MGB

To B or not to B?

CCHL is the clear choice.

Simon Lucas

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The MGB Specification Guide

Introduction

The MGB, for many, is the affordable classic sports car that in theory should need no introduction, I imagine we have all seen, heard, sat in, driven, or stared lovingly at an MGB at some point in our lives.

From early experiences of driving to fond memories of friends or relatives owning one to the all too familiar tale of parting ways with a cherished MG to make way for a family-friendly car with more seats. Many were sold to fund a deposit for a new home, people interested in '60s and '70s cars will at some point have been involved to a large or small extent with an MGB, and this is where our story begins.

I hope you enjoy this journey as we delve into the history and the specification changes of the MGB, the records that were kept were very different from today. Therefore, we are somewhat reliant upon information supplied when pen and paper ruled, long before computer systems took over. The MGB was, and still is a driver's car. Unlike modern cars, they have to be used and driven to fully appreciate their charm. These cars have a real soul and when used and enjoyed instil the feeling of genuine interaction with a machine which very few, if any modern cars can offer.

Often, they were undervalued at the time of purchase. Their real beauty and worth went unnoticed until much later in life when you sit back and appreciate what they were; what fun one had owning and driving a real iconic game-changer of a car.

The MGB saw many changes over the years, some to merely update the car and keep it fresh, others were more radical to cater to the various markets they were destined for. The car's designer, Syd Enever managed to create a car that was much more robust and stiffer than its predecessor - the MGA, this helped to enhance the handling of the car and made it a very sturdy and safe vehicle of its time.

All the facts and figures in this book have been researched from many sources. I aim to be as accurate as possible using all the information at my disposal. As with nearly all car production runs, they evolved over some time, and the MGB was no different.

Throughout this book, we will be looking at changing consumer attitudes and how cars are used and driven.

The changes to the MGB were not only to improve the car but also to keep pace with the general public's requirements and be on par with regulations. The largest change was the introduction of the rubber bumper model with increased strength and new materials required to satisfy North American regulations; they were the MGB's largest market.

My interest in the MGB started many years ago when I fondly remember my first dramatic experience driving a 1966 MGB GT in wet and windy conditions.

As most of my early driving was done primarily in front-wheel-drive cars, I found the rear-wheel-drive car on a wet roundabout one Sunday morning quite an eye-opener. With a little too much throttle I ended up nearly facing the wrong direction, I managed to correct the car and drove off somewhat nervously but with a smile on my face, which I still get today when driving a well-prepared MGB built to the high standards at CCHL.

Ever since then, I have driven many MGBs from very standard factory specification cars to highly modified examples, but they all portray the same characteristics from this much-loved and respected model of simplicity.

It has a sure-footed and predictable feel, making you confident about the capability of the car.

I hope I have described most, if not all of the significant production changes and alterations that have been included in the following pages. As you can imagine over an 18-year production run there were many modifications and improvements from minor tweaks to some radical overhauls, all of which, resulted in the car we all know, and for most of the time love so much today.

Chapter 1

The MGB From The Very Beginning.

The MGB was introduced in 1962 as a replacement for the beautiful but dated MGA, the aim was to update and build on the predecessors' success and include more features to keep pace with other car manufacturers of the time and also to make the car more usable daily.

The whole design of the car was radically changed, not just with the monocoque body but also with the addition of wind-up windows, a more powerful engine, and an improved 4-synchro gearbox.

The factory had to devise something to rival its competitors, and with that, the MGB was born. The initial reaction was good, but not even MG was aware of the impact that their new model would have on the company. Indeed, it would become one of the best-loved British sports cars of its era, still popular today, the car maintains a huge following.

Its ease of driving along with the attractively designed bodywork with a chrome strip running the full length of the body gives the MGB its defining look, which is quite simply timeless. Over the full production period of the MGB from May 1962 until it ceased in October 1980, just over 512,000 cars were built with a large proportion destined for the North American market.

The MGB Roadster was unveiled first; it was then followed by the Pininfarina-styled GT model with production starting in September 1965.
Both cars were easily recognised. The GT version a Coupe, shared many of the same mechanical components but with new body panels to supplement those flowing lines.

The GT was a more practical and usable example having the added benefit of a small rear seat for occasional use if needed, providing you could squeeze into this small area.

The Origins of The MGB

Whilst the exterior style of the new roadster, known by its BMC project number of ADO23, was almost completed by 1959, its mechanical details were still a work in progress. Both Abingdon and BMC management hoped to make the ADO23 a much more sophisticated package compared to the MGA. Abingdon had high hopes for the project that included updating the MGA's antiquated suspension which was the same as the Y-type saloon, old-style lever shock absorbers and a simple live rear axle on leaf springs. Several engineers and many drivers criticised the MGA's handling, especially at speed.

Since the rear springs had the sole responsibility for the axle location, they were made very stiff. This was fine on a smooth track, but not so great on everyday roads where the harsh suspension and high unsprung weight caused the ride to be too firm and quite uncomfortable.

There was a great deal of room for improvement to make its successor the user-friendly vehicle that it had to be. They had to ensure it was a success from the start so big things had to change.

John Thornley, the General Manager of MG at the time, very much wanted the ADO23 to be ready before the end of the '50s, but with various delays in the construction of the first full usable prototypes, it was not ready until the spring of 1960. Coupled with the fact that they were not ready for full testing until autumn of that year, the timing of the cars fell well behind the anticipated schedule.

During this time Abingdon launched the MGA 1600 Mk 2, this was a stopgap to try to keep the interest alive while work continued on the MGB. As John Thornley had initially suspected the MGA sales lost ground rapidly in the early 60's. Many buyers pivoted towards its rivals such as the Triumph TR4, and it then became apparent that the replacement had to be ready sooner.

One of the last MGA roadsters, the MGA 1600 Mk 2 was Introduced in June 1961 with an increase in engine size to 1,622cc producing 90 Bhp, Other improvements were a headlamp flasher switch, wheel trims, a closer ratio gearbox, an anti-roll bar and battery covers.

However, this could not win back enough new buyers, and MG knew they had to act fast and introduce the all-new replacement.

The spruced-up MGA was not a great sales success, for all the reasons they already knew and were trying to remedy with the MGB.

A CCHL MGB Roadster finished in Damask red fitted with 15" chrome wire wheels and a Mohair hood

Green CCHL MGB V8

Cream CCHL MGB Roadster with wire wheels and Red Soft top

Dark Blue CCHL MGB Roadster with wire wheels and white wall tyres

The Launch of The MGB

The MGB was launched in 1962 and was hailed as a great success, it was aimed largely at the US market. The car was praised not only for its more modern design but also for the improved space inside and the notable upgrades of the engine and gearbox along with much better weather gear and overall ease of use.

It had some big boots to fill taking over from the MGA, however, it looked as though MG had pulled it off with journalists and buyers all giving positive reviews. The comments proved that the bold move of making the car a stronger and more comfortable machine in comparison to the MGA had paid off.

MGB Roadster, this model is finished in metallic Jaguar Blue and fitted with larger 15" chrome wire wheels and a blue Mohair hood. Still retaining the classic look with a little modern twist.

The sales figures proved the MGB was a hit and continued showing no signs of slowing down for the first few years; the introduction of the GT in 1965 cemented its status as a desirable yet affordable sports car of the '60s.

Not until 1967 did sales start to slow, this was a trend that continued for a few more years until the refreshed model was introduced in 1970.

This brought new buyers who bought into the updated offering even if the die-hard enthusiasts were not as supportive. They did not like the idea of vinyl seats, rubber-faced over-riders, and a completely revised recessed front grille, all in all, there were mixed reactions.

Overall the MGB was a commercial success, quickly overtaking the early MGA for sales. The MGB's 25,000 plus annual sales were fairly modest in comparison to some, but it was the best-selling model Abingdon had ever offered. It showed they were still capable of producing a car to compete with its rivals.

The pure lines of the MGB GT with Old English White paintwork show the timeless beauty of the car, this example also has 15" chrome wire wheels.

A major factor in the MGB's popularity was the price. This was a desirable proposition for many, especially when compared to the likes of Jaguar and Triumph. In the UK, the price started at £949, £60 cheaper than a very basic Triumph TR4.

Fortunately for British car buyers, the Chancellor of the Exchequer cut the tax rate significantly just weeks after the MGB's introduction, by the 1964 model year, the advertised price had fallen to £836 including purchase tax even though the base price had not changed. Just like the MGA, most MGBs were sold abroad. North America took the lion's share with the bulk of production, but the MGB also sold well in other countries. To avoid import charges, MG developed CKD (completely knocked down) kits that were to be assembled locally in Ireland, Belgium, and Australia; more than 9,000 MGB roadsters were built between 1962 and 1972.

The most significant changes for the MGB occurred in 1974 when, whilst still retaining its overall silhouette, the shape was marred by the change to large black rubber bumpers, for many this was the decline of the MGB, as we know it. The major factor for this addition was the North American market that pretty much dictated what was going to happen with the MGB as it was the largest single buyer of the car.

MGB GT in a very 70's colour scheme

Raising the ride height by one inch and removing the shiny chrome bumpers with heavy and large black rubber offerings was to enable the car to comply with stricter crash regulations for the US. The car was too long in the tooth to redesign completely, and a new model was out of the question, so the only way forward for British Leyland was to modify and adapt what they had. In fairness, it still sold reasonably well until the late '70s and figures remained fairly consistent. The car that had essentially the same body shell and lines for nearly two decades was now showing its age.

It was starting to look dated in what was becoming a hot hatch market. Tastes were changing and were reflected in the likes of the Mk1 Golf GTi. There was a movement away from two-seater sports cars to a larger, more refined market for people who wanted a practical hatch with sportier credentials.

A Brief History of MG and Its Owners.

