

## MGB V8 Roadster restoration project – Report 9

### MG RV8 engine and gearbox

On Friday I got tempted to purchase an MGRV8 engine and gearbox including all the electronic fuel injection system! It just so happened that I had just sold a 1930's Scott Squirrel motorcycle and the money was sitting there just as the RV8 bits came up for sale. They were virtually the same price. It just seemed the right thing to do. I hope I'm right? I have got to travel 280 miles to collect it!



### Wheels and suspension geometry

Four new Minator 6J x 15" wheels came with the MGB Roadster and they have an offset (or is it inset, I can't remember) of 15mm.

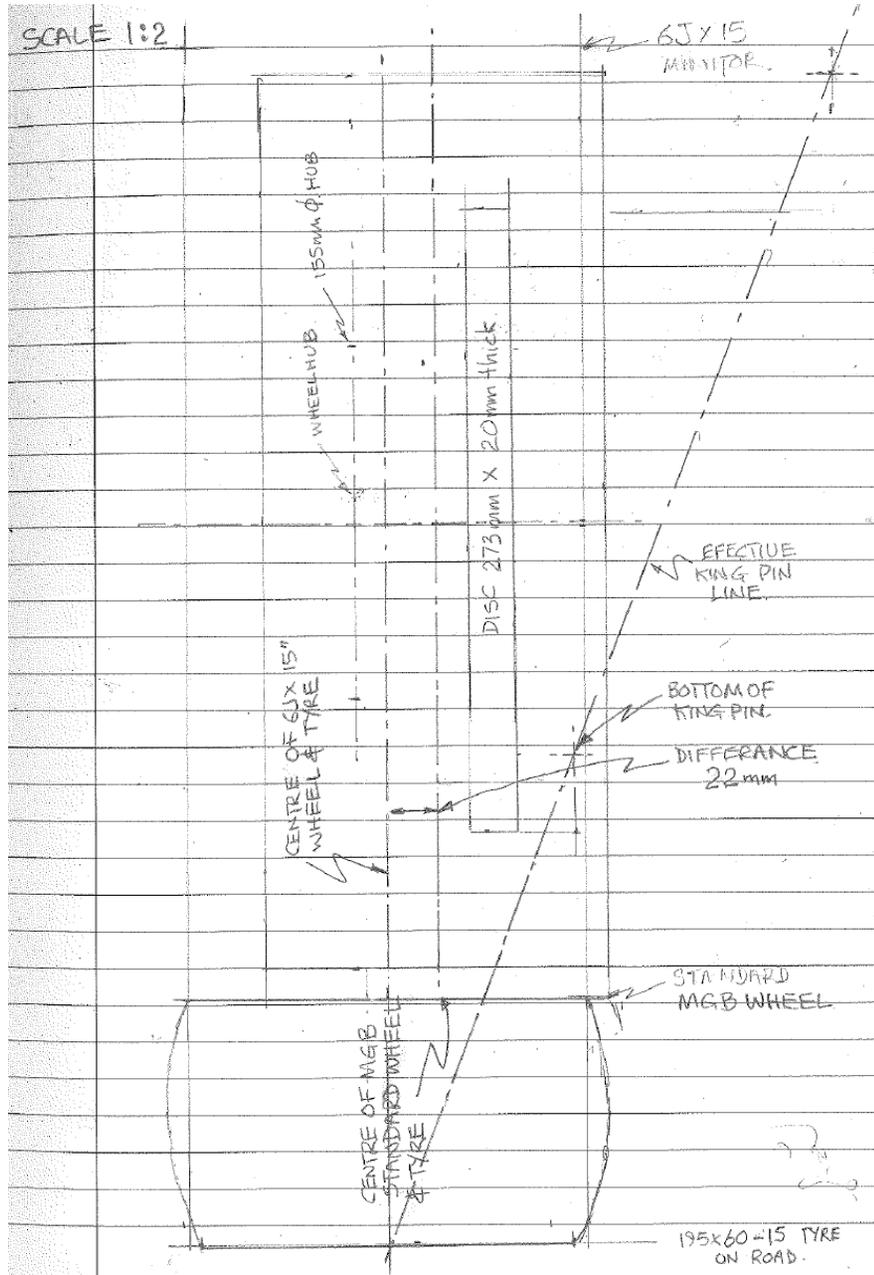


Normally if you fit wider wheels to a vehicle you have to make sure that the inset/offset is correct so that it adds the same distance to the inside and outside of the wheel rim so that the effective king pin angle bisects the tyre contact patch in the centre of the tread



