Replacing Cracker the TC's Wire Wheels with Triumph TR6 Steel Wheels:

Not a modification to everyone's taste but I just don't like wire wheels or the splined method of fastening them. First a confession; having owned six NG's I got mixed up with the different rear axles and believed that Cracker was already fitted with the wide steel wheel axle, as it turned out this was wrong but I decided to proceed anyway: the fallback position was to restore a spare wide axle and use that, but in the event it was not needed as I decided to use wheel spacers to replace the lost track.

Note.
The wire wheels have a larger offset so the use of wheel spacers will not result in a significant increase in wheel bearing loading. The TR6 wheels also have a larger off-set than standard MGB steel Rostyle wheels so you could get away without wheel spacers, but fitting TR6 steel wheels (and MGB steel hubs) to the front will increase the front wheel track so fitting spacers will match the rear track to the front track. If fitting TR6 steel wheels to a wide steel wheel axle then wheel spacers are not needed.

Recalibration of speedo:
Changing from MGB 14" wheels to TR6 15" wheels with the same aspect ratio tyres will increase the rolling radius and make the speedo inaccurate. I could of course fit lower profile tyres and retain the original rolling radius but I hate low profile tyres more than I hate wire wheels. With the demise of Speedograph Richfield the choice of instrument restorers is limited and the quoted cost to recalibrate the speedo was circa £240. After due consideration I decided to do as recommended by Forum members Chris Hollier and Mark Sadler and have a GPS speedo for accuracy and retain the original, inaccurate speedo for authenticity (plus the main beam warning light) this does mean the odometer is not strictly accurate, with limited mileage insurance the odds are in my favour, but won't be utilised as I have a generous annual mileage allowance.

Note.
Road testing after conversion revealed that the speedo is under reading by circa 3mph; e.g. at a true 30mph the speedo is reading 27mph so if you drive at 30mph on the speedo you are doing a true 33mph, probably not enough to get you a speeding conviction but something you need to be aware of. Additionally the odometer is under recording by approximately 6 miles in every hundred so for every thousand miles recorded the car will have done circa 1060 miles.

Trial Fitting:
Trial fitting a TR6 wheel and centre disc to an MGB hub revealed a snag, the MGB wheel nuts are 1/2" UNF x 20 and TR6 wheels nuts are 7/16" UNF x 20, fortunately the TR6 wheels are drilled 1/2" so fit onto the MGB hub studs, but if you want to fit the centre discs (and possibly dummy spinners) you have to use TR6 style wheel nuts.

Pre-Work.
The 'new' steel front hubs were stripped out and then all four hubs were thoroughly cleaned, stripped of paint and surface rust and painted black. Next the front hubs were rebuilt with new bearings and seals. ***(See Article - 'Reconditioning Front Hubs' for details of this job).***

Wheel spacers:
I obtained my rear wheel spacers from.
Superforma
Stadson Grange
Holsworthy, evon
EX22 7YB
01237 431 929

Who also trade as 'SFP Engineering' on eBay. They offer bespoke sizes as well as various width options as standard for MGB hubs.

Note.
The standard bore diameter for a Rostyle wheel is 73mm whereas TR6 wheels are 68mm so standard MGB wheel spacers are not a direct fit and need the appropriate machining.

The decision was made to use 25mm thick spacers with their own wheel nuts. After contacting 'SFP Engineering' they made me some purpose built spacers from aircraft grade aluminium, the cost for the pair was £90.39 (normally £110.99 but I had a discount code). 25mm is actually one of their standard sizes but they make all their spacers to order (ten day lead time) with your choice of wheel studs and pcd (pitch circle diameter). Both MGB and TR6 steel wheels are 4-1/2" pcd.

The two spacers at 25mm each will refund me 50mm (approximately 2") of my lost track. The greater offset of the TR6 wheels will cater for an extra 10mm on each side giving an overall track increase of approximately 70mm (2-3/4"). So compared to an original MGB rear wheel track I've gained 6.5mm each side, which compares favourably with the 10mm increase at each side on the front. 'Confused? So was I so don't worry about it!'

Note.
I am not normally a candidate for fitting wheel spacers to widen the track as it can increase wheel bearing loadings, but the MGB axle is designed to accept the additional loading of off-set wire wheels so my spacers will keep the loadings with the TR6 wheels close to the original design parameters of wire wheels (well I know what I mean).

The aircraft quality wheel spacers.

As you can probably see from the photos these spacers are excellent quality, they come with wheel nuts to bolt them to the existing wheel studs but you have to supply your own wheel nuts to bolt the wheels to the spacers. The new wheel studs in the spacers are 1/2" UNF x 20 and are standard MGB wheel studs. I could have had them fitted with Triumph TR6 wheel studs (7/16" UNF x 20) which would then take standard TR6 wheel nuts, but this would mean the rear wheel nuts would be a different thread (and wheel-brace) from the front.

