

**MGB Technical Tips - Tyres:**  
**Part 1.**

When the MGB was first released, it came standard with steel “disc” wheels and hubcaps. The sporting image at that time was to have wire wheels, which were a high-cost option which could be selected by the BMC dealer, when ordering a new car from the factory.

The steel wheels that were fitted to early MGB Tourers were just 4” wide and had 560-14 size Cross-ply tyres. The Radial-ply tyre equivalent size is “155/80x14 80 T”. Think of something like pizza-cutters.



To quickly explain the manufacturer’s markings on tyre sidewalls in the previous example;

**155** is the number of millimetres across the tread width of the tyre

**80** states the “Series” or “profile”, which is the height of the tyre as a percentage of the tread width. So 80% of 155mm tread width gives 124mm sidewall height making this tyre almost square in section. See the left hand schematic in my line diagram below.

**14** states the inside diameter of the tyre in inches, to suit the appropriate wheel diameter.

**80**, for this tyre is the Load rating, of 450kg supported by each tyre.

**T** is the Speed rating, of a continuous 190KPH.

More on this in Part 2.

Isn’t it strange how tyres are sized in a combination of Metric and Imperial measurements? Apart from a bizarre attempt by Michelin for a few years (back in the days of the MG Metro, Maestro & Montego) who produced tyres in Metric diameters, which meant that a few car manufacturers had to produce Metric diameter wheels. I think those Metric diameter wheels still had Imperial widths, in inches. Crazy!

I hope to give the reader a visual impression of how the cross-section of two different sized tyres look in my line sketches below, which show the difference between two tyres, the one on the left is the original early MGB tyre size and the one on the right is has a wider tread and lower sidewall and has the same Rolling Circumference to produce the exact same speedometer reading in the MGB. These diagrams clearly show how wider tyres, with a reduced sidewall height, can get more rubber on the road.



The tyre in the photo below is listed as 175/80x14 99 Q

Yes, being of suitable dimensions, this tyre will fit an MGB.

No, this tyre should never be fitted to an MGB because of the other important tyre ratings.

The load rating of “99” means that it’s capable of carrying a vehicle load at each of the four corners of the vehicle of 775kg. Not all that much less than the entire dry weight of an MGB, on each of these tyres. The “Q” speed rating means that this tyre is safe at continuous speeds up to just 160KPH.

Again, more on this in Part 2.



The photo of this tyre is ideal because it's actually shown fitted onto a heavy-duty steel truck rim. Usually tyres are displayed in the retailers' catalogue or website just as a bare tyre, so it wouldn't otherwise be so obvious, unless you're familiar with tyre tread patterns. I found this photo by innocently searching for the tyre size on the website of a tyre reseller. An unsuspecting MGB owner using the same method to search for replacement tyres could easily have bought these tyres on-line, to be installed at their local tyre-fitter. They may well have noticed the truck wheel and the truck tread pattern on this tyre, but would they have spotted it if it was one of the other delivery van tyres offered to me by the website? I'm here to help with this predicament. Read on.

You might say that you never drive your MGB more than 160KPH anyway, and surely a heavier load rating makes the tyre stronger... or something.

These facts, on paper, might make valid points, but in reality this truck tyre is simply not suitable for a car, and certainly not suitable for a light-weight sports car. The sidewall of this type of tyre will be so rigid that it'll transfer every slight bump in the road surface to the interior of a car. If you had these tyres on an MGB and drove over a discarded cigarette packet on the road, you'd be able to identify the brand of cigarettes because you'd feel the packet's lettering passed through the tyre for the driver to feel.

Anyone who has experienced driving in a car fitted with 20"+ diameter rims and ultra-low profile tyres will know how uncomfortable they are inside the car, unless they've become used accustomed to it. I'm thinking of The Flintstones prehistoric cars type of ride comfort here.

So, of more importance than simply finding a tyre that meets the dimensions and Load & Speed ratings for your MGB, we need to be looking for a tyre that's manufactured with the intention of being used on a sports car, while still meeting the above requirements.

I don't want to tar all tyre sellers with the same brush but there are some out there who will sell inappropriate tyres to MGB owners because, they can usually make a bigger profit margin on a cheaper tyre, or simply because they've got them in stock, and they don't want a captive customer to go somewhere else. I know this happens because I do see MGBs running on unsuitable tyres.

I get frustrated when I see how few 14" diameter tyres are available for sale these days that are suitable for the 6" alloy wheels on my MGB. I'm talking about two or three model tyres that I'd even consider. Consequently, it's becoming more likely that the unsuspecting MGB owner will be offered a poor quality tyre. Fortunately, for MGBs with narrower wheels there are many more choices for thinner tyres.

Car manufacturers are fitting larger and larger wheels to their cars, because even small model cars have grown out of all proportion (literally), so the manufacturer needs to fit larger wheels to make the car look more pleasing to the eye of the buyer.

As a good example, the proper, BMC Mini has a cubic volume of 5.8M<sup>3</sup>, whereas the gargantuan "mini" that BMW produces has a volume of 9.4M<sup>3</sup>, so almost twice the size. Think of this; the 2024 mini Clubman measures 13.5M<sup>3</sup>!!!, which is even bigger than the last model of Holden Commodore, and they still have the nerve to call it "mini".

Can you imagine how ridiculous a BMW "mini" would appear if it was fitted with the original Mini's 10" diameter wheels? To keep the styling proportions intact the BMW designers have to fit a minimum of 15" diameter wheels. My wife's "shopping trolley" hatchback is fitted with 245/45x17 tyres! A 1980s supercar, the 290kph (180mph) Lamborghini Countach had front tyres of 225/50x15.

