8.0 Steering

8.1. HIGH RATIO RACKS

There are several types of steering rack for the Escort range, starting with the standard rack giving 3½ turns lock to lock. This rack (like its high ratio counterpart) has three different specifications - and here some history is needed. When the Twin Cam was introduced, it was decided to fit the 2000E gearbox, necessitating use of the old l05E bellhousing and hydraulic clutch. With this bellhousing, the starter motor is positioned on the right of the engine, viewed from the driver's seat. Unfortunately, this meant that the steering column knuckle fouled on the starter motor, so for all rhd cars, a "long post" rack had to be introduced. This raised the height of the steering knuckle above the starter motor, and gave rise to the long post rack. On lhd cars there was, of course, no problem. Finis code numbers for these standard racks (geared to give 3½ turns lock to lock) are: (1) Rhd - standard, 151 2342, for use on all Escort with non hydraulic clutches. (2) Rhd - long post, 150 3807, for use with 105E bellhousing (Mexico, RS1600). (3) Lhd - standard only, 151 1343.

Obviously, the problem of the starter motor position doesn't change when you swap over to the higher geared competition rack, which gives 2½ turns lock to lock, and is essential for competitions. Remember, though, that you will also have to hold the steering wheel tighter, as the kick back when bitting bolders or hidden holes is greatly increased.

The various high ratio steering racks available from RS Parts are as follows:

Escort I

LHD		905 2056
RHD	long pinion TC/RS1600 /Mexico	905 2057
	short pinion GT/Sport/RS2000	905 2871*

Escort II

LHD	905 2872
RHD	905 2871

*Use - track rod ends	156 4468)
lock nuts	147 2933) Mainstream supply

When buying a new rack there's one other point to note. The shaft coming out of the rack to link to the steering column via the knuckle coupling has changed design over the years, so make a note of the one you remove to get a similar replacement. The difference is in the spline arrangement and earlier racks having a complete flat on one side for the knuckle pinch-bolt, whereas later racks have one groove running round the shaft.

For anyone converting their car from cable to hydraulic clutch, there is a small tweek that will prevent you from having to buy a new steering rack as well as all the other bits. By fitting a steering knuckle from the Triumph Toledo (and therefore the Herald) you can retain the short pinion with just enough clearance against the side of the starter motor. Boreham currently use a very solid steering

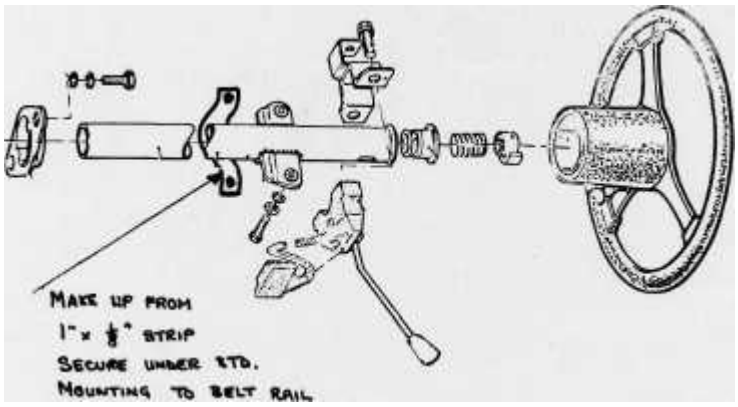
joint, which is, in fact, a sturdy U/F and is available from Rallye Sport Dealers under finis code No 905 4084.

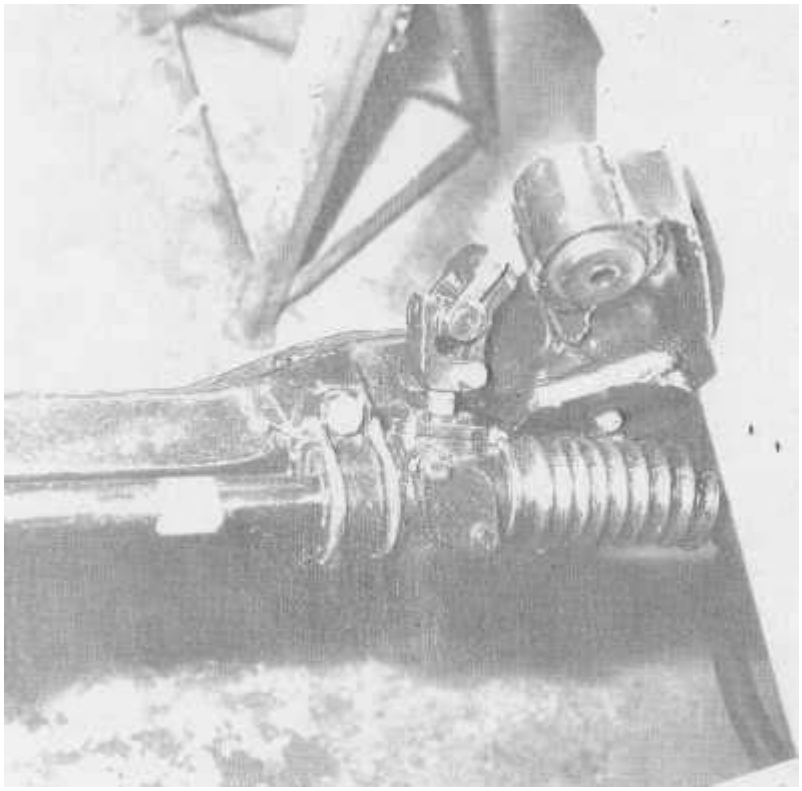
8.2. STEERING COLUMNS

One of the more sensible rules of stage rallying is that steering lock mechanisms should be removed, or made inoperative for cases have been known of locks jamming. Ideally for this, you should get hold of an early Mk I shaft, but, if you can't get hold of the earlier column, the plunger hole can be filled with weld, or an insert welded in place and filed to fit. The best way of doing this is to simply remove the steering lock and saw off the plunger. There is then no way that the steering can become locked.

Because the Rallye Sport joint is longer than the standard Escort item, cut off the last 3/8" of the steering shaft (which, incidentally, is a Mk I shaft) around the groove located at the bottom of the splined section. Use a Mk II outer steering column, which does not require any alterations, together with a Mk I bottom bush. The trick here is not to put on the Circlip normally located directly under the bottom bush, and to machine off the raised portion on the shaft around the steering lock slot. This enables you to loosen the bottom steering joint pinch bolt and pull the steering shaft up, allowing easy removal of the steering rack.

The only other deviation from the standard steering system is something that anyone who is stage rallying should carry out. Where the outer steering column joins the dashboard underside, two mounts stick out from the column, through which ¼ UNC bolts pass to thread into captive nuts on a sliding bar arrangement on the inside lip of the dash panel. Now these mounts have been known to break off after hard use, so as a safety measure, make up a strip of 1" x 1/8" steel to shape and run it under the column from the existing bolts. This is well worth the effort - trying to steer with the column on your lap won't produce outstanding stage times.





Steering rack on works car. Note wire locking on rack retaining bolts