

# **TECHNICAL DATA SHEETS**

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**Introduction** – It is common for the power steering racks fitted to 2.8 injection and 3.0L Capri's to feel as if the power assistance is not balanced, in other words it is easier to steer one way than the other. In some cases; mine included, the unbalance can be so bad as to feel if there is no assistance turning right but over assistance when turning left. The usual cure has been to replace the rack with a new unit costing around £120 plus all the hassle that goes with it only to find the problem still exists but in a different manner.

The actual problem lies within the rack itself and is generally due to slack assembly methods at the point of rack manufacture and can be resolved quickly and with no cost, except your time.

**Adjustment** – The valve that needs adjusting lies at the end of the pinion shaft and is adjusted by removing a locking tab and moving the inner race clockwise or anticlockwise with respect to the outer race.

Start by jacking up the front of the car and removing the road wheels while supporting the car on axle stands. Disconnect the track rod ends but don't unscrew them from the rack otherwise you'll need to reset the tracking, I find the best way to get the track rod ends off without knacking the joint or rubber boot is to remove the split pin and nut and then apply downward pressure on the track rod end stud, with this done use a hammer to strike the part the track rod end goes through, with a good pressure and a good hit they will separate quickly; usually by the third hit.

Now start the engine, the steering wheel will move fully to one direction depending on which way it was easier to turn when driving on the road, stop the engine. On the rack remove the two bolts holding bearing cover in place (this is the domed pressed steel one at what looks like the end of the steering column and NOT the 6mm thick steel one) and withdraw the cover; expect oil to come out. Remove the locking tab by carefully bending the tabs forward then remove the nut and the locking washer.

Turn the inner race  $\frac{1}{4}$  turn anticlockwise if the steering turned left or  $\frac{1}{4}$  turn clockwise if it went to the right, now refit the locking washer and nut and nip up the nut to retain things then refit the cover and two bolts. Centralise the steering and start the engine again, take a note of which way the steering turns and how quickly, by comparing this to the first time you can estimate how much further the inner race needs to be turned. Repeat this until the steering does not turn by itself when the engine is started and feels balanced when turning by hand. When you are happy remove the cover and refit the locking tab, by this time you will have destroyed the gasket so fit another homemade one or use instant gasket then fit the cover and two bolts.

You will need to replace the oil that came out, use a syringe to force 200mL of oil under the steering rack gaiter where it joins the track rod and then slowly turn the steering fully left and right to distribute the oil; use ordinary engine oil as this is for lubrication only, the steering rack hydraulic system has not been disturbed.

Refit the track rod ends and wheels and test. If it was anything like my own car you'll be amazed at the difference the driving experience is, all for free. My thanks go to Peter Gibson for telling me how to do this and I pass this information in good faith.