

There are Wheel Studs and Real Studs

We all know by now that the British car industry has sometimes done things which we would not do today and unfortunately it takes some time and a lot of practice to unearth some of these.

A case in point. Rear hubs fitted to TR's came with the optional wire wheel adaptor which is probably the most common in our world. The standard was for steel wheels, however therein lies a secret which is only revealed when one tries to retrofit either option.

One of the smarter ideas incorporated in our cars is the use of an adaptor for wire wheels rather than a different hub, however this comes with a compromise. The wire wheel adaptor requires a shorter stud length and a half nut in order to clear the inside of the wire wheel. All good so far.

Then things get a bit ordinary. For reason only know to... well who knows.. they use a threaded stud which has a 1/4" long 7/16" UNF thread on one end, a collar and then a long 7/16" UNF thread for the wheel nut.

The design calls for the stud to be installed and then welded at the back, which calls for removal of the axle. All good so far.

Now let us move along a bit and decide to fit steel wheels or in some cases modern MAG/Alloy wheels which require a longer stud length, even when using alloy wheels with the recessed nut style. A quick search reveals that such things are made and available off the shelf. (NOT at the Register)

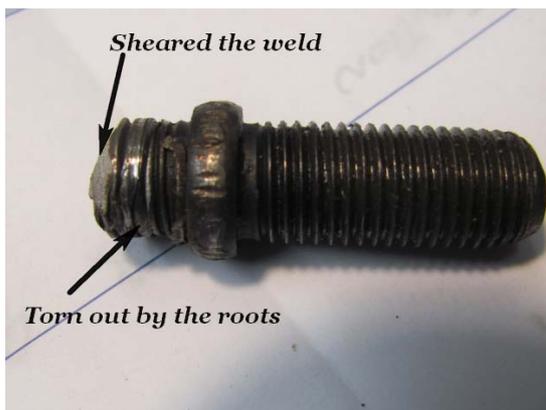
Fitting is as before with removal of axles, un-welding, insertion and welding etc.

The problem for young players like me is the difference in torque required for each of these applications and the ability of the Studs to provide same.

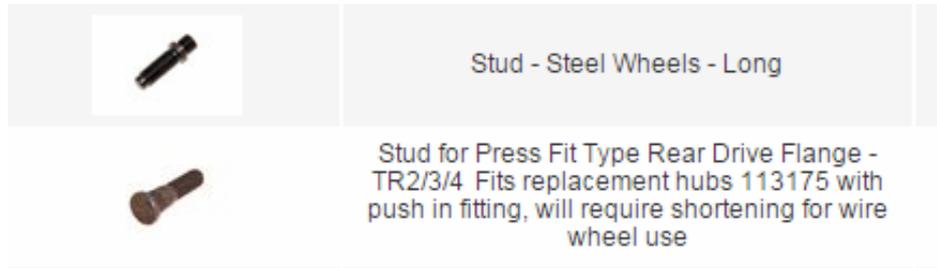
The original stud for use with wire wheel adaptor specifies 45 to 55 FtLbs, which is up near the limit of a 7/16" UNF thread with only about 1/4" penetration. A 7/16" UNF bolt with a full nut on the other hand would have up to 80FtLbs applied.

The interesting part starts when one looks up the specified torque for steel wheels @ 80 FtLbs and **Alloy wheels @ 100FtLbs.**

The inevitable happened when someone replaced a Mag wheel after tyre work.



So the search begins for a solution. Obviously not a re-run of the original as we now do not have thread in the drive flange.



We soon find that a normal style of flanged wheel stud is available from leading TR suppliers in the UK who use them on Modified Drive Flanges, so this problem is not uncommon.

There is no need to go to TR Specialist as Studs are universal, however the smallest dia spline is 12.2mm so one has to use a 15/32" drill on the old threaded holes.

A bonus is that it is also possible to pull the new stud in, once shortened to 40mm without removing the axle.

These are stocked by Repco and Cost less than \$5.00.

Pull the stud in using the nut supplied reversed and with a washer large enough to clear the spline as the nut will foul the shank when fully drawn through. Oil the washer!



I never thought about it enough but clearly it is important to be careful about how tight Alloy wheels are done up on TRs to avoid this sort of thing happening. I was fortunate to be able to rectify the problem at home but would hate to think of the inconvenience of being in a far away place.

With regular checking of the wheels I do not think 65- 70 FtLbs on my MAG wheels will be a problem particularly with both the thread and the flat surfaces being greased to reduce friction.

If you are thinking of fitting Disc or Alloy wheels to your TR, I would recommend that you use flanged and Splined Studs rather than the originals for less than half the cost and effort with a better outcome.

Happy motoring.