



## STEERING RACK COMPONENTS

- |                                     |                               |
|-------------------------------------|-------------------------------|
| 1. Pinion                           | 6. Track rod                  |
| 2. Steering rack                    | 7. Clip - gaiter to track rod |
| 3. Bolt - steering rack to mounting | 8. Locknut - track rod end    |
| 4. Clip - gaiter to steering rack   | 9. Track rod end              |
| 5. Gaiter                           |                               |

### RV8 steering rack

Gerald Wright has an RV8 in Zimbabwe and has provided some interesting feedback on his experience with maintenance on his steering rack.

The rack is original on an untouched low km car (26,000km) and there was grease present on stripping, but on a steel shaft and bush the lube will be pushed out of touch with use. Even with a small amount of clearance, without a pressure pad it will rattle on a less than smooth road surface. The rubber gaiter is undamaged and original.

The refurbishment of the rack used a replacement **Vesconite bush** and you can have a very close fit and a 90-95% contact area, the balance being for air transfer. It self-lubes but he still drilled and grooved it and fitted a grease nipple at both ends.

Even if there was play present in the rack with this material it would not be noisy. The steering is now lighter, smoother and silent and is a pleasure to drive. I feel the RV8 rack is a poor affair compared with those in older cars and this modification is just a problem cure. It would be better to fit a decent rack.

### What has Clive Wheatley seen with RV8 steering racks?

Clive says the problem Gerald Wright has highlighted is one he has seen and even new racks have had no oil, they are often dry as a bone. At his workshops they have had to check a number of racks for sufficient lubrication. But Clive has become **increasingly concerned over the quality of some of the replacement racks** supplied in the parts market.

Where Clive needs RV8 steering racks rebuilt he now goes to a local specialist in the West Midlands who rebuilds steering racks to a high standard, including racks for a local Jaguar specialist. He uses sintered bronze bushes and checks the rack bar is straight and usually fits a new slipper pad and a new bush. He also ensures the rebuilt rack is well lubricated too.

Clive agrees fitting a grease nipple would be useful and plans to discuss that with his specialist but inevitably that will increase the cost of a high quality rebuilt rack. Most maintenance sources suggest EP90 oil should be used in the rack, but Clive's rack refurbishment specialist uses his own mix of light to medium oil and grease which he finds is better at remaining on the rack.

### Vesconite bushes

Clive was very interested in the self lubricating Vesconite material Gerald Wright mentions he has used in his RV8 steering rack and has made enquiries which included speaking with the supplier's technical department in South Africa to learn more of the material, its self-lubricating characteristic and its availability. It can be bought by the metre and around 7cm of the material is needed for a replacement bush. You can see information on Vesconite self-lubricating bearings and bushings on their websites:

<http://www.vesconite.co.za/>  
<http://www.vesconite.com/uk/>

### Example of a poor quality reconditioned steering rack

Clive has serious concerns over some cheap reconditioned racks which are available from some parts suppliers. His two photos below show a rack has a casting at one end and a steel tube linking to a casting at the other end. The photos show a poorly repaired rack bar which was supplied by a "so called reconditioner" who had chiselled the ends of the bushes over with a cold chisel to take up any slack. Clive says that in this situation the old cliché applies – "you only get what you pay for".



Poor quality work with the pinion there and seal inside.



View at the rack bar end on the nearside.