

Section J (Steering)

Page 5

ALONE as subsequent cancelling of the direction signals can be impaired.

When difficulty is experienced, examine the bottom end of the inner column and steering unit pinion for corrosion and free the steering unit from the suspension member by slackening off the four nuts on the steering unit "U" bolts.

5. Detach the two ball joints from the steering arms by removing the nuts from the tapered ball pins and using a suitable extractor, Churchill tool No. RG.284.
6. Detach the steering unit from the suspension member by removing four nuts, washers, two reinforcement plates, lower bridge pieces from the "U" bolts and collecting the upper bridge pieces after the steering unit has been removed.

When it is necessary to renew the "U" bolts, the suspension member and the front suspension brackets must be detached from the floor assembly.

7. Manoeuvre the steering unit complete with the two track rods from beneath the car through the wish-bones.
8. Re-fitting is the reverse of the removal sequence but particular attention must be given to the following:
 - i. The curved bridge pieces are fitted above and below the steering unit accommodating its cylindrical shape and offered up to the "U" bolts so the four threaded shanks locate the grooves in the steering unit and then followed by the reinforcement plates, raised edges first and the four nuts "nipped" up finger tight.
 - ii. To ensure the correct fitting and alignment of the inner column and steering unit pinion, see under "Inner column attachment".
 - iii. The convolute and conical covers must be renewed when they show any signs of damage or deterioration, see under "Convolute and Conical Covers—To remove and refit".
 - iv. Ensure that the steering unit contains its full complement of oil.
 - v. When refitting the pawl unit ensure that the cable is uppermost and the pawl, which protrudes through its fitting face, is situated centrally in the most vertical aperture of the outer column.
 - vi. The front wheel alignment is checked and set. See under "Front Wheel Alignment—To check and adjust", in the "Front Suspension, Section F".

CONVOLUTE AND CONICAL COVERS

The convolute cover, fitted to the centre section of the steering unit, is corrugated to permit the lateral travel of the two track rods. The attachment bolts of the two track rods pass through metal inserts incorporated in the convolute cover and these also act as travel stops.

The two conical covers, fitted one to each end of the steering unit, are of such a depth that they accommodate the lateral travel of the steering rack as it protrudes from the steering unit body when the steering approaches the full lock position.

The convolute and conical covers are secured to the steering unit body by metal clips and make the unit oil and weather tight.

When either or both the convolute and conical covers need renewing it is necessary to remove the steering unit complete with track rods from the car so the steering unit can be refilled with oil.

To remove and refit

1. Remove the steering unit complete with track rods from the car, see under "STEERING UNIT—To remove and refit"; clean off all road dirt.
2. Remove the conical cover(s) from the steering unit by releasing the metal clips and trapping any escaping oil in a drip tray.
3. Remove the two track rods from the steering unit by releasing the lock plate, withdrawing two bolts, strut plate and prising the extended metal bushes of the track rods from the convolute cover.
4. Slide the convolute cover off the steering unit from the opposite end to the pinion by releasing the metal clips and trapping any escaping oil in a drip tray.
5. Refitting is the reverse of the removal sequence but particular attention must be given to the following:
 - i. The conical cover at the pinion end is left until the steering unit has been filled with lubricant.
 - ii. The metal clips securing the convolute and conical covers are tightened to give an oil and weather tight joint.
 - iii. The steering unit is filled with lubricant, see under "To refill—Oil".

To refill—Oil

As some replacement steering units are supplied dry and after one has been reassembled it must be filled with $\frac{1}{2}$ pint (.3 litre) of the recommended grade of oil, see under "Recommended Lubricants—Section P".