The company's name is thought to have originated from the initials of Morris Garages, discussion continues as to when the MG Car Company initially started.

The earliest cars to use the Morris and MG badges appear to be around November 1923. The MG Octagon was first registered as a trademark by **Morris Garages** on May 1, 1924, with its 90th anniversary celebrated in 2014. The very first cars were re-bodied Morris models that used the coachwork from Car bodies of Coventry.

Morris Garages built these cars on their premises in Alfred Lane, Oxford. Demand soon built up which saw a move to larger premises in Bainton Road in September 1925. They were now sharing workshop space with the Morris radiator works.

Further expansion did lead to yet another move to a separate factory in Edmund Road, Cowley Oxford in 1927. It was near the main Morris factory, and for the first time, it became feasible to include a proper production line.

In 1928, the company had yet again grown. It was also big enough to need an identity separate from the original Morris Garages. To help build on its success and grow the brand; the MG Car Company Limited was established in March of that year.

Once more space ran out, another search for a more permanent home led the search to an old leather factory in Abingdon, Oxfordshire. In 1929 they were able to lease a large section and then gradually over time took over more space until production finally ended there. Mr. William Morris owned MG initially; MG was sold in 1935 to Morris Motors that was incorporated as WRM Motors Limited, later called the Nuffield Organisation.

In 1952 MG, Morris Motors Ltd., and the Austin Motor Co. were merged to form the British Motor Corporation Limited.

The service manager John Thornley took control as general manager, and under his influence, he navigated the company through its best years until he retired in 1969. Under the umbrella of the British Motor Corporation, several MG models were merely re-badged and engineered versions of other established marques, with the main exception of this rule being the MG sports car division.

BMC also took over Jaguar Cars in September 1966 and in December BMC changed its name to British Motor Holdings. It joined forces with Leyland Motor Corporation in 1968 to form British Leyland Motor Corporation (BLMC). Then, following partial nationalisation in 1975, BLMC became British Leyland, that was eventually known as BL Cars Limited, consisting of two main divisions; Austin Morris and Jaguar Rover Triumph. Austin Morris included MG, while Land Rover and Range Rover were later separated from Jaguar Rover Triumph to form the Land Rover Group.

British Leyland's management team and engineering staff were mainly sourced from the former Leyland organisation. This included MG's closest rival Triumph. Triumph was also grouped into BL's Specialist Division, alongside Rover and Jaguar; MG was retained with the former BMC marques in the Austin-Morris Division, which stuck to its job of making high-volume family cars.

Triumph launched new models like the TR7 and the Dolomite, during the Seventies. MG was not producing anything new of real interest apart from the now legendary V8 version of the MGB. The MG operations were profitable however; the rest of the Austin Morris division was showing huge losses, and funding was made available only for mass-market models. This left MG with minimal resources to improve and expand its line-up that was by then becoming out-dated. With the closure of Abingdon on October 24, 1980, BL saw this as the only way forward as the rollercoaster ride of the 1970s had taken its toll on the company.

Chapter 2

The first **MGB** cars built were the convertible model, known also as the tourer, they all shared the same platform and body design throughout the full production run although with many changes taking place. The most significant happened in 1974 when the rubber bumper model was introduced. The early cars are often viewed as the purest as the lines were really clean and uncluttered. The pack-away style hood made the car look elegant and smooth as the hood was placed in the boot area, then neither frame nor hood were visible when removed.

The early **MGB's** body design was originally built to facilitate the three-synchro gearbox. This was a comparatively narrow transmission unit but did give good space in the cockpit; it was replaced in 1967 with a four-synchro gearbox. Then they needed to widen the gearbox tunnel and modify the body to allow this to fit. It would be a better gearbox if a little snugger inside.

The 3 synchro gearbox tunnel fitted to earlier MGBs until the introduction of the 4 synchro gearbox in 1967.

The early car's most recognisable feature was the exterior door handles, they were a pull handle type, very smooth looking. They were replaced in 1965 with push-button door handles, and these were retained for the remainder of the entire production.

The original exterior pull handle, well known to all MG enthusiasts.

All early cars had the option of either left-hand drive or right-hand drive form, the hole for the steering column and pedal box mountings were part of the shell making the process very straightforward to build either at the factory.

During the 18-year production run the key market trends dictated how the car developed; the following details list the changes to the exterior of the body and how this affected the appearance of the car, the overall presentation, and visual changes. The initial success of the MGB was largely down to its unique styling, it still looks remarkably fresh today. A significant factor put into the design came from Pininfarina who worked alongside MG on several projects. Anyone who has looked at the characteristics of the MGB recognises the importance of the chrome strip, without this one single feature the entire look of the car changes, and its definitive lines are lost completely.

From the full chrome grille with the prominent MG badge proudly sitting in the centre, to the smooth flow of the bonnet onto the slightly raked windscreen frame. At the rear the gentle drop of the boot lid, it is an exquisite design that no computer-generated offering could match today. It was in a time long before wind tunnels, and the need for better MPG ruled that artists were given a free reign to sculpt and create beautiful, classic designs that have stood the test of time.

Side view of a CCHL MGB Roadster, this angle you never tire of looking at.

CCHL MGB Roadster finished in a non-standard Aston Martin colour, however, an MGB can pull off most colours with ease.

CCHL Blue MGB Roadster

Initially, the body panels were to be manufactured from aluminium, and it was hoped that the doors, boot, and bonnet would all be made from the same lighter material, however, with the gauge of the aluminium selected it was decided they dented far too easily. Only the bonnet made it to production; even this was only till 1969 when it went to all-steel to match the rest of the panels, it also helped to reduce the manufacturing costs of the car.

The Early Years.

The basic structure of the MGB remained pretty much the same through the full production and the robust monocoque design of the chassis and body as one unit proved to work well.

The critical components to this were the sills, which were made up of an outer sill, an inner sill, and a castle rail which provided the majority of the strength to the car, unfortunately, they are also well known for eroding the quickest.

They are relatively easy to replace if you have the knowledge and understanding of how they all fit together, but inevitably the rust doesn't stop there.

When restoring an MGB, you often find much more of the "tin worm" as the body is dismantled. There are many different hiding places for moisture to get trapped and shelves for road dirt and mud to form and eat away at the MGB's metalwork.

A brave restoration or ideal for a new shell rebuild, it would take a lot of work to put this back on the road.

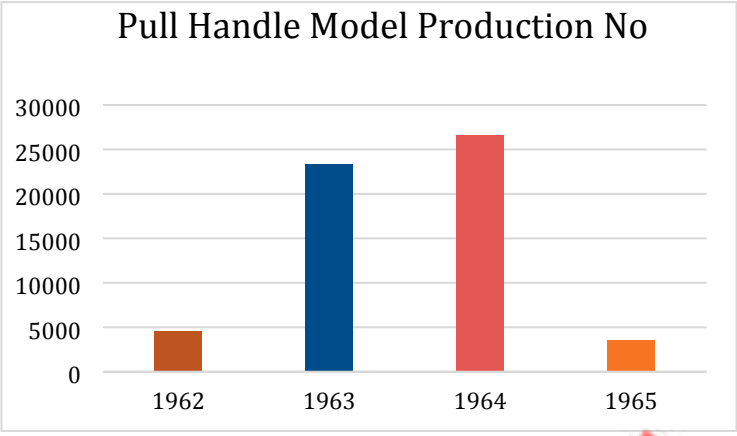
The MGB can be stripped down to just a tub, as the front panels are all bolted on including the front wings, front valance, bonnet, and doors. This is good news if they need to be replaced whereas, the rear wings were welded on along with the rear valance with only the boot lid/tailgate a bolt-on item.

MGB tub

CCHL body shell

The early MGB cars were uncluttered and rather basic which, however, was no bad thing, the first examples produced were blessed with the full chrome slatted front grille, all chrome front overriders, and the simplicity of the chrome headlight surrounds which covered the clips and fixings of the headlamps, they were basic but worked well together.

Its simplicity, and the idea of "less is more" are what make the MGB styling what it is. A total of 57,885 pull-handle model cars were produced, and these are still seen by the MGB purist as the car to own.



Throughout the production run, subtle changes occurred, some to improve the overall aesthetics of the car and others more function over style. From the very first car changes started to creep in, the radiator chrome slatted grille was changed with the individually riveted slats to a one-piece pressed item from October 1964.

The first significant change was in April 1965 with the introduction of the push-button door handles instead of the pull-handle variety.

Push-button door exterior door handles

Later in their life, the early pull-handle doors were known for bursting open when the latch started to wear, the newer design eliminated this problem. The body had to be modified as the door catches had different mountings with a more robust latch used, the mountings for the catch on the door casing were altered to match.

Original pull handle exterior door design

Door latches and catches

The door locks also changed at this point; the exterior door locks were held in by a spring clip instead of the circlip style of the earlier door locks, this new and improved design stayed with the car for the remainder of the production run. Also, it enabled the boot lock/tailgate lock to match the door locks; now, a single key could operate all three locks.

The new door lock mechanisms were much more durable than the previous design but still retained their good looks. The locking mechanism was also improved; it changed once more in 1967 to allow a different internal opener and lock. The design of the exterior push button door handle was carried onto the MGC and used on the MGB GT V8, and a very similar design was used on the MG Midget.

Internal door opener

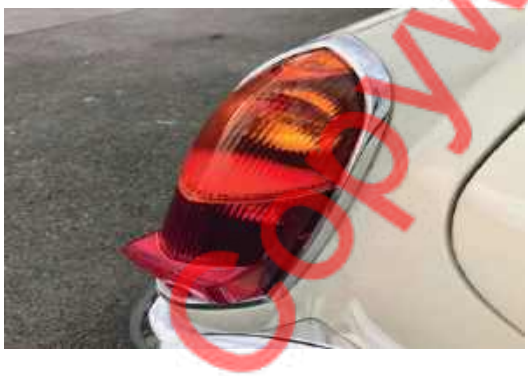
The next noticeable design change to the exterior of the car was the addition of reversing lights, this occurred in March 1967 for the Roadster and April 1967 for the GT, they were functional but again lost the pure lines at the rear. Many people thought they cluttered the back panel, but these were essential if MG were to be seen as serious in moving with the times. It also had to keep up to date with its competitors and safety standards.

