



The majority of these tips have appeared in club newsletters over the years. Please note that you use them at your own risk as neither the Bristol Austin 7 Club nor the authors can be responsible for the results of trying to follow the instructions given.

Steering arm - front axle - by Ron Hayhurst and also including an article by John Bowring

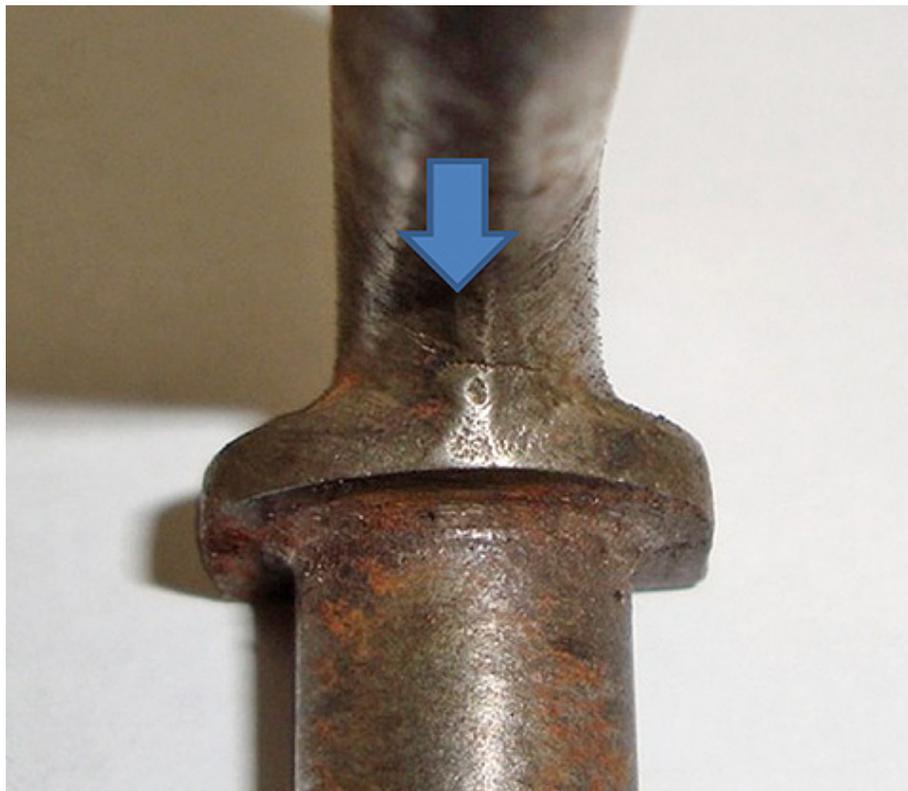
In September 2002 the few known instances of complete failure of this vital item were given a good airing amongst the Austin Seven fraternity. The advice for all members was to check the arm for cracks and/or buy a new one. The advice is as relevant today as then, especially as many new members have joined since that time and may be unaware of this potential problem and the simple checks that can be made to find the tell-tale cracks, long before complete failure takes place. Hence no apologies for again publishing the following article by John Bowring of the Victoria Club who sums up an appropriate initial test below. A more searching MPI* test should be made if uncertain but the main answer to such uncertainty is to buy a new one - see the note at the end of the article.



Article by John Bowring - starts

Fix the steering arm in the vice so that the inside radius of the arm is uppermost and so that you can work on said radius with a rat tail file. File the radius with a rolling action until you have removed the forging ridge and the area either side is smooth. Now you need some emery ribbon about 200 - 240 grit, some 12 inches long and about 1 inch wide. Tear the width in half and with the steering arm still fixed in the vice, holding emery ribbon at each end, rub the inside radius until it is smooth and free of file marks. This should take about 3 - 5 minutes. Inspect the radius to see that it has a smooth and even flat finish. You might use the other piece of emery ribbon to achieve a good result.

Now pick up your aerosol can of CRC or WD40 and spray the radius - a good 10 second blast should do the job. Remove the arm from the vice and through the hole that normally takes the ball joint, insert a screwdriver, as long as you have, that will fit through the hole. Holding the screwdriver by the handle, so that the shaft is horizontal, the steering arm should now be able to swing on the shaft of the screwdriver. Now holding the screwdriver in your left hand, pick up with your other hand a steel hammer and strike the outside radius of the steering arm with a blow sufficient so that it will rotate a few times. Repeat this 2 or 3 times always on the outside radius. Now look at the inside radius, the one you just filed and emery papered and sprayed - what do you see ? ! !



Arrow marks the crack !

Hopefully you will see nothing, but in my 50-odd years with A7s - 9½ out of 10 steering arms are cracked.

Article by John Bowring - ends

New steering arms are now around from A7 Components whose proprietor is David Cochrane. If you visit his web site at www.a7c.co.uk you will find a link to the article in the A7CA magazine 2004B in which he describes the problem in detail. It shows the great deal of trouble he made to get the design and manufacture to the highest standard and we all owe him a debt of gratitude for the work he put in on this subject. David, who is a keen Austin Seven man, is available on 01788 522033.

Another similar fatigue problem came to light on www.austinsevenfriends.com in January 2011 and concerns all A7 models with the 1936 39 type steering box. It is the only reported failure so far and as it was on a special, it's just possible that the failed drop arm had had a chequered history. The failure occurred just above the tapered boss which takes the ball pin swivel. If you want more detail visit the above web site, search for "Steering Box" and look at "Ruby Steering Drop Link" for the period between 10 and 13 Jan 2011.

*MPI:- Magnetic Particle Inspection - whereby the component is attached to a very strong (electric) magnet and pasted with very fine iron filings suspended in a paraffin solution or similar fluid. The iron particles collect along the line of any crack.

Second hand steering arms are no longer sold from BA7C spares. Any coming our way are scrapped. Should anyone want further help on this topic feel free to approach any committee member who will be happy to answer questions or will find someone who can supply more detail.

Ron Hayhurst

Photographs by Steve Barker