



What causes heavy steering and how to manage it?

A query from a member with an MGBGT V8 was – “I have fitted 185/65 R15 tyres on 15” Minilite wheels and my steering is really heavy and stiff. Have I made a mistake? Should I have fitted 14” wheels?” Here Victor Smith sets out his response.

Factors causing steering to feel heavy on an MGV8

The main factor causing the steering to feel heavy is the **amount of rubber in contact with the road surface** and also how, over the years since the MGBGT V8 model was launched in 1973 **tyre technology has improved so the grip of tyres has improved**. That has given better braking and road handling but that increase in grip has also contributed to the heavier feel of the steering.

Another factor is how as drivers **we have become conditioned to the steering on modern cars feeling so much easier**, requiring much less effort with the benefit of power assisted steering systems. Also that lower effort tends to encourage drivers to turn the steering when the car is not moving as the effort needed with PAS is comparatively small. In contrast, with an MGBT V8 or an MGR V8 without PAS, the effort needed to turn the steering when not moving is considerable. The accepted driving style that was almost a natural habit back in the 1970s was to keep the car moving at a very slow rate when turning – for example when parking the car in a small space. Many driving an MGV8 today use that method to avoid a heavy steering effort and for some older owners with experience of driving cars before PAS became a popular feature, do so without thinking because the feel of the steering when driving an MGV8 brings back that earlier driving style.

Contact patch

The grip factor through the “contact patch” between the tyre tread and the road surface depends to some extent on

the level of tyre inflation, but for 175 and 185 tyres the patch is around 51.5 to 53.0 square inches. The 185 contact patch is around 2.8% to 3.0% greater than with a 175. Although using a higher level of tyre inflation will make the ride in an MGV8 less comfortable (particularly from a slightly harsher feel from the front tyres and the harder response generally to bumps and other uneven features in the road surface), it will have the modest benefit of reducing the size of the tyre patch. That smaller tyre patch will provide a modest reduction in the effort needed to steer the car, particularly at slower speeds or when barely moving.

Improved tyre technology and rubber performance

Good tyre surveys by the Which? magazine have shown that some tyres, particularly the Continental Contact tyres with a softer rubber, do make a noticeable contribution to absorbing the thump from bumps and road markings. Those tyre tests also highlighted key safety characteristics with Continental Contact tyres like improved grip, roadholding and braking, but also suggested the wear rate would be higher because of the softer rubber. But for a classic car covering modest annual mileages the wear rate is of less concern because the tyres will age before replacement becomes necessary – usually after say 8 to 10 years. Beyond that period the flexibility of the rubber will tend to become harder, eventually leaving the tyre tread with a flexibility feeling like wood! [Tyre ageing](#)

Other factors

Ron Gammons mentioned that “almost all types of tyre are now radial and they tend to be heavier on the steering due to the flex in the wall of the tyre. A further factor is the size of the steering wheel – there is a reason why the car originally came with a wheel that “could have come from a bus!” It has a lighter steering effort. If a small steering wheel is fitted, particularly with a thin wooden rim it’s more difficult to grip and apply the turning force. There is the castor angle issue too.” [Castor angle](#)

Malcolm Gammons added “many people look in the V8 handbook and still run very low front tyre pressures. With the tyres we have now a pressure close to 30lbs in the front is much better than 21-26lbs. The other main point is you need to check the king pins still turn, we do now supply a king pin with a needle roller at the top which we call the “easy steer” as it does take a good amount of the load from the king pin away. Also we fit many cars with 15” tyres as the choice is much better if you go up to 15” and run a 185-65-15” and also they are much cheaper and work very well.”

On the subject of heavy steering Jim Livingstone said “I have to confess that my initial impression of my MGBGT V8 was that the steering effort was far too heavy at low speeds and resolved to fit PAS at the earliest opportunity. It had been years since I had driven an unassisted car and the manoeuvring effort of the MG rather spoiled my driving enjoyment. The car was fitted with 15” wheels shod with 185/65 tyres and equipped with

a 13" steering wheel so the result was not surprising. At least it was addressable and I am happy with the results from fitting an EZ EPAS which I wrote up in V8NOTE591.

[See V8NOTE591](#)

The response to the member's question of heavy steering has covered most of the possible causes with the exception of a **tight steering rack** (caused by damage) and **seized kingpins** (resulting from poor maintenance) which could be detected by raising the front wheels - in this condition the steering effort should be very low. "

How to read the tyre side wall markings

See our guide note on the markings and what they mean.

[Tyre side wall markings](#)

What are the key issues to consider when deciding whether to fit 175 or 185 tyres on an MGBGT V8?

Tyre width is a factor - the 185 tyre has a wider tread width of 185mm (7.28 inches) so is 10mm (almost 0.4 inches) wider than the original 175 tyre. That additional width will put more rubber in contact with the road (depending on tyre pressures and vehicle loading) which should provide greater grip, but there will also be more drag from the greater frontal area of the wider tyres which will tend to increase the fuel consumption (mpg) to some extent. The tyre width is referred to as the "section width". See V8NOTE187 contributed by David Knowles which provides a useful insight into tyre aspect ratios. [V8NOTE187](#)

Some people may argue more rubber on the road will give an MGV8 better grip when cornering and braking, which might encourage fellow members to go for 185 tyres, but there are other factors. When I used to race an MGB Roadster back in the early 1970s I remained with the original 165 tyres on the model, but other competitors went for wider tyres. They might have had a small advantage with more rubber on the road when cornering on a track at a high speed but the slightly higher rolling and wind resistance of the wider tyres did have an adverse effect on the straight-line high speed parts of the track as I was able to reach a faster speed compared with the cars running on the wider 175 or 185 tyres.