I was worried that the offset inset would be incorrect for the MGB and put the king pin turning point to one side or the other side of the centre of the tyre contact patch. This would give heavy steering, bad handling and possible bump steer. Therefore I decided to draw out the positions of the front wheel hub, disc, original wheel, king pin line of rotation. My drawing is below, but it is not easy to understand as I have just drawn the original MGB wheel and the Minator wheels as boxes, which is OK for my purposes. If you want to see a better drawing I will try and tidy up the drawing.

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See a full size copy of this drawing:

[www.v8register.net/FilesV8WN/150208-V8-restoration-Mike-Macartney-chart-Report-09.pdf](http://www.v8register.net/FilesV8WN/150208-V8-restoration-Mike-Macartney-chart-Report-09.pdf)

### Vented front brake discs

Fitted to the MGB I bought are vented discs. Reading Roger Parker's information it appears that they are probably Peugeot 505 discs.



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### Tyres

I estimated that the best size tyre to fit to the rims, for more or less the same rolling diameter, without the tyres being like rubber bands was **195/65 x 15"**. I popped down to our local garage to see if that had an old tyre of this size. They had. They were just fitting new tyres of that size to a customer's car. I went home and came back to the garage with the alloy Minator wheel and they fitted one of the old tyres to my rim. That's another drink I have to buy them when I see them in our local pub!



When I got the wheel and tyre home I tried it on the MG to make sure everything fitted OK and it didn't foul anything. I also added the height and width of the tyre to my drawing. Then I extended the line of the king pin down to the tyre. Low and behold it dissected the tyre contact patch right in the middle – perfect. Was it luck by the last owner, or well designed?

The picture alongside shows what I mean about how the **king pin line should dissect the centre line of the tyre contact patch**.

### Arkley

The photo alongside of the Arkley I bought after Dugald bought the MGBGV8 back. (Yes, I am getting to the point I should have not sold it! Sorry Dugald, but you are still my friend). I bought this as an MOT failure, with the intention of fitting a V8 into

it! But then the yellow peril (MGB Roadster rebuild project) came up for sale.

The track of the wheels is much larger than the original Austin Healey Sprite. This is due to the Ally Cat alloy wheels, plus spacers, that have been fitted with the incorrect inset/offset. The spacers were fitted by a previous owner because the inside wheel diameter will not fit over the brake callipers. Basically the tyres sit too far to the side of the car and the king pin line dissects the tyre contact patch about a 30mm offset to the inside of the tyre. Although it is fun to drive, in a straight line on our bumpy Norfolk roads it wants to go all over the place. If I do ever get around to fitting a V8 into it I will have to make new suspension arms and a new upright (king pin assembly) to correct the front suspension, or find a set of wheels with the correct diameter and offset.



The photos of the car are when I first bought it. Can you remember those sunny days in September?

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### Nuts and bolts

Last time I went on about sorting out and cleaning the nuts and bolts. Below is a picture of what you need to sort out whether your bolts are UNF, UNC, Metric, BSW, BSF or BA.



This shows a vernier calliper, Thread gauges for UNF, UNC, Metric and Whitworth threads.

You also need to have a chart to show you the details of each type of bolt thread. The one shown is the Zeus data chart. But Tracy tools have a simpler version on the back of their catalogue. Their catalogue is well worth getting, just for the information on the back cover.

Tracy Tools Ltd.  
[info@tracytools.com](mailto:info@tracytools.com)  
 01803 326430.

### Zeus data chart

### Comments and feedback are very welcome

As before, if there is any specific you want me to write about, or have comments, questions or abuse, don't hesitate to email me on [mikemacartney@btconnect.com](mailto:mikemacartney@btconnect.com).

At least in this report there is not many pictures of the yellow on the MGB. When I go in the garage now to work on the car I am starting to get 'snow blindness' or is it 'yellow blindness'. I still don't know whether or not to change the colour!