# STEERING GEAR

## DESCRIPTION (See Figs. 1 and 2)

Steering is effected by a separate column assembly, a rack and pinion steering unit with two track rods of equal length making the connection between the steering unit and the steering arms included in the two stub axle assemblies.

The steering column is mounted on the floor of the car and supported by a bracket beneath the instrument facia. The inner column is attached to the splined end of the steering pinion at the lower end and supported at the opposite end by a bush in the top end of the outer column.

Mounted on the steering column is the direction indicator pawl unit which is actuated by a "striker" within the column and cancels any direction signal that might have been given as the steering wheel returns to the straight ahead position.

The rack and pinion steering unit is mounted on the rear support bracket of the front suspension beneath the front of the car. The two track rods operating the steering are attached directly to the steering rack at inner ends and the steering arms included in the stub axle assemblies at the outer ends.

The length of the right-hand track rod is adjustable for the purpose of setting front wheel alignment (toe-in).

## ROUTINE MAINTENANCE

Maintenance checks will be required at regular intervals as given in the "Owner's Service Book" or "Owner's Handbook" and will include the following:

i. Checking the alignment of the track rod ball joint sockets and tapered ball pins.
ii. Checking the security of the steering columns, steering unit, track rod ball joints and steering arms.
iii. Checking the steering unit for oil leakage.

## STEERING WHEEL

The steering wheel is of the horizontal two spoke dished type and mounted on the upper end of the inner column by a taper, parallel splines and secured by a nut. There are 36 parallel splines, thus a 10° variation in steering wheel position is available.

An oblong shaped motif is mounted in the top of the steering wheel centre and its own centre blends with the two horizontally positioned spokes.

### To remove and refit

1. Prise the motif from the centre of the steering wheel and collect the two spring clips from the motif or, on certain cars, the two holes in the steering wheel hub.

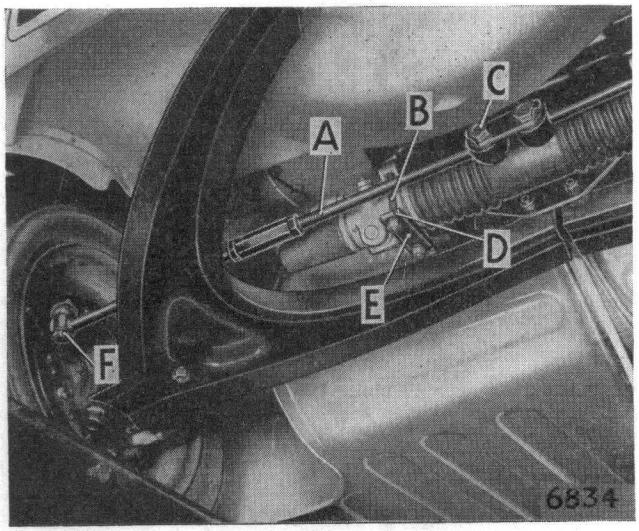


**Fig. 1.** *Underneath view of right hand side of steering layout*

A ADJUSTABLE TRACK ROD
B "U" BOLT
C TRACK ROD BOLT
D LOWER BRIDGE PIECE
E REINFORCING PLATE
F BALL JOINT

2. Remove the steering wheel nut from the inner column.
3. Identify the position of the steering wheel to the inner column to facilitate re-fitting; remove the steering wheel from the inner column. Hammer blows are forbidden as the inner column pinch bolt and steering unit pinion can sustain damage.
4. Re-fitting is the reverse of the removal sequence, but particular attention must be given to the following:
   i. The steering wheel is fitted according to the identification marks on the steering wheel and inner column.
   ii. When a replacement steering wheel or the original steering wheel is being fitted to a new inner column, position the front wheels in the straight ahead attitude by setting them parallel to the rear wheels. Offer up the steering wheel so the two spokes are horizontal (sighted to the instrument binnacle) and lower, for right-hand drive cars, onto the nearest spline in an anti-clockwise direction but, for left-hand drive cars, in a clockwise direction.
   iii. Fit the two spire clips to the short underside edges of the motif or, on later cars, in the oblong shaped holes in the steering wheel centre and press the motif home.