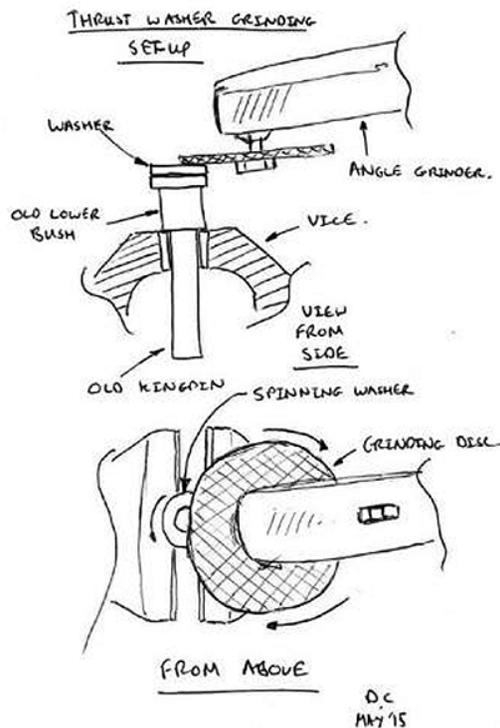


The majority of these tips have appeared in club newsletters over the years. Please note that you use them at your own risk as neither the Bristol Austin 7 Club nor the authors can be responsible for the results of trying to follow the instructions given.

### Kingpin thrust washers - surface grinding - by Dan Cole

When rebuilding the front axle on my Ruby I found that the standard shim washer supplied with the king pin kit was very slightly too thick (a quirk of my axle and in no way a criticism of our trusted suppliers). I have the use of a Jones and Shipman surface grinder at my work place but this seemed a bit of an over-kill so I set about finding a way to do the job with the tools that lay at hand in my humble home workshop.



It is important to reduce the thickness by a consistent amount across its area so static application of a grinder would not be any good. After a few moments a solution came to mind ... One of the old scrap kingpins was retrieved from the scrap bin along with a lower bush. The bush was slipped over the king pin leaving approximately the thickness of the thrust washer protruding. The washer was placed over the king pin such that the top surface of the washer and kingpin were now flush. The pin was firmly held in a vice done up VERY tight. An angle grinder was then used with the flat bottom of a grinding disc over-lapping the washer by approximately 50% area when viewed from above. It is very important to touch down very carefully but firmly with the grinder but once in position the washer dances around at high speed and is gradually but evenly reduced in thickness as it spins spraying a spectacular show of sparks. The top of the pin gets grazed but this does not matter since it is scrap anyway. I only did this in brief bursts to allow the washer to cool off and a check on the thickness to be made.

After a few goes it fitted nicely with minimal clearance. On one occasion I touched down unevenly with the grinder and sent the washer flying up the driveway into the night so be wary of this as they are hard to find. (I did this on an outside bench to avoid getting abrasive particles and metal dust all over the workshop!). The surface finish is surprisingly good with a radial 'swirl' pattern but could be further improved with light stoning. The diagrams hopefully make the set-up clear.

As with any grinding operation great care must be taken; the work must be fixed securely, eye and hand protection is essential and ear defenders are recommended. I am not suggesting this method will suit everyone, you need a steady hand and good eyesight (for retrieving stray washers!) but should you need to grind down thrust washers it certainly works and was a satisfying 'bodge'.

Owning a Seven is particularly joyful if you are able to enjoy your garage time as you enjoy your driving !