**MGB Technical Tips - Tyres:**
**Part 2.**

Continuing on from Part 1, which discussed general information about tyres, the reason why the choice of good quality 14" diameter tyres for MGBs are reducing these day, how tyre size choice can effect speedometer accuracy, and selecting an increased tyre width to suit your model MGB's wheel size.

Contact patch:

Apart from the quality construction of a tyre with any claim to be safe in all road conditions, the contact patch is what we're looking to improve on, which is why I've suggested choosing a slightly wider tyre than was originally fitted to your MGB. An MGB has a limited number of wheel and tyre size options.

Modern cars can have a huge range of factory optional wheels and tyres that can be fitted. An example of this is the 2024 Ford Mustang with a standard tyre size of 235/55x17, going up to a factory optional tyre size of 265/35x20. Despite going up three wheel diameter sizes, the lower profile tyres fitted means that the speedo reading is the same. However, the standard brake discs will look relatively tiny inside the 20" rim, which is just an appearance problem according to my personal taste, but not only that, the 20" rim wearing 35 profile tyres takes us back to my cigarette packet analogy in Part 1, and how relatively uncomfortable the ride is inside the car.

Then there's another point, which I might write about one day, but the subject is pretty damn technically complicated, and this point is the loss of Torque when using larger diameter wheels. (Sorry for getting side-tracked here but I'll be brief). An engine's Torque, at the flywheel, is what car manufacturers publicise. In reality, what actually matters is the Newtons of Torque that get applied to the road surface, and this varies in the same car fitted with different size wheels and tyres. A car's acceleration is produced by the Newtons of Torque applied to the road surface, so this is an important consideration to me. I've done months of research into this subject and would love to find a 13" diameter wheel that will fit onto the back of my MGB for better acceleration when competing in hillclimbs. (A very early Ford Falcon had 13" steel wheels with the same stud pattern as an MGB, if anyone knows where I could grab a pair to see if they'll fit over MGB brake drums). During my studies into this phenomenon, I read from a reliable source, where actual back-to-back testing had been done, that a current model Mustang loses 26 horsepower on the dynometer when increasing from 17" wheels to a 20" set-up without any other changes. This might be difficult to believe, but it's true, the physics confirm it.

Despite feeling every tiny bump in the road with low profile tyres, like in my wife's hatchback, the lower the sidewall of the tyre means that the tyre is less likely to distort when cornering briskly. This is a terrific advantage of lower profile tyres, however I'm unaware of any 35 profile tyres in a 14" or 15" diameter, so for an MGB we're looking at a minimum sidewall height of 50% of the tread width, which is still a large drop from an 80 profile tyre. The higher sidewall acts like suspension by cushioning road bumps from the car's passengers. If you're dropping more than two sidewall sizes you might notice the comfort difference until you get used to it, but even a 50 Series tyre isn't as low as the tyres on many Modern cars.

Apologies for going off on a tangent there, so now back to the point of this article, which is to prevent your MGB from going off the road at a tangent.

The contact patch measurement of a tyre depends on a huge number of variations, such as the weight of the vehicle, the actual tread width (not the manufacturer's stated width), the speed of the vehicle, the Load & Speed rating of the tyre, the rim width and the tyre's air pressure, to name just some factors.

So, to evaluate the tyre-to-road contact patch, for each of the tyres at all four corners, I've calculated the following measurements using the same parameters in the calculator, at 60kph, but for different commonly used MGB Radial-ply tyre sizes, on the rim width that they're supposed to be fitted to.

155/80x14 - 102mm wide x 128mm long
165/75x14 - 111mm wide x 122mm long
175/70x14 - 132mm wide x 119mm long
185/65x14 - 138mm wide x 113mm long
195/60x14 - 162mm wide x 121mm long
205/50x15 - 173mm wide x 110mm long

As can be seen, a higher profile tyre has a longer contact patch (footprint) on the road surface, but a wider, lower profile tyre actually provides the largest gripping surface.

Our MGB owning companions well north of the Tropic of Cancer who need to contend with sometimes rain sodden, or snowy roads will benefit from narrower and longer contact patch tyres because of their better ability to shift road moisture, leaving the rear of the tyre's contact patch to be on a much dryer road surface.

