Special Gear Combinations

Converting the Pinion Shaft

For competition events it may become necessary to install a gear set to match the particular circuit. In the following, the various changes required to use a third gear in the place of a fourth gear are shown. The disassembly and assembly of the pinion shaft is accomplished in the same sequence as in section R, operation 3 and 6 RA, observing the following points in particular:

1. Carefully select the correct ratio and note that both gear wheels have the same pairing number. Always keep needle bearings, bearing sleeve, and gear as a unit. Do not use different gear wheels on a needle bearing which has run in another gear.

2. Install new fourth gear inner bearing race (bearing sleeve) and install needle bearing for third gear. This bearing has a smaller cage as shown in Fig. 7.

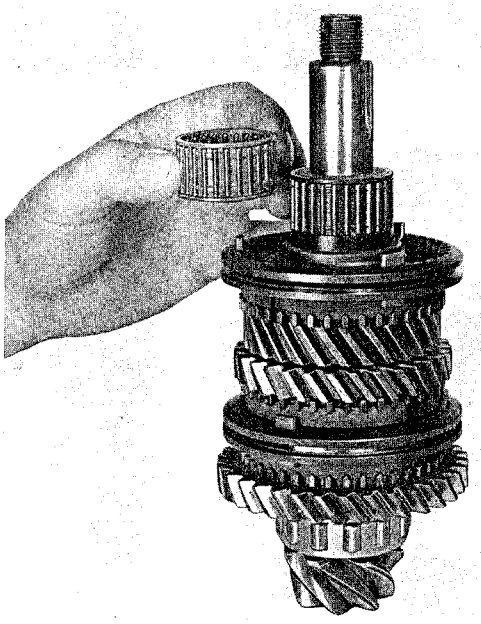

Fig. 7

3. In case of gears where the sliding sleeve will not pass over the gear teeth as in the case of 3 E, install the sliding sleeve before mounting the gear.

4. Install gear with synchronizing components.

5. Install cup shaped spacer washer on shaft.

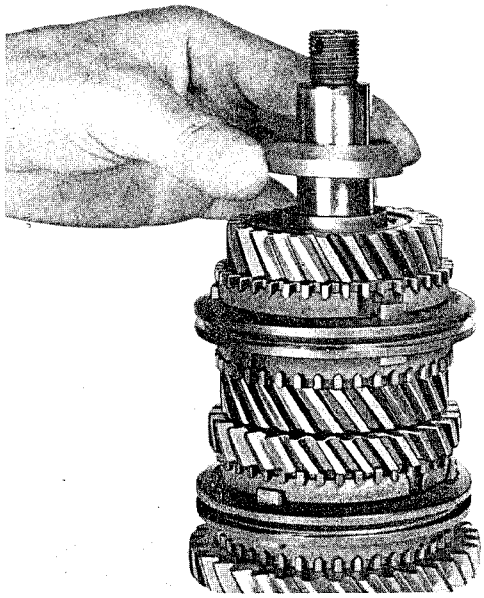

Fig. 8

6. To tighten pinion shaft nut using stand P 31 with P 31a, engage third gear.

Note

Type 741 transmission after No. 33 392 can be converted easily as described in the foregoing section. The differences lie in that a third gear needle bearing is used on a fourth gear innner race, a third gear is used in place of the fourth gear, and a cup shaped spacer washer is used in place of the flat spacer and thrust washer. The changes on the main shaft are that a third gear wheel is used in place of the fourth gear. This gear is narrower than the gear normally used and therefore requires a spacer ring.