- 5. Apply pressure to the steering rack against the damper spring and withdraw the pinion and thrust washer from the body; it is important that the thrust washer is removed at this juncture for it will foul and possibly damage the damper pad while the latter is being removed.
- 6. Still applying pressure to the steering rack against the damper spring, move the rack into the body until its end is clear of the damper pad; withdraw the damper pad, washer and damper spring through the closure cap aperture.
- Withdraw the steering rack from the pinion end of the body, thus the steering rack teeth will not score the bush in the opposite end of the body.
- 8. Reassembly is the reverse of the dismantling sequence but particular attention must be given to the following.
  - i. When either of the studs are loose or have been renewed, they must be tightened to a torque of 3.5 lbs. ft. (50 kg. cm.).
  - ii. All parts are assembled with a liberal coating of the recommended oil, see under "Recommended Lubricants, Section P".
  - iii. Any paper joints, included in the original shim pack, must be discarded and replaced with metal shims. Before the shim pack is fitted, each shim must be coated with jointing compound; similarly the rim of the closure cap is also coated with jointing compound.
  - iv. The thrust washer, flat face downwards, pinion and upper bearings are fitted to the empty body without the shim pack. The oil film is broken and the pinion seated by gently tapping the splined end with a mallet. Measure the gap between the upper bearing flange and the body, select a shim pack .001 to .004 in. (.02 to .10 mm.) THICKER than the measured gap with a preference for the lower limit. The upper bearing pinion and thrust washer are now removed from the body.
  - v. The steering rack is fed into the body, plain end first, so the groove aligns with the damper screw tapping; the damper spring, washer and pad are

fitted and compressed so the steering rack can be moved outwards from the pinion end when its groove will accommodate the tongue of the damper pad.

- vi. Partially position the thrust washer, flat face downwards, on its seat and insert the pinion; while applying pressure to the steering rack against the damper spring, the thrust washer will move fully onto its seat as the pinion goes home. Fit the shim pack and upper bearing, tighten the nuts to a torque of 3 lbs. ft. (42 kg. cm.).
- vii. The bolt heads of the metal bands securing the convolute and conical covers are positioned vertically downward and behind the body when the steering unit is in the fitted position, the centre line of the pinion is inclined rearward approximately 40°; the conical cover at the pinion end is left slack until the track rods have been fitted and the steering unit filled with oil.
- viii. Fit the damper screw, seal, washer and locknut and set the damper pad endfloat by traversing the rack to its tightest spot, tightening the damper screw until it contacts the washer and slacken off the damper screw and locknut ½ a flat to obtain .003 in. (.08 mm.) damper pad endfloat. Hold the damper screw steady while tightening the locknut to a torque of 3.5 lbs. ft. (50 kg. cm.). The closure cap is pressed in, recessed side first, until it becomes flush with the body.
- ix. Check that the starting torque to rotate the pinion to the full lock position in both directions does not exceed 14 lbs. in. (15 kg. cm.).
- x. The adjustable track rod is fitted to the right hand side of the steering unit, both track rods are set parallel to the centre line of the steering unit and the bolts tightened to the torque given in the "General Data Section".
- xi. The steering unit is filled with oil through the pinion end and the conical cover refitted, see under "To refill—oil".
- xii. The steering unit is stored flat with the pinion pointing upwards, thus minimising oil leakage.