So... because modern "small" cars are getting so huge, there are fewer tyre manufacturers making MGB size 14" tyres anymore.

There are plenty of tyre manufacturers making 19" diameter tyres, but unfortunately for MG T-Type owners they're at least five times too wide for them.

Back to MGB size tyres now.

Speedometer accuracy:

In my opinion, slight variations in the accuracy of the speedometer are of minimal concern in a Classic car. Disregarding the possible flickering of the speedometer needle in those cars with dodgy speedo cables, are you really keeping your eye close enough on the speedo to make sure that your MGB doesn't exceed 37.28227mph, when driving in a 60kph zone.

Also, tyres made by different manufacturers, or even different tyre models made by the same manufacturer frequently have a slightly different tread width or a different Rolling Circumference which can have an effect between the speedo reading and actual road speed.

The Radial-ply equivalent to the original MGB Cross-ply tyre is 155/80x14, which has a tyre diameter of 604mm (23.78"), depending on the tyre manufacturer. If you're concerned that you might be driving at a reckless 38.6mph in a 60kph zone, you'll need to fit tyres of exactly this diameter.

According to the MGB gear ratio calculator that I've developed over many years, at 60kph on original size tyres, the tachometer will be showing 2,061RPM. With the much wider, but lower profile, 195/60x14 tyres on my MGB's 6" wide alloy wheels, at 60kph, the tacho is reading 2,110RPM. Or, to look at this the other way, at 2,061RPM on the wider tyres, my MGB is actually travelling at a road speed of 58kph due to this tyre having the smaller diameter of 590mm, instead of 604mm with the original tyre size.

A couple of MGB owners who've contacted me recently to enquire about tyres, have larger diameter 15" alloy wheels fitted to their cars. When fitted with 195mm wide tyres with a 60% profile on those 15" rims they will still provide the same 60kph reading on the speedo as the skinny, original MGB tyres.

To summarise this point, don't be too concerned about venturing a little away from the original tyre's 604mm diameter because, unless you've done some fairly extensive bodywork to the rear wheel arches of your MGB, just about any tyre size that won't scrape inside the wheel arch will give a close enough speedo reading to actual road speed ratio.

Wheel width:

For a tyre to be safe on its wheel rim, it needs to be neither too wide for the wheel, nor too thin. Fortunately, finding a size that's just right is made easier because there's a recommended variation in wheel width for each size tyre width.

The 4" steel rim used on very early Tourers will safely accept 80 profile tyres with 155mm or 165mm tread width. Unless originality is your "thang", I'd suggest trying the larger tread width with a 75 or 70 profile.

The factory standard 4½" wire wheels would benefit from using a 165mm-185mm tread with a 75 or better still a 70 profile tyre.

Early disc wheel Grand Tourers used a 5" wide steel rim with hubcap, which is the same width as the factory ROstyle wheels. Instead of 175mm tread width tyres, go for 185mm tread with a 65 profile sidewall, or even a 195mm tread with a 70 profile sidewall to stay within safety guidelines on the tyre to rim ratio.

The MGB GT V8 was fitted with 5½" wide alloys, and the even less common the MGB Limited Edition model which sold in 1980 and into 1981 (after the factory closed), and even less common still, the Jubilee MGB both had factory alloy wheels that are 5" wide. Now these rims can be fitted with up to 195mm tread on sidewall profiles between 50 and 70, but a 60% profile is probably a good sidewall for an MGB.

Aftermarket 6" wide alloy wheels can go with tyres as large as 225/50x14 but wheel arch clearance is definitely going to be a problem on an MGB. To avoid too much flex of the tyre sidewall, when fitted to 6" wide wheels it's preferable to only fit 195mm tread tyres with a profile between 50 to 65, or even 205mm treads if you're confident that they won't get scraped by the rear wheel arches, or if you have had the lip of the wheel arch "massaged" to allow for the wider tyre.

You'll notice that I haven't listed the factory standard tyre size for each of these different rims. I've deliberately listed wider tyres that will safely fit those rim widths. By specifying a range of tyre widths and sidewall profiles, I'm not being vague. Those listed sizes are safe on the rim width, but these days you might not be able to find each of those optional dimensions in the 14" diameter tyres that are produced by manufacturers today, so here you have a variety of optional choices.

A point that I'll mention here but won't go into detail on, is that wire wheel MGBs have a rear axle assembly that's a different width to the steel wheel axle. The difference in the offset of the steel wheel compared to the wire wheels version compensates somewhat, so that the actual track measurement, from the centre of one rear tyre across to the centre of the other rear tyre is fairly close.

Banjo axles have different widths to Salisbury axles, and early ROstyle wheels had a different offset to later ROstyle wheels, so due to these variations, care must be taken when trying to select the widest possible tyre. To complicate matters further, a quirk with MGBs is that the axle housings are NOT mounted in exactly dead-centre of the car. So, with the frequently worn suspension bushes that many unloved MGBs have, when cornering, the tyres want to grip to the road, but centrifugal force wants to make the body of the car go wide around a bend in the road. This condition is more likely to cause the tyres to scrape inside the wheel arch. If this occurs, maybe don't opt for a smaller width tyre, but do something about improving the suspension bushes on your car.

If you have any concerns about tyres scraping wheel arches, choose a size narrower than the largest size that I suggested.

In Part 2, next month, I'll be discussing the contact patch of the tyre on the road surface and how the selection of a larger tyre width can improve it, a brief discussion on available tread patterns, and most importantly the often over-looked but crucial tyre ratings marked on their sidewalls.