Reversing light

The next change to occur was the front wings, this was when the gap for the sidelight and indicator unit was moved closer to the front Grille in September 1968, for the Roadster, and November 1968 for the GT, so all 1969 models had new wings fitted.

Front wing, side light gap change

In 1969 the bonnet was changed from all aluminium items to a steel unit. The rear light units had another significant change; this was also in 1969, all GHN4 and GHD4 cars had the curvier rear light units, these had a backing plate and split rear lenses. There were two pieces, an amber indicator lens and a red rear and brake light lens with a chrome retaining Bezel to hold them all in place. From 69 the GHN/D 5 series was replaced with a squarer unit, this was a one-piece light unit and complete lens which fitted over the backing plate.



Different rear light units

The badges on the MGB were the same throughout the '60s. Still, during its makeover, in October 69 the boot badge went from the early "MGB" script type with the skeleton octagon badge below to the solid one-piece MG badge on the Roadster, but still with the MGB script above. The GT badge changed from the three-piece MG

badge into the solid one-piece, and the "MGB GT" lettering was altered into simple B, GT. Also, British Leyland badges were fitted to the front wings.

Badges

The wiper design changed for the 1969 model for the USA market and used three wipers instead of the traditional two that remained on the home market cars. All USA cars were fitted with three wipers until production ended, these proved to be a good idea and did a great job in clearing the rain if caught in a downpour but were never considered for the UK market which retained the two wiper format.

Wipers

The North American market also saw the rear bumpers change for a limited period for the 1970 model and split rear bumpers were used instead of the one-piece type, but this only lasted for one year. Again for the North American market rear red side markers were fitted on the rear wings and front indicator flashers fitted to the front

wings were mounted on a black plastic plinth which was profiled to match the contour of the wing to make them sit even. These were fitted on all North American models at this stage and continued through the remainder of production.

Side markers and indicators

Moving with the times - With the MGB selling very well, BMC had no desire to change a winning formula; the company had spent most of the 1960s with a significant shortage of development funds. They were used to enhancing what they had, always making simple revisions to keep things fresh and in line with the moving times.

Nonetheless, the MGB gradually underwent its next transition to appeal to a new audience. The first noticeable change to the exterior and body was the revised grille which was changed from the all-chrome slatted version to the recessed black grille with the MG octagon badge perched in the middle with silver letters on a red background.

Black slatted grille

Chrome slatted grille

The complete grille was surrounded by an anodised aluminium moulding in 4 sections one on the base of the grille insert and two on either side, the final piece attached to the bonnet itself that enveloped the recess when the bonnet was closed. This style of grille lasted less than three years and was replaced in August 1972 with an updated version of the original grille with a chrome surround but with a black mesh insert which was also used on the GT V8 model.

Honeycomb style grille

The badge on the grille had also changed its colour from a black background with red lettering to a red background with silver lettering. This grille continued until the end

of the chrome bumper cars. It is worth noting that all the grilles on all chrome bumper cars are interchangeable, this is because the aperture is the same size and shape on all the Roadster and GT models throughout the chrome bumper models.

Many owners change back from the recessed style to the all-chrome type which makes the car look much older than it is but is still favoured by the majority for its good looks. During this period the over-riders underwent a small change, at the beginning of 1970 all chrome over-riders were replaced with a rubber face which acts as a buffer, admittedly they did the job and avoided any marking to the chrome on any small nudges during parking or poor judgment when manoeuvring slowly. The North American cars in 1974 saw a rather large black bulky over-rider fitted for that year only.

2 different styles of Over-riders

Nothing significant changed to the bodywork and exterior of the car until September 1974 when a considerable overhaul occurred. This was the introduction of the infamous rubber bumpers (they were manufactured from polyurethane). Still, everyone was familiar with the term rubber bumpers as they were commonly known at the time, and indeed they are still called that today. In this same period, a whole host of other changes took place; these are covered in respective sections of the book. Still, the entire look of the car changed at this point; they were installed to maintain the strong market in North America, which was the most significant single buyer of the MGB.

With the ride height raised, and chrome bumpers, sidelights, and over-riders gone, the sheer bulk and weight of the bumpers took the edge off the once elegant MGB. Still, surprisingly buyers were not detracted from purchasing too much, and the car

continued to be built and sold for a further six years after they were initially fitted. With the chrome bumpers and grille now removed, the overall silhouette of the car was still similar, however, the front view with the larger bumpers covering the space where the front grille sat now had a black mesh panel fitted instead to protect the radiator behind.

Rubber bumper car front view

This new front bumper was very deep and covered the front lip of the bonnet with a shaped nose centre section for the MG badge to sit. At the rear the bumper was also deep and swept around the rear valance and under the rear light cluster, the design was somewhat bold and did the job very well, as they were extremely sturdy examples they would not have an issue with any small collision. Still, the look of the car seemed uncomfortable along with the increased ride height; it almost felt like an off-roader in comparison to its prettier and lower-riding predecessor. The front wings were to its most radical update to allow the indicator lights which were fitted within the bumper itself, to be recessed into the front wing.

The front valance had to be revised to allow for these alterations, the shape of the front wings was mostly the same, but the front corners were chopped and changed for the new requirements. The rear valance was also significantly altered and the large holes for the rear bumper irons and fixings were removed. Instead, several smaller holes in the rear valance were used for the mounting of the massive bumper.

Due to the lack of over-riders, the rear number plate lights had to be revised. They were now found on the rear number plate backing that housed the wiring and lamps for the number plate; these were just above the bumper level and below the boot lid.

The rear wings were also altered to allow the fitment for the rear bumper and a small section was removed where the rear lights mount as the more prominent bumper now curves around in its place and under the rear light units.

Rubber bumper car rear view

It was all done rather neatly and very similar to its smaller relation the MG Midget that saw the same makeover for precisely the same reasons. Following on from this big shakeup in 1974, the year after saw the launch of the Jubilee edition in 1975, celebrating 50 years of MG production. Although some claim it was the 52nd year of production, nonetheless the car's badging changed from silver to gold colour for this year only. The MGB script on the boot lid of the Roadster was discontinued, and the large octagon boot badge was now in metal instead of plastic.

The MGB GT saw a limited run of 751 cars built in the unique Jubilee colour scheme of racing black with a gold stripe and black door mirrors and the wheels were V8 style but painted in gold and black to celebrate the milestone. Each car was individually numbered having its own plaque showing its number in the run. Late in 1975 around December, the front number plate moved slightly to help improve airflow which was something the V8 engine benefitted from.

Jubilee MGB GT

The 1976 model car saw all the badging revert to the previous colour scheme of silver now that the Jubilee celebration was over. In March of 1976, The C post badge was changed to a much cheaper option, and now there was no need to send them to the Cowley plant for lead loading, the bodies could be completed at the Swindon factory saving time and money.

C post badge

C Post Joint

The final major makeover of the MGB occurred in late 1976 when the dashboard was revised along with an overhaul in the engine compartment. The radiator mountings were positioned further forward, the same as the V8 design, the cooling of the engine was improved with electric fans, and the bulkhead design changed for the steering column to sit through, it was now deeper with different mountings along with an altered pedal box.

December 1977 saw the British Leyland badge on the front wing removed, the last hurrah was in August 1980 when the production of the Limited Edition models began for the UK home market, these were supplied with either cast alloy wheels or wire wheels and finished in metallic paint with striping detail down the sides and special red badging, this series ran alongside the standard production run of cars, the US market saw these models a bit earlier in the previous year.

MGB Colours - Some unusual and weird colours were offered on the MGB. Today the most popular shades would include Red, British Racing Green, and Old English White as the standout colours for the 'B'. What many remember most, however, are the various alternatives that were offered, they did suit the shape of the body well but are often overlooked.

The Black Tulip colour which made a short appearance in 1973 and Teal Blue which was used again in the early 70s stand out for me. Colours are a very subjective matter but during the late 70's even the Russet Browns, and Citron Yellows were a brave choice and were in fashion at the time, allegedly.

Chapter 3

The Development of The MGB Engine.

The MGB engine has always been known to be a reliable and robust unit. The 1798cc engine was fitted for the entire production run with a few tweaks and alterations along the way, but this was not the first choice of the engine that was used.

BMC initially wanted to use an entirely new type of engine that was based on a V4 design. The V4 motor had a very narrow 18-degree bank angle, and this made the engine very compact. Pushrods still operated valves, but a timing belt drove the camshaft.

BMC had grand ideas to use two four-cylinder versions, one of about 1100cc that would replace the smaller A-series engine and the other around 2000cc that would replace the B-series. There was also mention of a V6 version as well some discussion about the O-series 1.7 litre Marina engine being used towards the end.

The V4 was a corporate project that was developed at Longbridge rather than Abingdon, but Syd Enever was never really comfortable with the idea. V4 engines had been tested in MGA cars before. BMC finally dropped the project in 1960, they decided that it would be too involved and it could cause production issues.

As this was unknown territory, a long-term view was taken that the new engine format was potentially too risky for a mass-market engine. This then led the way to the very recognisable "B" series engine.

The original basis of the "B" series engine was a 1200 cc Overhead Valve (OHV) engine which was used in the Austin A40 Devon. They realized that eventually they would need an engine that could power many of its upcoming cars and it would need longevity, this would need an engine of a much larger capacity of at least 1500 cc. As the A40 Devon engine was not able to have its cylinder capacity enlarged, a new engine would need to be designed and one that would be able to cope with the extra power that would be necessary to help future-proof things.