My advice is to **stay with 175 tyres** and choose a tyre with good grip and roadholding characteristics like a Continental Contact tyre. The softer rubber provides a more comfortable ride too. For modest MGBGT V8 use, say for touring, the 175 tyre can give a slightly better fuel efficiency. Also with 185 tyres with a 65 profile there is a relatively small issue with the speed reading on the speedometer because of the different tyre circumference.

What are the replacement wheel options for an MGBGT V8?

Original 14" Dunlop Composite wheels fitted to the MGBGT V8 model at the Abingdon Plant

They were a popular wheel in the early 1970s that was advertised as "giving your car real personality!" But with a

chromed steel rim and an alloy centre they do have inter-metallic corrosion issues and are often subject to corrosion of the steel rim if not carefully maintained to avoid corrosion developing in the crevice where the chrome rim is fixed to the alloy centre. The refurbishment costs are considerable because the corroded wheels have to be taken apart, cleaned up, rechromed and reassembled and balanced by a wheel restoration specialist.

[Dunlop composite wheels in the 1970s](#)



Original 14" Dunlop composite V8 wheel - chrome steel rim & alloy centre

A less expensive option which does not involve splitting the rim from the alloy centre, but instead grit blasting the original but corroded Dunlop Composite wheel to bare metal removing corrosion from the chromed steel rim, and then repairing any kerb damage, filling any areas where corrosion has been removed and applying the self-etching primer which is baked in a low bake oven. The wheels are then flattened down to create a smooth surface and they are top coated and lacquered with a durable Polyurethane silver coloured paint and clear coat.

Attractive 15" all-alloy Dunlop Composite look-alike

Attractive all alloy alternative "look-alike" MGV8 wheels are available from Clive Wheatley in a 15" size. The reason Clive chose to invest in resourcing a supply of all-alloy Dunlop "look-alikes" as 15" wheels was because he felt at that time the demand was for that size and was seen coming from the MGV8 conversions market. Enthusiasts with an MGV8 conversion welcomed the 15" wheel because it has room for fitting a larger upgraded front brake calliper, whereas the 14" does not.

Also at the time Clive was investing in the major task of resourcing look-alike all-alloy wheels the major classic car wheels refurbisher MWS near Slough was providing a

good refurbishment service for original Dunlop 14" composites, so the demand for alternative look-alike wheels from enthusiasts with original Dunlop Composites in need of refurbishment was low. However within a year of Clive launching his look-alikes MWS decided to cease offering its refurbishment service for original 14" Dunlop composites. Then with MWS no longer offering a refurbishment service many MGBGT V8 owners faced with corroded Dunlop composites decided to buy a set of Clive's 15" look-alikes as replacement wheels.



New all-alloy replacement 15" V8 look-alike wheel with a polished rim from Clive Wheatley mgv8parts

With a 185 65 R15 88H tyre the 80 the aspect ratio or profile height of the tyre is calculated as the sidewall height expressed as a percentage of the tyre width. So a tyre with an aspect ratio of 65 is a tyre whose height is equal to 65% of its width. Fitting a lower aspect ratio tyre to a 15" wheel can get the appearance of the wheel on an MGBGT V8 to seem close to that of a 14" wheel with 175 80 R14 88H with an 80 aspect ratio.

Minilite 15" alloy wheels



The original Minilite wheel, made in magnesium, was probably the most successful competition wheel in the 1960s and 70s, winning races and rallies on a variety of different cars. Now the same wheel is being produced in an affordable aluminium alloy to that original

design.

Manufactured in the UK, Tech Del Minilite wheels are low pressure die cast, pressure tested, batch x-rayed and machined using the latest computer controlled equipment.

They are a popular replacement option when faced with refurbishing or a more serious restoration of original but corroded Dunlop Composite wheels.

What size of wheels should I use?

As far as I am aware whether the wheel is 14" or 15" makes little difference to the steering being really heavy and stiff. It's the tyre size (width/contact patch) and make or brand (specification, grip & rubber characteristics) and tyre pressure that have an effect on how heavy the steering feels for the driver – and of course whether a power steering kit is installed as a retrofit.

Have I made a mistake - should I have fitted 14" wheels?

I feel the answer is no - it's mainly a question of whether originality is a concern. The MGC 3 litre straight six cylinder model was fitted with 15" wheels at the Abingdon Factory and they look very good on that model as an "original feature". But the "originality topic" with MGV8s is one I avoid as it can attract strong views from some members commenting for or against originality. It's a personal choice, with choosing the right size of tyre you can retain what seems to be a similar appearance and ride height to an original MGBGT V8 with 14" wheels. Essentially wheel size is your choice.

More information on articles on replacement tyres for the MGBGT V8 is available on the V8 website. [Link](#)