Most MGBs have a home base in warmer, drier climates, so the biggest contact patch, of any shape, is what we're trying to achieve.

The smallest contact patch for all four tyres on the road is not unsurprisingly the 155/80x14 tyres, at 52 centimetres squared, going up to the 195/60x14 at 78cm$^2$, with the 205/50x15 at 76cm$^2$.

For those like me, who prefer to enjoy their MGBs, shall we say, "more fully", I have another comparison, using the actual tyre specifications of the brand and model tyre that I use, which is a street legal competition tyre, with the largest acceptable tyre sizes on standard MGB bodywork.
The 195/60x14 has a four wheel contact patch of 72cm$^2$, with the 205/50x15 being 76cm$^2$. Considerably more surface area on the road than the 54cm$^2$ that my 1965 MGB originally had. The manufacturer's specifications for these tyres is the reason why their calculated contact patches differ from the list above,

I'm not suggesting that all MGB owners should rush out and purchase the semi-slick tyres that I use, even though the road grip that they provide is incredible. I mean, just incredible! The photo below shows how much of the surface of this brand new, soft compound tyre melted and bunched up in clumps after just one circuit race. I know that some of you, will be calculating the cost of the lost tread here, or the reduced life of the tyre before it needs to be replaced, but did I mention that the road grip is just incredible. I feel so safe on the road with these tyres because I have the confidence in knowing that I can safely take evasive action to avoid someone else's crash situation which could be heading in my direction. That's money wisely spent.

I've always said that tyres are the best way to increase the performance of a car. There's no point fitting bigger brakes and keeping skinny tyres, and there's no point in having more power when the wheels simply spin-out on skinny tyres, and it's unsafe to drive in a spirited manner, the way MGBs were intended to, on tyres that are old, cheap & nasty, or built to be used on light commercial vehicles. The safety of your MGB, or any car, is almost predominately reliant on the quality of its tyres.

The adjacent table shows all of the current tyre Speed ratings and a sample of the many Load ratings.
It could be argued that a standard, fully laden MGB should be fitted with an R Speed rating and a 67 Load rating tyre, but I doubt such a lowly rated tyre is currently in production. While the tyres should never be less than these ratings, it's preferable to go as high as possible in the Speed rating, to take advantage of better tyre technology, even if your MGB isn't going to be travelling at 240kph, like the V Rated performance tyres that I use will allow. These same street/race tyres have a Load rating of 86, which again, is more than an MGB needs, but there aren't many (or any) modern cars that are as light as an MGB. A tyre with a Load rating of too much more than "86" or "88" is possibly not suitable for a light-weight sportscar and should be avoided.

Tyre Speed & Load ratings:

| SPEED Rating | | LOAD Rating | |
|---|---|---|---|
| N | 140 | 62 | 265 |
| P | 150 | 63 | 272 |
| Q | 160 | 64 | 280 |
| R | 170 | 65 | 290 |
| S | 180 | 66 | 300 |
| T | 190 | 67 | 307 |
| U | 200 | - | - |
| H | 210 | 84 | 500 |
| V | 240 | 86 | 530 |
| Z | 240+ | - | - |
| W | 270 | 125 | 1650 |
| Y | 300 | 126 | 1700 |

I did a search on a major Australian tyre-selling website for an MGB example tyre size of 175/70x14, which has a good selection of tyre models to choose from, and was given the following results of Load and Speed ratings, which I counted and placed in order from the worst to best performance specification for an MGB.

95 Q x 1
95 S x 1
95 T x 3
84 S x 6
88 T x 23
84 T x 67
88 H x 5
84 H x 40

Clearly, the “95” Load rated tyres listed are for commercial vehicles, despite the website’s computer-generated image showing them fitted to Supercar-type alloy wheels. Thankfully there were more than 40 suitable H-rated tyres available.

I really didn’t want to mention any tyre manufacturer’s brand name in this article but I have to in case. The website that I searched has two listings, on different web pages, for Bridgestone Ecopia EP150 tyres with the same tyre size. They both have a Load of 84, which is ideal for an MGB, but one has a Speed rating of “S” and the other is “H”. The H-rated tyre is ideal, and also the minimum you should consider for an MGB, whereas the S-rated Ecopia is only slightly better than the commercial vehicle tyres on the list. The website specifically recommends the H-rated version as a premium quality tyre, in my opinion the S-rated one is far from that.