The initial design of this new engine started around early 1952 and was designated as the "B" series. This was very similar but was slightly longer and heavier than the A40

engine. One of the most significant advantages of this unit was that it could be bored out so that the cylinders were increased in size to offer a more substantial capacity. Originally built as a 1200cc later displacements ranged from 1.2 L to 2.4 L. The most common engine sizes as we now know today were 1500cc and 1800cc; these were to be used in several vehicles for quite some time to come.

1800cc engine bare block

The 1800cc MGB Engine

Now that the choice of engine was decided using the robust 1800cc lump, the unit changed many times. Even today it proves itself to be a worthy power plant for the car with many still going strong (many will have had one or two rebuilds in their lives).

Most, if not all will have been converted to run on unleaded for today's fuel with the alteration of the valve seats within the cylinder head to accommodate the lower octane fuel we are now using. The engine itself was of conventional construction, with a one-piece crankcase and cylinder in cast iron with the crankcase extending down to the lowest level of the main bearing caps with a cylinder head in cast iron, and a sump made from pressed steel.

The B-Series shares many design features (such as the heart-shaped combustion chambers and Siamese inlet ports) its basic layout and general appearance is similar

to the much smaller BMC A-Series engine. However, another difference was its block's full-depth skirt, which provided excellent bottom-end strength. This made the engine extremely durable and robust as well as being suitable for further development.

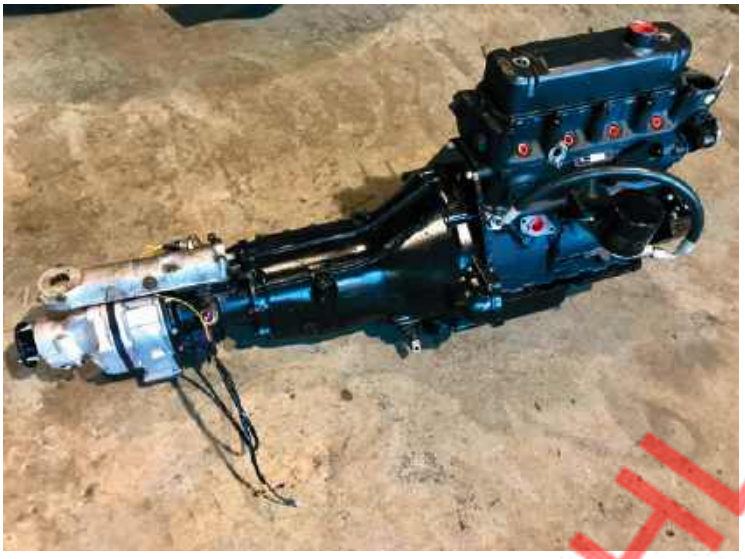
The same engine can also be found in Sherpa vans and the Marina, which shared the same basic engine unit, but with differing engine numbers to define what engine went in what car or van. A diesel variation was also looked into as an option; they thought it would be beneficial for many years to come. In the big picture, this never happened. The engine that was used on the MGB was the same right through the full production of the 1800cc (1798cc); a big improvement appearing in 1964 when the three-bearing crank was upgraded to the five-bearing crank engine.

Throughout the production, the engine was updated, and when this happened, new engine numbers were used to signify a change for ease of future reference. Many changes were minor, some, merely to the ancillary equipment, although more were implemented to satisfy the North American market than domestic.

Original MGB engine bay with standard air filters

Significant changes to the MGB engine by year	
1962	Start of engine production and engine number series
February 1963	New front pulley
March 1963	New outer valve springs and new con rod assemblies
December 1963	Valve cover changed
January 1964	More durable dynamo and new front pulley
February 1964	Closed circuit breathing system, side cover with oil separator, rocker cover with no breather pipe
July 1964	Inlet valve guides updated
October 1964	Updated crankshaft with five main bearings
April 1965	Newer rocker cover now fitted
June 1965	New pistons and rings design now fitted
September 1965	Rocker design changed again electric tachometer now fitted
June 1966	Redesigned water pump used
January 1967	Different thermostat used, new sump.
February 1967	High-compression pistons and rings fitted
August 1967	New water pump

November 1967	Larger flywheel and ring gear, altered closed-circuit breathing system, new Tecalemit oil filter, thermostat, and water elbow changed, block drain tap replaced by a plug. (Changeover to 4 synchro gearbox now)
March 1968	New inlet and exhaust valves, new valve springs
October 1968	New style dipstick and dust protector, carburettor crankcase ventilation instead of close circuit system.
March 1970	BL stickers were used instead of the plate on rocker covers, new oil filter cartridge.
August 1971	All engines painted black.
October 1972	Single timing chain instead of the duplex chain
October 1973	Spin-on oil filter fitted
October 1974	Rubber Bumper cars with new front engine plate and engine mountings, revised cylinder head with smaller inlet valves, new front cover for the engine, new crank pulley, new cylinder front side cover with built-in oil separator.
December 1975	New water pump
From 1977	All these models have electric cooling fans



1800cc engine, gearbox and overdrive recently rebuilt ready to be installed, this shows how long the 3 units combined are, it is easier to fit the engine and gearbox together rather than separately.

ENGINE IDENTIFICATION	
18G	3 bearing crank, open crankcase breathing
18GA	3 bearing crank, closed-circuit breathing
18GB	5 bearing crank, closed-circuit breathing, dynamo
18GD	5 bearing crank, closed-circuit breathing, alternator
18GG	5 bearing crank, carb feed breathing circuit, alternator
18GF	USA/Canada only
18GH to GK	USA/Canada only

ENGINE NUMBERS FOR QUICK REFERENCE 1962 - 1971		
Year	**Engine prefix**	**Engine number**
May 1962 - February 1964	18G	101-21121
February 1964 - October 1964	18GA	101-17500
August 1971 - November 1973	18V-581	101-5302
August 1971 - November 1973	18V-582	101-22341
August 1971 - November 1973	18V-583	101-870
August 1971 - August 1972	18V-584	101-19491
August 1971 - August 1972	18V-585	101-2751
August 1972 - September 1974	18V-672	101-38094
August 1972 - September 1974	18V-673	101-6550
November 1973 - September 1974	18V-779	101-5359
November 1973 - September 1974	18V-780	101-7224
September - December 1974	18V-836	101-5401
September - December 1974	18V-837	101-1504
September 1974 - June 1976	18V-846	101-914

September 1974 - October 1980	18V-847	101-40188
December 1974 - August 1975	18V-797	101-9361
August 1975 - June 1976	18V-797	101-10357
December 1974- August 1975	18V-798	101-1694
August 1975 - June 1976	18V-798	101-2007
June 1975 – June 1976	18V-801	101-14801
June 1975 - June 1976	18V-802	101-3509
June 1976 - October 1980	18V-883	101-50984
June 1976 – October 1980	18V-884	101-10425

CCHL Engine bay detailed

The earlier cars all used a three-main bearing crankshaft for the 18G-series numbers. In February 1964 positive crankcase breathing was introduced and the engine prefix changed to 18GA, then in October 1964, when a five-bearing crankshaft design was used, the engine prefix became 18GB.

Horsepower was rated at an optimistic 95 bhp on both five-main-bearing and the earlier three-bearing cars with the peak power coming at 5,400 rpm with a 6,000 rpm limit. Torque output on the MGB registered a peak of 110 lb-ft, and fuel consumption was stated to be around 25 mpg.

Visible changes to the engine; the oil filler cap changed from a metal one to a plastic filler cap and the front side cover on the block included an oil separator that connected the closed-circuit breather control valve on the inlet manifold pipe. The 18G and 18GA engines both used a cable for the counter operation whereas the 18GB engines were now electronic.

Next up came the 18GD engine, which was introduced when the MK2 arrived, and the gearbox improved from three synchromesh to four synchromesh boxes. The 18GF engines were all destined for North America with a few finding their way to Canada.

CCHL MGB engine bay with Weber Carburettor

Many other changes occurred in the export market, especially in the North American sector. The main ones to note would be the introduction of the evaporative loss

control system in October 1969; this was initially for the Californian market that saw its way into all North American cars from August 1970.

US specification cars did see the output power fall and in 1968 the factory introduced new emission standards with the use of smog pumps that drained the power of the car considerably. In 1971 UK specification cars still had 95 bhp at 5,500 rpm, with 105 lb-ft torque at 2,500 rpm.

Engine prefixes became 18V, and by 1973 it was 94 bhp by 1974 it had fallen to 87 bhp, with 103 lb-ft torque by 1975 it was 85 with 100 lb-ft.

Some of the California specification cars produced a meagre 70 hp by the late 1970s, which made the vehicle's pace relatively tame as the carburettor setup was constricted by the stringent emission regulations. The compression ratio was substantially reduced from 9 to 1 to 8 to 1 on US-spec cars in 1972.

CCHL version of early engine bay

The B-series engines all had the 1800 numbering cast into the side of the block on the left-hand side, from 1962 through to 1971 the engines were painted a maroon colour. The original engine number would be located on a plate close to where the block meets the head and between number two and three cylinders.

Many MGB engines have been changed over the years, and a reconditioned exchange engine is relatively common. Some reconditioned engines may have their own numbering system that will not correspond to the original factory numbers. The

engine was also used in the Marina and Sherpa vans so some may have found their way into an MGB over the years.

The conversion to V8 engines is a popular choice for the power increase and increased torque it offers along with the wonderful sound, it is a tried and tested route that does fit neatly into the MGB engine bay when done correctly. Many other engines have been shoehorned into the MGB, I have seen V6 engines used and even diesel engines fitted along with more modern engines using fuel injection upgrades, however, few seem to deliver the sound and feel of a well-sorted CCHL MGB V8 engine.

