadrant to the right of the driver's seat and is provided with the following gear positions:-

1st, 2nd, 3rd, 4th, 5th (Top) and N (Neutral)

4. The gear selector does not engage the gear and the position of the lever is no indication of the gear which is engaged in the gearbox. When the lever is moved, it operates a camshaft, in the gearbox, which selects the gear that will be engaged when the gear change pedal (6) is depressed and released.
5. It is most important that, before the engine is started, the selector lever is moved to the neutral position and the pedal operated. The pedal should be operated even if the lever is already in the neutral position.
6. When 1st gear is being selected, it will be necessary to press the button on the top of the selector lever.
7. When any gear is being engaged, the lever should be moved to the required position before the change is made. The lever may be left in position for the next gear for any length of time.

### OPERATION OF THE GEARBOX

8. The pre-selective, epicyclic gearbox consists of a train of epicyclic gears (Fig 45) and a multi-plate clutch (5).
9. To engage a gear, other than top gear, part of the train is stopped by applying a brake to one of a series of brake drums in the gearbox. This applies to all except top gear in which a multi-plate clutch is engaged to provide a straight through drive. The clutch is operated in the same manner as the brake bands which engage the other gears.