

TRACK ROD BALL JOINTS

HINTS AND TIPS

From Tom Lucas:

Wibble Wobble - Toil and Trouble !!

This story relates to a steering problem that I experienced with my bog-standard T985 2CV Charleston. However, it could just as easily have been my special, or yours.

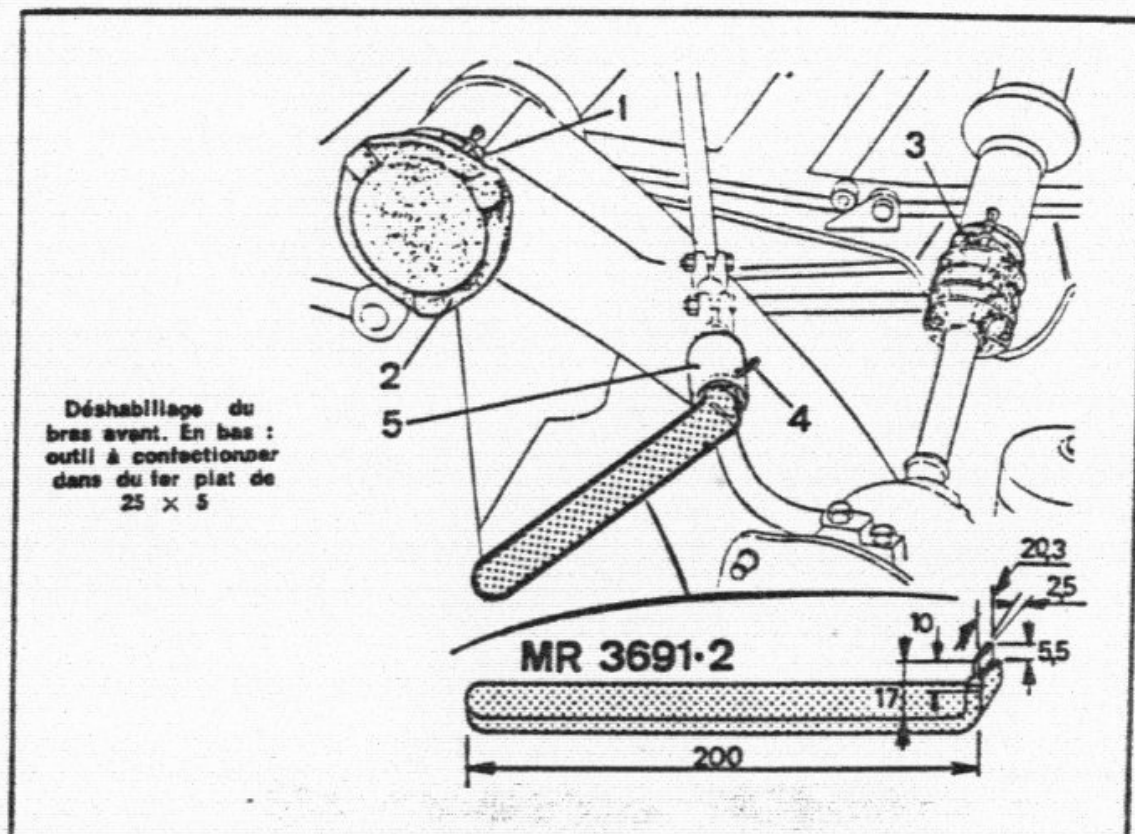
About a month ago I noticed that the front of the car would vibrate a little after the offside front wheel had hit a pothole at about 40 MPH. As time went on, the problem became progressively worse until it was impossible to travel at 40 without this happening. Once the car had 'got a wobble on' it would take anything up to a hundred yards to damp out if travelling in a reasonably straight line. Slowing to below 40 or accelerating to above 50 MPH would stop it, as would steering round a corner. I knew that the offside front tyre was unbalanced, so I had both front wheels professionally balanced. However, it didn't help much and the problem continued almost as bad as before. I then fitted new front shock absorbers (fortunately I had a new pair that I had previously bought at an autojumble) This didn't seem to make much difference either. I took the car over to Calais, France for the day with a mate of mine in the passenger seat. We had a couple of really nasty 'wobble' incidents on the motorway coming home. As it was a three hour journey, we had plenty of time to discuss the problem and both came to the conclusion that it was a worn driveshaft joint behind the front offside wheel.

The following weekend, I sorted through my collection of secondhand driveshafts and fitted a good one made up from two (the old one WAS worn). Front wing off, 'new' driveshaft fitted, car reassembled - off for a road test. Still no better ! In desperation I contacted a 2CV specialist for advice. I explained the problem, and the chap told me he was sure that it was worn steering ball joints. I had previously jacked the car up and checked them for play but they seemed to have no excessive movement, so up to then I had discounted the idea that the problem lay there. There certainly wasn't any abnormal play in the steering rack. A strip-down revealed all. The balls, which of course should be perfectly spherical, had actually worn egg-shaped. The 2CV specialist told me what I would find, and he was correct. As a temporary measure, I dressed the offending ball with a file, lubricated and adjusted the joint - resulting in the problem being 95% better than previously. I ordered new balls (which come as part of the steering levers), plus all new cups, springs, castellated nuts and rubber boots. Just for once I had to pay full price (you could search autojumbles for years and not find this sort of item) and it cost me roughly £120 ! Not cheap ! With the parts fitted, the car now handles and steers perfectly. The reason that I was unable to detect any free movement without dismantling, was that the ball joint cups are spring loaded and the spring tension disguises the wear.

Lessons learnt include the fact that you can't check the 2CV track rod ends for play without dismantling. I was also advised that the best way of getting the castellated caps undone is to tap the four segments between the slots with a hammer and flat punch before attempting to undo them. This 'breaks' the rust in the threads (remember that the track rod ends live behind the front wheels where they get sprayed with rainwater and road salt) and the caps can be removed with ease. You will need to make a close-fitting tool to engage in the slots, but a piece of mild steel flat strip will suffice. If you 'break' the threads first as described, you won't need to apply enough force to damage a mild steel tool.

Look again at the third paragraph above - 'I dressed the offending ball with a file'. as it occurred to you that I shouldn't have been able to do that ? The steering balls should be so hard that a file would glide off without making a mark, and a grindwheel might be more appropriate. But they weren't and the file didn't. Apparently, the steering balls were originally made of hard material and wear was almost unknown on earlier cars. But later on, when cheapened the specification with the result that the balls wear out rapidly. Fortunately, the only steering arms/balls you can now buy are to the interior spec. So

what can you do about it? I was actually told to dismantle and re-grease the joints annually (using CV joint grease) - something which doesn't appear on any Citroën servicing schedule - to ensure that the new assemblies last. I was chewing this problem over with a fellow member when he came up with a brilliantly simple solution. He told me that he had drilled and tapped the centres of the castellated caps to accept grease nipples. He placed a small nut behind each nipple before screwing it in, because any protrusion of the nipple INSIDE the cap would interfere with the cup outboard of the ball. This strikes me as a very sensible modification since the grease nipple would be largely shrouded from any direct rainwater spray, and interestingly there is already a suitable grease hole in the centre of each ball cup. It is almost as if Citroën were toying with the idea all along!



**If you get cramp in your legs in bed at night,
.....curl your toes up!**

P. Cook, Watford

Keep you CV joints well greased!

RECONDITIONED ones are £100 per pair, per side, ie. £200 per car!!!

If YOU have any good second hand ones ...please contact your Editor.

We have almost no 'Hints & Tips' - If you have ANYTHING, please send it along, otherwise I shall have to run some from old editions that our newer members may not have seen.

Ed.