The 1800cc engine is also good to tune and squeeze some additional bhp out of, stage 2 cylinder heads, a better camshaft along taking the bore up to 2000cc make the car a much livelier machine. The addition of a supercharger is now also available; this makes it a lot of fun and really improves the MGB. It does deliver a significant power boost but always consider you need to stop and go around corners too so if you increase the power, then other areas also need upgrading.

Overall, the engine choice worked then as it does now, giving adequate performance and reliability in a beautifully simple design without over-complicating anything, and there is little wrong with that.

Later MGB engine bay

Chapter 04

The MGB Gearbox

MGB gearbox with Overdrive

The gearbox was upgraded in the MGB; it started life as a basic three-synchro gearbox with an optional overdrive unit which gave the car a much-needed 5th gear. This progressed to a four-synchro overdrive gearbox in late 1967 when the MK2 car appeared. It was a significant improvement making the gearbox more pleasurable and easier to use for many.

The **"crash first gear"** as it was often referred to was gone, the driver could now engage first gear while moving without the inevitable crunching and grinding noise the three synchro boxes would give out to warn you that you should be stationary before attempting first gear. The overdrive gearbox was an added feature that effectively gave the user the 5th gear; it was a big help at higher cruising speeds and was beneficial to keep engine revs lower.

MGB Gearbox stripped / internals

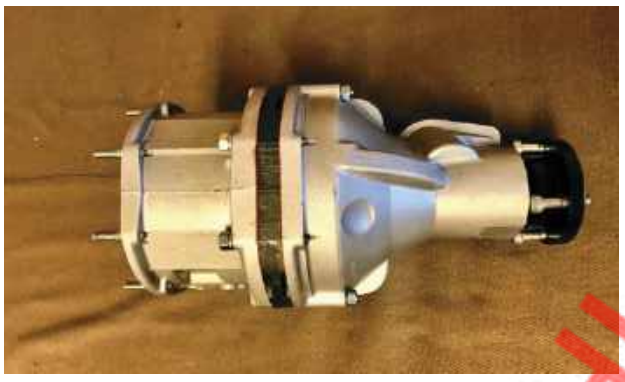
The first style of gearbox already mentioned was the three-synchro unit that had synchromesh on 2nd, 3rd, and 4th gears. The casing was made from aluminium and had a dipstick on the right-hand side of the gearbox to check and top up the oil level. The gear lever sat on the top extension; you will find that the early three-synchro model tunnels are shaped very differently at the top and moulded for this style of gearbox.

On the top of the tunnel was a metal extension, that was bolted in place around the central section, with a gear lever that extended out and backwards, there was a small kick forward to bring it into a more natural position for the driver. The gear knob itself was a Bakelite item that was pear-shaped and had markings in white, so the user could find the way around the gearboxes standard H pattern for the forward gears with reverse over to the left and back.

The main changes to mention on the three-synchro gearbox are the first motion shaft in October 1964, the input spigot was a larger size, increased from 0.62in up to 0.85in and the casing was modified too.

During 1963 the option to have a Laycock D-type overdrive unit was offered at an additional cost; the gearbox was a different design to accommodate the overdrive unit. The rear extension on the gearbox housing was shortened to make room for the overdrive; the gear lever was also changed to a single bend in the lever at the bottom.

In late 1965 the second gear synchromesh was updated and in September 1966 a switch to activate the reverse lights was added.



Overdrive unit

Gearbox Ratios and overall ratios for the three synchro models		
	Gearbox ratio	**Overall ratio**
First gear	3.6363:1	14.2142:1
Second gear	2.2143:1	8.6557:1
Third gear	1.3736:1	5.3694:1
Fourth gear	1.00:1	3.909:1
Overdrive	0.82:1	3.1350:1
Reverse gear	4.7552:1	18.5881:1

In late 1967 the original gearbox was replaced by a full synchromesh unit based on the MGC gearbox. This one was designed to handle the 150 bhp of the much larger three-litre engine of the MGC and was rather over-engineered when mated with the standard MGB B-Series engine. The same gearbox unit was also used in the 3.5-litre MGB-GT-V8.

An automatic three-speed transmission was offered as a factory option but was not well received. Many thought it took the driving pleasure away from the car along with slowing things down with a very relaxed gear change and not the smoothest of auto

gearboxes; the option was soon dropped as sales proved it was not popular enough to continue with.

MGB engine attached to gearbox and overdrive

The four synchromesh gearboxes appeared in the MK2 models on all GHN4 and GHD4 cars; the gears were housed in an all-new casing with closer ratios now being used. The four synchro gearbox was wider, so the gearbox tunnel in the body shell was also changed to allow this larger box to fit, a few inches of room was lost in the foot well, but that was worth it in exchange for the enhanced feel and quicker operation of the new gearbox. With the new tunnel also, came a change in the gear lever as the altered design allowed the lever to exit straight up and the bulge around the gear lever on the interior of the tunnel was gone leaving a smoother cleaner look.

3 synchro gear lever with the original style pear drop gear knob, note the kink in the gear lever as all the early cars had.

Gearbox Ratios for MK11 1967 - 1974 cars		
	Gearbox ratio	**Overall ratio**
First gear	3.440:1	13.446:1
Second gear	2.167:1	8.470:1
Third gear	1.382:1	5.402:1
Fourth gear	1.00:1	3.909:1
Overdrive	0.82:1	3.205:1
Reverse gear	3.095:1	12.098:1

Gear lever for MK 2 version

Minimal changes occurred from the start of the four-synchro gearbox and the only real noticeable changes were the design of the gear knob and surrounding console design. The gear lever knob went to a golf ball-type design and again with white numbering showing the layout of the forward-reverse gears that remained in the same position on all gearboxes.

This gear knob continued from 1967 until 1973; it was then replaced by a plastic-style padded item before finally going to the larger switch/gear knob operating the overdrive unit, this was definitely more convenient to use than the dashboard-mounted version but did not feel quite as nice in use.

Gearbox Ratios for 1974 - 1976 cars		
	Gearbox ratio	**Overall ratio**
First gear	3.036:1	11.867:1
Second gear	2.167:1	8.470:1
Third gear	1.382:1	5.402:1
Fourth gear	1.00:1	3.909:1
Overdrive	0.82:1	3.205:1
Reverse gear	3.095:1	12.098:1

Gear-lever from 1973-1977

The side casing of the gearbox had small revisions made for the start of the rubber bumper cars and was fitted with a filler plug instead of the dipstick; the speedo drive was changed which mandated a change of the speedo dial.

There were changes in the gearing as the rubber bumper cars had a slightly higher ratio on the first gear, this was altered in 1977.

Gearbox Ratios for 1977 - 1980 cars		
	Gearbox ratio	**Overall ratio**
First gear	3.333:1	13.03:1
Second gear	2.167:1	8.470:1
Third gear	1.382:1	5.402:1
Fourth gear	1.00:1	3.909:1
Overdrive	0.82:1	3.205:1
Reverse gear	3.095:1	12.098:1

MGB Overdrive Unit

Electrically engaged overdrive gearboxes were an option on all MGBs from early 1963. The overdrive unit worked in third and fourth gears until 1977 when overdrive was only operational in fourth. The overall ratio in third-gear overdrive was almost the same as fourth-gear direct; so many did not see the benefit of using overdrive in 3rd gear. The new overdrive unit used a toggle switch on the dashboard, later moved to the wiper stalk in 1974 and then to the top of the gear knob in late 1976 where it stayed for the rest of the production run.

The overdrive gearbox made long-distance cruising more appealing. With the road network expanding, and more motorways being built, the MGB had to keep up, this made for a more comfortable and quieter, not forgetting more economical drive. Nowadays, to many drivers, the thought of flicking a switch to operate an extra gear is quite novel and an experience in itself. The ability to use the 5th gear without even using the clutch pedal can feel very alien to anyone born after 1970. Today the traditional MGB still relies on this tried and tested method although there are several other options.

Five-speed gearboxes from the Ford Sierra and the Mazda MX5 are both available; they make the MGB experience even more comfortable, the latter because of smoother gear changes and closer ratios. One argument suggests this makes MGB ownership even more pleasurable while some might say it detracts from the original feel, either way, it keeps the MGB on today's roads, where it belongs.

There were three different types of overdrive fitted to the MGB.
Laycock Type D OD 1020 TPM for the OD and 1040 TPM for the non-OD 1968 to 1974 Laycock Type LH OD Rectangular-shaped access cover Oval clutch fork boot Dipstick A black label on the OD solenoid cover Speedometer-driven gear that was white with 21 teeth 1974 to 1980 Export Roadster Production figures for the automatic gearbox Production figures for the automatic gearbox Laycock Type LH OD Rectangular-shaped access cover Square clutch fork boot Side fill plug (no dipstick) Blue label on the OD solenoid cover Speedometer driven gear was red with 20 teeth

Automatic Gearbox

An automatic gearbox in a sports car I hear you cry, but MG did decide to offer a three-speed Borg-Warner type 35 gearbox to the line-up. Initially, this was likely to be aimed at the North American market but did not sell in any quantity, the automatic option only lasted from 1967 when it was first introduced until late 1973 and was the same box as offered in the MGC.

Automatic gearbox selector

The gears were selected by a neat-looking gear lever that worked its way through the auto selector where you could choose between Park, Reverse, Neutral, Drive, and Low 1 and Low 2.

In total, it is reported that just over 1700 MGBs were fitted with the automatic gearbox and the majority were GT models, and the records show that most of the auto cars stayed in the UK. The automatic option was never re-introduced into the line-up, and after driving several myself over the years I can see the appeal of the relaxed cruising driving style, but it just doesn't get enough out of the engine and does take away some of the fun factors that an MGB gives. The figures below confirm that the MGB automatic option was not produced in large numbers, not that many survive today so is quite a rare machine. However, the lack of desirability for them has not done much for the value of the vehicle and they remain similar in price to a manual version.