Two sets of standard MGB wheel nuts (at £13.99 for a set of sixteen) were also purchased to allow me to fit the wheels to Cracker. Eventually I am looking to source some bespoke wheel nuts to enable me to fit the standard TR6 hub caps incorporating spinners. At the moment I'm not having much luck locating special nuts and three so-called manufacturers of bespoke wheel nuts have replied that they cannot make them, but I have a cunning plan! If and when I succeed in fitting spinners I will submit a separate article.

Changing the rear wheels:
After jacking up the car the wheels were removed, the split pins removed and the hub nuts loosened. After slackening off the brake adjuster the hub nuts, brake drums and hubs were removed (you need a good puller for this job!).

This is the puller I use it is part of a set of three.

Note.
My method of using a puller is to lubricate the thread, do it up tight and go and have a cup of tea. Chances are when you come back the hub and puller will be lying on the floor. If not smack the bolt head with a hammer and it often pops off, if not rinse and repeat.

The 'new' hubs, original brake drums and the 25mm spacers were then fitted. The wheel stud thread was then checked with a straight edge to ensure the wheel studs were not protruding, they weren't, if they are then they need to be shortened (by cutting them down with an angle grinder etc. fitted with a 1mm thick slitting disc.

A steel ruler makes a good straight edge.

The spacers secured. They only need to be removed again if accessing the rear braking system.

The hub nuts were then fitted and torqued to 150 ft lbs and split pins fitted. It was then a simple matter to adjust the brakes. The wheels were then fitted and torqued to 65 ft lbs.

Front wheels:
The wheels and brake calipers were removed, split pins removed and the hub nuts loosened and removed, followed by the hubs and brake backplates. The brake backplates were cleaned off and taken back to bare metal. After applying two coats of red oxide and two of black topcoat they were replaced. The original brake discs were cleaned up and bolted to the 'new' hubs and the hubs were refitted and shimmed. ***(See Article - 'Reconditioning Front Hubs' for details of this job).*** The hub locking nuts were torqued to 40 ft lbs and further tightened to the next split pin hole in the stub axle and split pins fitted. The calipers were cleaned up and replaced with new locking tabs. Fitment of the wheels completed that side of the job.

Mudguards:
Following conversion the rear wheels are a much better fit within the mudguards from a side view, from a rear view they are slightly off-centre so a non urgent job is to make and fit wider mudguard spacers. The original front mudguards have always looked a bit silly sitting well above the wheels, which is a bit stupid really as the mudguards go up and down with the wheels they can be mounted quite close. Looking from the front they are also slightly off-centre from the wheels so the making of new mudguard stays is now on the list of jobs. 'I suspect that Cracker was originally fitted with the wrong size mudguard stays.

Spare wheel:
The spare wheel and mounting bracket were removed. The bracket was modified to take the TR6 wheel by removing the original wire wheel rear hub and fitting a steel wheel rear hub in its place. The wire wheel hub was secured with two wheel nuts as these are not used for securing a wire wheel to the hub. I secured the steel wheel hub to the bracket with a stainless steel countersunk screw going into an original brake drum screw hole; they are further secured by the wheel nuts when the spare wheel is mounted on the bracket. It was then stripped of all paint and surface rust and repainted black before refitting.

The original setup for wire wheels.

The hub is secured with a stainless screw, temporary spacers are stainless washers.

Spare wheel mounted.

Main parts used:
- 2 x MGB steel wheel front hubs and 3 x MGB steel wheel rear hubs (free gratis from Chris Hollier and Tony Martin).
- 5 x second hand TR6 steel wheels at £303.
- 5 x New Nankang 165/80 R15 87T tyres at £251.94.
- Two sets of front wheel bearings c/w oil seals at £59.90.
- Two brake calliper locking tabs at £1.52.
- One set of front wheel bearing shims at £2.95.
- Two sets of wheel nuts at £27.98. I needed two sets to have enough to secure the spare wheel to its modified bracket.
- A pair of 25mm spacers for the rear wheels (made to order by SFP Engineering) normally £110.99, although I bought them with a discount code for £90.39.
- GPS speedo at £5.93.
- Blasting of wheels and powder coating in RAL 9006 Grey, fitting new tyres and balancing wheels at £296.
- 1 x Aerosol can of 'RG 90 Black' (paint with inbuilt primer) for painting hubs and front brake backplates at £11.40.
- Stainless steel fixing and sundries at circa £2.00.

Total £1053.01.

Summary:
I much prefer the looks of the steel wheels and the modification meets my expectations. The larger wheels and tyres haven't adversely affected/changed the clutch bite etc. when pulling away from a standstill, neither have I needed to alter my normal use of the overdrive (I change into overdrive on engine speed not road speed). The steering seems identical to how it was with the MGB wire wheels. It's early days yet but I'm very glad I made the change; I prefer the looks and the higher gear ratio. I don't keep track of my time but possibly around 12 to 15 hours with a total cost of circa £1050, against that I shall recoup some of the cost by selling Cracker's original wheels, spinners and hubs. So a final outlay of close to £700 but the new tyres should last for a good ten years.

As he was with wire wheels.

As he is now.