When ordering your new MGB tyres, please specify not just the brand or model of tyre but its Load and Speed rating.
So, you see now, that from a choice of about 150 tyres on this website that fit could fit on an MGB, there are less than 50 that should even be considered.

From these 45 tyre models, you then exclude the unheard of brand names that are probably made in a high-rise tower-block manufacturing facility in one of those countries where the term Quality Control is often mistaken to be the name of a foreign cake, or perhaps a heavy-metal band.

On this website, my “xenophobic” search for tyres reduces the list down to just 16 tyre brands. To prove that the search isn’t quite so xenophobic, the removal of tyre brands unknown to me still leaves tyres from companies with Head Offices based in Japan, Korea, Italy, Holland, and even America.

You should also delete from your list any tyre with a Block tread pattern, as seen on the left in the next photo. This is the sort of tread pattern you see on Tradie Utes that spin out of control on damp road surfaces. Always go for the Rib tread pattern tyres like the one on the right, because I’m told that ribs in rubber perform

in a more satisfying manner when being driven home. The Block or Lug pattern tyres have the blocks "squirming" around under cornering and braking conditions which make them unsafe. They're fine for farm and beach use, but not so good on the roads while driving there.

On this tyre reseller's website, another way to remove the dross from the list, is to filter the selection by price, from highest to lowest. I apologise to those readers who are on a price budget but I hope that I've thoroughly explained why going "cheap" on tyres is a false economy, especially if your car is involved in an otherwise avoidable Road Traffic Accident.

The cheapest of the Cheapo tyres on this website are $52 each, including interstate shipping, disposal of the old tyre, fitting, installing a new air valve, balancing and profit for the seller and manufacturer. Are you kidding me? Just $200 for a set of tyres. Not even if you try to justify it to yourself by saying that I don't use my MGB very much, just don't do it.

Conversely, the most expensive tyre on this website, at this time, is an extremely well-respected brand, with a tyre model at $177 each. However, it has the off-road style block tread pattern which is to be avoided. Many much better options are found at prices $30-$40 less than this unsuitable, but most expensive model tyre with a minimum "H" Speed rating.

So where does this leave you, the consumer, the searcher for decent quality MGB-suitable tyres? I'm not going to point you to the "unicorn" tyre, you'll have to make this final decision for yourself. What this article has been all about, is to educate the wonderful MGB-owning community about the importance of fitting good, and not cheap, tyres to their Sportscars, and to educate you on what tyres NOT to buy. Learning what tyres NOT to buy is more important than trying to make a selection between two or four well-known brands with a good tread pattern and MGB-suitable Load & Speed ratings.

I have to acknowledge that when I began thinking about this topic for an MGB Technical Tips article, I thought this would be a good choice to fill just a couple of magazine pages. As usual, probably to the irritation of our fabulous Editor, this article has expanded, like mine all inevitably do, so that I can fully relate a reasonably complete amount of information, in a hopefully understandable way, to MGB owners who have never had to contemplate this topic in such depth before.
I hope that I've succeeded here.

The selection of performance tyres for **my** MGBs has always been an extremely easy decision, the only difficult part of the process is handing across well over a $1,000 for a set of tyres. Now, after having gone through what most MGB driver's experience when selecting non-performance tyres for their Classic sportscar, I have a better understanding of just how perplexing it is, and why I so frequently get contacted for assistance.

I've been told by several readers of my Tech. Tips articles that they keep them in a special folder and refer back to them when they need to be refreshed on the topic. This article is a good contender to be saved somewhere, because there's so much information here to remember, and also because you possibly won't be searching for new tyres for another few more years.
(Tyres over ten years old will need replacing anyway, no matter how much tread they have left).

I think that I've covered everything here to assist MGB owners in selecting a safe and suitable tyre for their car.
Definitely go for a wider tyre that can still be safely fitted onto your wheel rim size, go for the highest Speed rating with "H" being the lowest option, go for a lower Load rating to avoid van & truck tyres, and never, ever, ever, try to save money by opting for budget priced tyres.

The only thing keeping your MGB on the road is the frighteningly small tyre to asphalt contact patch.
Make your MGB's tyres the best ones that they can be.