Production figures for the automatic gearbox	
Year - 1968	
MGB GT home market cars	74
Export GT cars in RHD	10
Export GT cars in LHD	2
MGB Roadster home market cars	12
Export Roadster cars in RHD	2
Australia Roadster cars	36 (CKD completely Knocked down)
Year 1969-1971	
MGB GT home market cars	475
Export GT cars in RHD	40
Export GT cars in LHD	30
MGB Roadster home market cars	90
Export Roadster cars in RHD	10
Export Roadster in LHD	7
Australia Roadster	192 (CKD)
Year 1972-1973	
MGB GT home market cars	603
Export GT cars in RHD	29
Export GT cars in LHD	22
MGB Roadster home market cars	92
Export Roadster cars in RHD	3
Export Roadster cars in LHD	6

Chapter 5

Fuel System

As with all cars of its era the MGB was designed and built with SU carburettors as its fuel delivery method. It was a tried and tested route when set up correctly and it worked well. Even to this day, they offer excellent reliability and trouble-free motoring, provided they are maintained as they do wear out over time.

Throughout the MGB's life, the car was fitted with two types of carburettors; they were all very similar to look at except for the American market single Stromberg version. Initially, the MGB used SU HS4 carburettors, these sat on the right-hand side of the engine as you looked at it and a slight angle over the top of the inlet and exhaust manifold. All carburettors for the MGB were 1 1/2in diameter and fitted in the same place; the SU HS4 setup was used until 1972.

The next generation was SU HIF4 carburettors; they were introduced in 1973 for the UK market but did find their way under the bonnet in 1971 on some export models including the US cars. It wasn't until December 1974 that the SU HIF4 was replaced with the Zenith Stromberg; this was for the North American market only. These had an automatic choke instead of the pull-and-twist choke found on all other MGB models

Early HS4 style carburettors

Later HIF4 carburettors

Exhaust System

Who can forget the sound of the MGB when it's first fired up, and the distinctive roar emanating from the rear of the car? The exhaust system helps make the MGB recognisable from the sound of all other classic cars. People who love these cars will have a smile on their faces, which makes them glad that these cars still exist.
The exhaust system was made from mild steel and ran the full length of the car and mated up to the cast iron manifold. There were three types of manifold one for the early cars 1962 -1970 which had a thicker flange and one for 1970 onwards which used a thinner flange.

The North American cars from late 1974 had the other version that used the single carburettor system for emission control; these had a single downpipe. In 1975 a catalytic convertor was fitted just below the manifold for the strict Californian laws and these were eventually rolled out on all North American MGBs.

Exhaust Manifold

Inlet Manifold

The inlet manifold had many different variations depending on the exhaust manifold and carb setup, the changes are detailed below;

INLET MANIFOLDS		
	FLANGE	**CASTING NUMBER**
12H911	THICK	12H708
12H1397	THICK	12H1398
8G767	THICK	12H2568
8G774	THIN	12H2568
CHM171	THIN	12H2568
8G767	THIN	CHM171
8G774	THIN	CHM171

They all had the same casting numbers but did have different flange thicknesses; there were also differences on the plugs, some have them at the top as some are cast, and some are brass plugged.

The exhaust itself saw minimal changes and was the same for both Roadsters and GT's the most noticeable change being the rear tailpipe changing when the rubber bumper cars emerged as the pipe was angled downwards away from the bumper for extra clearance. In contrast, the chrome bumper exhaust exited straight out. The rear silencer is cylindrically shaped with a flatter middle box. These materials changed very slightly then to improve the life expectancy of the exhaust and on some versions to quieten them down, this was required for cars sent to Switzerland and the noise level regulation was set at 82dB in the late '70s.

Standard MGB 1800 exhaust system

Rubber bumper tailpipe

More modern exhaust systems are now available, most people choose a stainless steel system which offers a longer life span of the exhaust, and even stainless steel manifolds can now be purchased. The heavy-cast unit is replaced for those wanting to extract a few extra horsepower.

Sports systems with straight-through pipes are available to give your MG that added power & noise but it can get a bit tiring on a long journey.

Choke Cables

The old-fashioned choke was fitted on nearly all cars during the '60s, '70s, and even the '80s. It has since long been replaced with modern technology, especially on fuel-injected cars that do all the work for you. Still, back then we had the pre-starting routine, which was, ignition on, choke full out, crank it over and wait for the engine to fire into life, and gradually push the choke in as the engine warmed up. This is what makes driving a classic car like the MGB so magical as it transports you back to a simpler time when you needed a real key to start your vehicle.

You were part of the operation learning how to start it up, taking care not to flood the car, and remembering to push the choke in as it started to judder on you. This is

driving, it's an art that is disappearing as many people are alien to choke cables, seeing one with a washing peg holding it in place is somewhat unheard of nowadays.

The original had a simple round knob with a 'C' logo on the front. This was fitted from 1962 - 1970 then it changed to a similar-looking, but slightly larger. The new one had a 'fan' logo on the front and was used on the HS4 carburettors.

The later HIF Carburettors for the 73-74 chrome bumper cars used my own choice of cable and knob until 1976 when the' T' style knob was fitted and remained this style until the end of production. Other variations for North American cars were used; even a square-style choke was installed at some point.

Choke cable

Fuel Tanks

Initially, the fuel tank on the MGB was fixed to the car with two metal straps that held the fuel tank to the underside of the car. These were quite fiddly to fit and did cause corrosion issues over time to the relatively small 10-gallon tank.

The fuel gauge came from Jaeger for the cars up to GHN347462 and Smiths gauges were used after this. From 1965 the fuel tanks were altered and enlarged to 12.7 gallons and all Roadster and GT models were fitted directly to the body, the tank itself had fastening holes all around the top of the tank to bolt it up under the boot floor area.

This fuel tank remained until the end of production but with a small modification when the drain plug was removed in January 1974. The rubber bumper tanks from

1977 had the pick-up feed for the fuel coming from the sender unit and not a separate pick-up that can be found on the cars from 1965 to 1976.

As a result of this change, the pickup of the sender units changed, 1962 they had a screw-in type tank sender unit, and in 1965 went to a locking ring fit which simply slotted into place with a seal and ring used and locked by a larger circular ring, the final tank unit went from 1977 onwards with larger style sender unit with a built-in fuel pick up.

The fuel tank fitted to a car

Tank sender unit for 1965-1976

Tank sender unit for cars 1977 -1980

The fuel supplied back in the heyday of the MGB was of the four-star variety, which they ran best with, but since the demise of leaded fuel in the year 2000 many cars have been converted to run on unleaded petrol. Some owners prefer to use an additive with unleaded fuel; I have found that the use of higher-octane fuel always seems to make the MGB run smoother.

Filler Necks

Yes, even these changed over the years, and not the most thought-provoking section but enough to note the changes. The fuel tank filler point came through the boot floor, which connected to the filler cap, and the tubing mated them together. The angle did change, all cars up to 1976 had the sloping filler neck and then it was altered to a straight vertical design, so the connecting tube and filler neck were adapted to allow for this alteration.

The North American cars did see several changes not only with the filler neck but also the fuel tanks as part of the regulations and to help prevent fuel spillages and the escape of fuel vapours. If you have seen a US-imported car and looked in the boot, you will have noticed a vapour separation tank, which was fitted on the inside close to the rear wheel arch. These cars were also equipped with a different filler neck to prevent you from using any other fuel as the neck was restricted and designed only for unleaded petrol.

Fuel filler neck

Filler Caps

A round plain filler cap was used from the beginning and was a non-locking variety; this started as stainless steel before going to chrome in the first few years. Some filler caps again aimed at the North American market will have had a non-venting type. Many aftermarket caps are available, and most will have been changed to a locking style to prevent the theft of fuel as the cost spirals. However, these were not big problems back in the '60s, and the '70s were just a sign of the modern.

FUEL PUMPS

The MGB was fed its fuel by a SU fuel pump that sat under the rear wheel arch near the battery compartment. The gentle tick of the pump as you switched the ignition on was always comforting much more so than when it ran continuously as you found out you had run out of petrol. The first pump used ran until August 1964 when it was replaced but with only minor alterations to the body of the pump.

None Locking petrol cap

Locking petrol cap

Early 1968 saw an additional breather when the pump changed, in 1974 another rubber bumper model changed, and the fuel pump mounting was moved to the boot area. It sat half in the boot to the back right area and half out of the car and was covered by a black metal cover for protection. The last fuel pump change in January

1977 was merely an updated version with updated parts for improved efficiency and supposedly quieter. Now more modern pumps are an option as things have progressed since these were designed, but the positioning remains the same.

Fuel pump in its location

The accelerator cable was an item that can be defined by either chrome bumper or rubber bumper cars. Other changes to the cables were the length to accommodate either right-hand drive cars or left-hand drive cars; the left-hand drive car cable was shorter.

AIR FILTERS

The air cleaners were largely black, almost cone-shaped, and dominated the right-hand side of the engine bay as they perched on the side of the carburettors. They were four-piece and consisted of a back plate which held the alloy plate which then mated to the carburettor, next was the outer casing which housed the paper element.

The same style was used throughout the production with changes occurring in 1971 when Unipart labels replaced the Cooper ones because the supplier changed. Some minimal alterations were made to the casing for the next cars when the air intake curved round unlike the earlier straight filter housing.

