## "If all else fails, read the manuals"



by Alvan Judson (Fletcher, North Carolina, USA)

This article is a **reminder** to those that are already familiar with the correct steering rack mounting on an E-type and is also **essential new safety information** for those who "haven't looked at their car" or are blissfully unaware of the correct set up.

Recently I lost all steering on my 1965 Series 1 E type roadster. I was traveling at about 35 mph along the main street of a small town in South Carolina.



I'm sure many or even most of JEC readers have experienced brake failure, tyre blow outs, collapsed suspension and even an engine seizure but, I can assure you, total loss of steering does really get your attention.

I stopped the car safely though not in a straight line and then by reversing against the camber angle and driving forward with the camber angle, I was able to guide the car to the side of the road rather like judging a put on a non-level green. To the onlookers I must have appeared to be the original "Reginald Molehusband" type of incompetent driver who had no idea what he was doing.

After raising the bonnet it was soon obvious that the steering rack had parted company with the frame because both sets of "*metalastik*" rack mounting plates had failed.



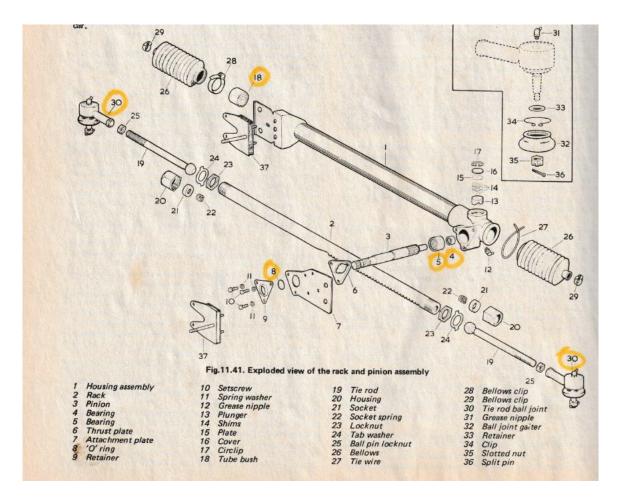
That's the point where you smack your forehead with your hand and realize that someone failed to install the safety bolts, washers and distance pieces that hold everything together in case the rubber in those mounting plates does fail. In my case that "someone" was <u>me</u>, 18 years ago, but there may be mitigating circumstances.

A) The Haynes Manual has a wordy description of the correct set up for the mounting plates in Section 28 of "Suspension and Steering" as follows:-

"....be sure that the spacer tubes on the pinion side of the assembly are refitted and the nuts fully tightened. The mounting on the opposite side must be adjusted as follows:

Tighten the self locking nuts securing the two outer bolts until the flat washers under the bolt heads can be rotated by your fingers. Hold the nuts in this position and then screw up the locknuts and lock."

Their exploded view of the rack and pinion assembly, Fig 11.41, does not even show any bolts, washers or spacer tubes. (nor does the same illustration in the ""Complete Official Jaguar "E"" published by Robert Bentley Inc.)



B) I bought my car completely disassembled with many unmarked cardboard boxes and pretty well all its fasteners in a big plastic bag.



So, while rebuilding the car, I had simply bolted one face of each of the "*metalastik*" plates to the frame and the other face to the rack. Everything looked just fine though, in reality, it was a sort of motoring time bomb.

C) I suspect that almost every E type on the road today has, at some time, had its steering rack mounting plates replaced; removed/cleaned/painted and re-installed or changed when a replacement steering rack came with them already fitted to it.

Further reading on the E type forum under "Steering Rack Failsafes" revealed a lot of talk about what should or should not be done until, refreshingly, a gentleman named Andrew Bowie from Adelaide, Australia summed it all up with a very nice illustration of how the non-pinion side should be set up. It's an illustration that



Thanks for reading. Please go and check your car. Stay safe.