Difficult selection, all gears

Check that the rear bearing of the gearchange tube is clean and greased, and the shaft is free in the nylon bush. If satisfactory check selector shaft for binding against the side of the casing bore. If selector is binding clean rust from selector shaft, remove rear cover, and bore out the seven stud holes to 23/64 in. (9·1 mm.) to permit better alignment of the cover to shaft. Check shaft for truth. Renew "O" ring. Coat all mating faces with Hylomar jointing compound. If still not satisfactory check for oversize synchro dog teeth, tight synchro hubs and sleeves, burrs on components or incorrectly assembled detent tube. Replace defective parts.

Difficult selection, 1st gear

Check 1st gear dog teeth, if burred—replace 1st gear. Remove the top edge of the cone by stoning carefully all the way round (See Fig. 59). This must be done whether a new gear or the old gear is used.

No gear obtainable

Check for bent selector, or seized bushes. Check for security of selector fork on shaft. Detent ball may be jammed and/or detent tube moved. Replace defective parts.

Rattle under light load

May be clutch push rod rattle caused by lazy piston in the slave cylinder. When rattle occurs check push rod for looseness, and if loose change the slave cylinder. If satisfactory check clutch for excessive run out. Max. permissible run-out ·025 in. (·63 mm.) on thrust pad face. If excessive replace clutch assembly.

May also be muff coupling rattle. Check for eccentric stud holes in clutch and input shafts. Slide back muff and line up shafts to minimise eccentricity. Check for muff circlip adrift.

In both these cases refer to the instructions under the heading "Muff coupling adrift/broken" with particular attention to the last two paragraphs.

Seizure

If any bushes are seized, check for low oil level, and oil discolouration, (See first paragraph under **"OIL LEAKS"**). If satisfactory, check for shallow keyway in differential output shaft, by ensuring that the hub is able to pass freely over the key, when in position on the shaft. If the hub fouls the key, then the keyway is too shallow, and the shaft must be changed.

May be caused by the bushes not being clamped during assembly, due to oversize chamfers in synchro hubs, 4th speed and preload washers. Replace all damaged and suspect parts.

This last item is most unlikely, but may be the answer to an obscure seizure.

End float on pinion and hypoid bearings

Most likely caused by faulty assembly. In the case of the pinion bearings, check preload washer chamfers, and also the radius on the corner of the preload washer corner on the shaft. Ensure that the preload washer is able to seat fully on the shoulder, and not be held off by a foul with the corner radius. Hypoid bearing end float can be caused by sticky screwed sleeves giving a false 'nip' position.

General notes

After removing the combined engine and transaxle unit from the vehicle, the greatest care must be exercised when dividing the two units. The transaxle must not be allowed to hang on the primary shaft in the clutch centre plate, otherwise the plate will be damaged. It is equally important that the same care be taken during reassembly.

Remember that absolute cleanliness at all times is essential, when undertaking repairs to this unit.

Check all new parts for cleanliness, remove any burrs or swarf which may be lodged in oil holes etc., and remove all sharp edges from gears, synchro cones etc., by careful stoning.