Air filters

Air filters of different styles

Ignition System

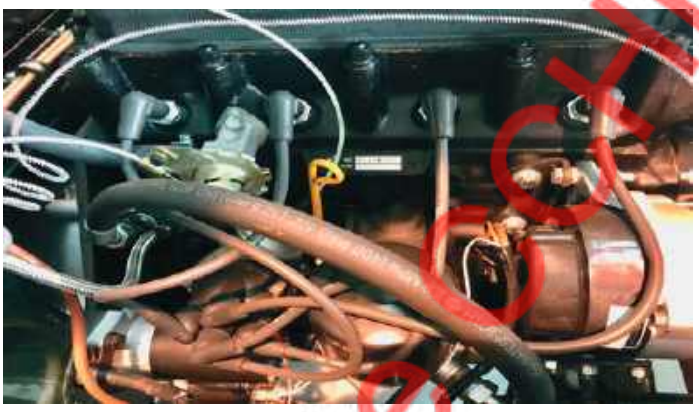
The ignition system was a very traditional setup for the time and was used throughout the life of the MGB. It consisted of a coil, distributor, and plugs and plug leads. You will find many cars now will have been updated with electronic ignition systems, but none of that modern wizardry was around when the MGB was first revealed.

A 25D Lucas distributor was fitted from 1962 through to 1974, with a few minor tweaks it remained largely the same apart from the cap which went from a side entry to a top-entry cap. In 1974 the 45D distributor was used. Plug leads were changed for the cars' different markets and some were fitted with suppressed leads for vehicles heading to France and Canada before they were provided to all as standard. In 1975

an electronic ignition system was used on export cars to North America for the models that had a catalyst exhaust.

The later 45D distributor had a combined amplifier and vacuum unit that was attached to the side of the main body of the distributor. However, some had an amplifier remotely fitted in the engine compartment.

The timing on a static engine was 10 degrees BTDC on the high-compression version and 8 degrees on the low-compression variant; the firing order was 1-3-4-2.



Plug leads and plugs on the engine

Engine Cooling

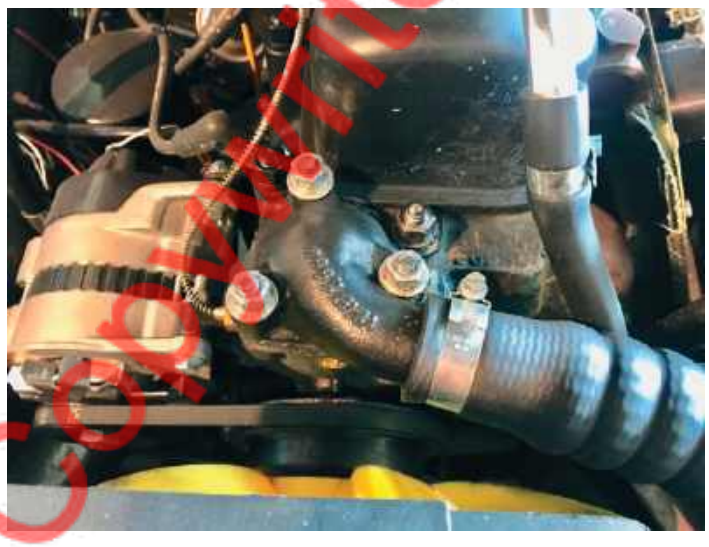
Cooling was taken care of by a large radiator that sat in front of the engine; it was cooled by a belt-driven metal fan connected to the crankshaft pulley that also powered the water pump. A thermostat positioned on the cylinder head regulated it all. The MGB often ran cold with the continually moving airflow that kept the temperature down as the fan ran at the speed of the engine.

It was only for the 1977 model onwards that electric cooling fans were fitted which helped the car warm up quicker and spun the fans into life when the sensor told it to start. The only exception to this was the V8; it was equipped with twin electric cooling fans mounted on brackets just in front of the radiator, they did have to work that little bit harder to keep the engine cool. The 3500cc unit with the bigger manifolds gave off more heat than was generated from the entire engine.

The radiator was mounted on a black cowling that bolted to the inner wings at the front of the engine bay; the first radiator fitted had an extended filler neck with the diaphragm having a cutaway to accommodate this. In 1967 the next radiator was introduced, not much different but the filler cap was now part of the radiator body that looked neater, and no need for any alterations to the radiator-mounting surround.

The third and final radiator used appeared first on the V8 cars and then was standardised on all models from 1976 with the mounting much further forward, as the engine layout had changed, the mountings for the radiator were part of the bulkhead layout. The electric fan was then mounted between the front bumper and the radiator with a black mesh cowl used to protect any fingers getting in the way of its operation. The majority of cars used a single electric fan although the V8 and some North American models did have twin-cooling fans.

The thermostat was designed to open at 82 degrees C that was the standard fitment; there was an option of a 74 degrees C for warmer climates and also an 88 degrees C for cars going to live in colder parts of the world.



Thermostat housing

An expansion tank was added for the later 1976 onwards cars as part of the semi-sealed system, and this was fitted on the right-hand corner of the engine bay, unlike the V8 version that was on the front left-hand side of the engine compartment.

Expansion tank

The cooling fan itself started off as a three-blade metal item that was painted yellow in 1974 it eventually became a seven-blade plastic fan for all UK cars. North American models used the three-blade metal fan and from 1967 went to a six-blade metal type before switching to the seven-blade plastic fan in late 1972. As mentioned earlier, the electric cooling fans took over in 1976.

The water pump that was located on the front of the engine had only a few variations, the early three-main bearing engine was unique to this model, and the five-bearing engine water pump had two main types that had different depths. These could be fitted to any model providing the correct pulley was fitted. One other pump used was for the US and Canada, which featured a smog pump and was altered to allow clearance for the smog pump brackets.

The water pump

A radiator on early style car

A radiator on a later Rubber bumper model

The MGB was initially offered with an oil cooler as an optional extra but became standard in 1964 with the five-main bearing engine. This is mounted on the front panel behind the chrome grille in front of the radiator, with two rubber hoses snaking through the cowling to connect to the engine.

Oil cooler in front of the engine bay

The oil cooler on early cars was 10 rows, but a switch to a 13-row cooler was used until 1974 when it reverted to 10 rows and its position changed, as it was not fitted underneath the front panel behind the valance.

Oil cooler mounted underneath

Chapter 6

Suspension, Steering, Braking, And Wheels/Tyres.

Sydney Enver and chassis engineer Terry Mitchell explored several alternatives for the suspension layout in hopes of addressing some of the ride issues without sacrificing handling. The ideal solution would have been to reduce the rear un-sprung weight by using either an independent rear suspension or a De Dion axle. However, cost considerations soon put a stop to either.

The MGB had a single and very defining virtue, which was its directness and the way the handling was predictable. It wasn't sophisticated, nor was it even very civilized, with no fancy additions or ground breaking enhancements. It simply did the job intended; the car handled reasonably well. For its time, it was comfortable enough to live with, wherever you pointed it, it went with minimal fuss.

To compare, similar cars like the Sunbeam Alpine, which admittedly was more comfortable, were let down by a more sedate feel that lacked what a sports car was supposed to be.

The MGB handled the way most buyers expected a sports car to behave; the simple design lasted well and was pretty much the same throughout production.

Front cross member showing steering rack and lower spring pans

The front suspension connects to the cross member, and four long bolts fix it with lock nuts that are visible above the chassis legs. The lower wishbones attach to the cross member and between them the spring pan assemblies sit.

The front shock absorbers fixed to the top part of the cross member with four bolts, the oil filled lever arms hung forward of the kingpin assembly to attach everything, and the coil springs located between the bottom pan and the underneath of the cross member.

The bare cross member

The front beam could be removed as a complete unit if needed to work on the suspension, but it is much easier to attach it to the car as it keeps everything, including the steering rack stable. The front beam came with a towing eye attached from early on in 1962, but it was not fitted from the start of production, it was included in November 1966.

Standard Front suspension and shock absorber.

Uprating the front suspension is a popular upgrade; this example has been fitted with a telescopic front kit to improve handling.

The front kingpins held everything together from the shock absorber at the top to the bottom pans, which housed the front springs. The kingpins had two grease points initially. A third was added in 1963, we all know the importance of keeping these lubricated. A small amount of regular maintenance does help these from drying up; if left, they inevitably need replacement.

Everything was mounted using rubber bushes from top trunnion to wishbone arms; the pure simplicity of the design made them simple to work on; they were not over-engineered.

Kingpin and stub axle assembly

Initially, MG offered a front anti-roll bar as an extra, when the GT was introduce in 1965 it became a standard fitment. The Roadster followed suit in 1966, this did help tighten everything up at the front and made the handling more direct with a much more positive feel about it.

Front anti-roll bar

The front springs differed slightly from the GT to the Roadster and were somewhat longer with a different spring rating to help compensate for the extra weight the GT carried. In 1972 the front springs on both Roadster and GT models changed, slightly longer springs were used, and this increased the ride height by 0.5in. The next major overhaul was the rubber bumper model, which I believe was the most controversial change; this was all due to the US market, which dictated how things had to be done. The ride height increased by 1.5 inches; this did nothing for the handling of the MG but was necessary for US regulations, the increased bumper height completed the new shape.

The front cross member changed slightly to make this happen, the new one was then used on all cars from this period through to the end of production, this included the V8 version. The cross member had two main variations one for the chrome bumper cars, and the other for the Rubber bumper model, the only change to these were the RHD, and LHD versions that differed where the steering rack was mounted. The front springs were now the same on both Roadster and GT; however, the front anti-roll bar was updated for the GT model. It was omitted on the early rubber bumper roadsters until the 1977 model car when the uprated version was included on all MG's as a standard fitment.

2 ***Images showing the ride height differences***

The rear suspension set up on the MGB was again an aged but effective design; the rear axle was secured in place by the leaf springs attached from the front spring hanger mounts to the rear connection just behind the rear valance. The oil filled lever arm shock absorbers were joined by two large bolts behind the inner wheel arch; these had link arms that connected the shock absorber to the base of the leaf spring by a heavy mounting plate.

Rear axle and leaf spring

The rear suspension on the MGB was sufficient for the car but, it could be a handful, especially in the wet. However, many upgrades are available today to improve the handling they do sometimes compromise the comfort. Yet, unless you are pushing the car a little too hard, the factory setup at the rear is very predictable and not too firm.

Rear spring

The springs were different on the Roadster compared to the GT. Initially, the Roadster used a six-leaf system with no interleaving, but from 1963 onwards, interleaving was included. Also, a fraction softer spring was used to aid in the lowering of the car at the rear.

When the GT was introduced, it had seven leaf springs as the GT carried more weight to prevent the car from sitting down too low, they did tend to soften quickly and provide a lowered ride height soon after delivery.

A further step-up are these telescopic rear shock absorbers with a full 5-link rear suspension upgrade bringing the MG into almost modern-day standards

Standard Shock absorber and link

We have seen this happen previously when the MGB was sadly transformed into the rubber bumper version and the rear springs were stiffened. The spring hangers were lengthened to get the ride height increased for the American market; the shock absorber links were also extended to match.

The increased ride brought about a lot of negative comments about the car's looks and the handling issues this change made. The MG was not as agile as before, and it was quite noticeable, in June 1976 a rear anti-roll bar was fitted which did tighten things up and made the MGB that little bit sharper, this helped stretch the car's life out longer but maybe did not silence the critics only pacified them a little.

Axle:

The rear axle of the MGB had two main variations, the first, known as the banjo type, was used on cars from the start of production and had a one-piece casing, the differential could be mounted directly into the housing, this style of axle was fitted until 1966.

When the GT began production, the Tube axle took over and was fitted on both models; however, it is noted that some Roadsters were still being fitted with Banjo

axles, the Tube axles were standard from chassis number GHN3132923 onwards. The ratio of the Banjo axle was 3.9:1, although some competition use differentials were also offered; they were not a standard fit for a factory car.

Banjo axle

The Tube axle was a much stronger unit while still retaining the same ratio of 3.9:1, all models apart from the MGB GT, V8 plus the automatic version, which used 3.7:1.

Both axles mounted into the car in the same fashion, they were held in place by the rear springs, these attached to it at either end using the long U bolts. The overall width of the axles did vary depending on which wheels were fitted as the hubs differed on either version with wire wheel cars nearly 2in shorter than the steel wheel version.

Tube axle

Both types of differentials are attached to the gearbox with a prop shaft to complete the connection.

The rear end had a universal joint that was attached to the axle; the other end had a splined section for the gearbox. The prop shaft had a few variations depending on the axle and gearbox combination.

Prop shaft length 1962-1965 30 inches (76.2cm) banjo axle with none overdrive three synchro gearbox 31 1/8 inches (78.9cm) banjo axle with 3 synchro overdrive gearbox

1965-1968 31 1/8 inches (78.9cm) tube axle with three synchro none overdrive gearbox 32 inches (81.3cm) tube axle with 3 synchro overdrive gearbox

1967 onwards 31 1/8 inches (78.9cm) tube axle was used for all models until the end of production.

Steering System

The steering on the MGB was operated by rack and pinion. It was the same style throughout the full production run; the only changes to occur were the very early steering racks, they had a grease nipple that was removed in 1965 and the rack was altered to suit the rubber bumper cars. The length of the shaft was increased as the columns changed for the rubber bumper models, as did the angle of the rack itself.

The changes made to the cross member meant the steering rack sat slightly differently where it met the steering column; it was much closer inside the bulkhead. The rack had a slight modification in June 1976 with a lower ratio but looked the same. The steering rack joined the column with a universal joint, and only two types were fitted, one for the chrome bumper model and the other for the rubber bumper version.

The different lengths of the steering shaft can be seen in this photo between the chrome bumper which is shorter compared to the rubber bumper steering rack which is several inches longer.

Although the steering rack did not change much, the actual steering columns had several variations over the years. There were four steering columns fitted; the first ran from 1962 - 1967 and then 1967 - 1969, after that, the column changed again for the 1969 - 1976 version and finally the last offering from 1976 - 1980. Each of the four columns had different splines, which meant the steering wheels could not be swapped between different years.

Steering wheels

The early style steering wheel was an elegant, but large wheel with its wired three-spoke design, it did make parking and manoeuvring quite easy, although legroom was limited due to the size of this wheel. This style was used from 1962 to 1969.

Early 3-spoke steering wheel

In 1969 the style of the steering wheel changed to a slightly smaller item, which was 15.5in diameter, and the outer rim covered in faux black leather and with a three-spoke design in alloy with each spoke having five holes in each and a black central finisher with an MG logo in the middle. The horn was at the end of the indicator stalk in 1971 and moved back to the centre of the steering wheel.

MK2 Steering wheel

In 1973 a new steering wheel design was fitted, it was the same size with the same faux leather rim, but no holes, now there is a stamped slot in each spoke, but this was short-lived.

During the same year, they were replaced with virtually the same style wheel, with no slots now just an impression of where they would have been stamped out. This wheel was used from 1973 through to the early rubber bumper cars and lasted until 1976. The horn remained in the centre of the steering wheel.

The steering wheel with pressed slots. This style was also used on all the MGB V8 cars produced

The last style of wheel used was the rather plastic-looking all-black 4-spoke wheel, likely this was a fashionable look at the time but the lack of any contrasting colour and against the all-black dashboard it seemed to get lost amongst a sea of plastic-looking finishes. The horn was now placed on the indicator stalk, and the central MG badge was the only thing that helped brighten things up.

The final style of steering wheel

The steering columns were not originally fitted with steering locks for the UK market; however, some other countries where the MG was offered for sale did have the option for steering locks.

It wasn't until 1970 that the UK cars had the steering lock fitted as standard as it was soon to become a legal requirement shortly after in 1971. It was the North American cars that used the steering lock from 1967, which was located on the right-hand side of the column and hidden inside the cowl.

The majority of the early cars had the ignition switch on the dashboard, then home market cars had the steering lock below the column underneath the dash further down the foot well, it was close to your legs during driving. Finally, for the rubber bumper, the ignition switch and steering lock combination were inside the steering cowl at the top of the steering column nestled between the stalks.

It was a much more convenient location and safer, and like the under slung steering lock was attached by two sheer bolts that broke away during fitting to stop any potential thieves simply unbolting it.

The steering cowls that covered the column increased in size on each update to hide the wiring and workings of the horn and stalks. The first steering cowls were black plastic with a cut-out for the indicator stalk and operation, they fitted neatly over the column and butted up to the back of the steering wheel.

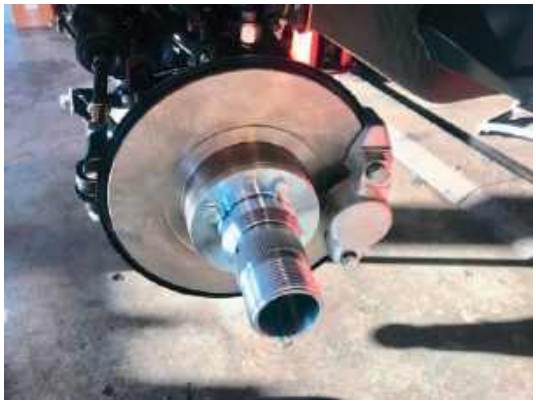
The cowl changed for the rubber bumper cars when the column grew in width, and the wiper switch was moved to the stalk, so one side operated the indicators and high

beam and the other side the wipers and washers. It was also at this point the steering column moved. Finally, the last steering column used ran from 1976 onwards, which again housed the two stalks and ignition switch, but also the light switch was positioned in the cowl, making it quite a chunky plastic cover.

Steering cowls and indicator stalks x 4

Braking system:

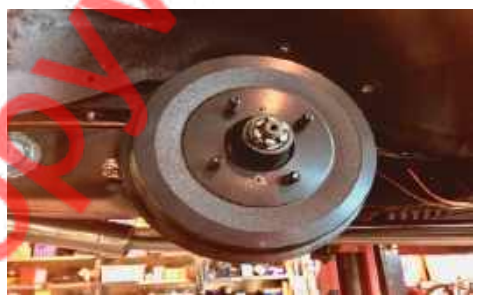
All models had the same brake layout with disc brakes at the front and drum brakes at the rear; this included the V8 cars. The brakes were operated by a Lockheed master cylinder, which sat in the pedal box just above the driver's feet. The pedal was attached to a rod in the pedal box, which pushed the master cylinder, which in turn stopped the car. From the master cylinder, the brake pipes ran down the inner wings to the front brake calipers and the rear axle where they split off to each of the rear brakes.



MGB front disc, calliper, and wire wheel hub

The front brakes did the majority of the work via the brake callipers, which wrapped around the disc, they were sufficient to stop the car, and assisted by the rear drum brakes offered enough braking assistance for most.

However, anyone used to driving a modern car with the ABS systems and instant response the pedal gives can find the brakes on an MGB a little daunting at first as you do have to push the pedal harder than on most modern machines. Light effort braking is what's commonly used today but that's not how they were all those years ago. This takes us back to having to drive cars again, without the need for all the driver's assistance that is available now, proper motoring like it was back in the day.



Rear drum brake

The front brakes did not have any significant changes. The calliper discs and pads remained the same, this was also the case for the rear braking system, apart from the difference in wheel cylinders, these changed for the Roadster and GT.

Early-style brake and clutch cylinders within the pedal box

The brake master cylinders did change; they were initially a metal, box-style reservoir, with later examples using a clear plastic version. This same style of brake master cylinder was used from 1962 through to 1977 when it was changed in favour of a dual-line system.

The pedal box was altered to accommodate the new master cylinder along with the inline servo unit; this was now part of the pedal box assembly.

Later style dual circuit pedal box with inline servo

The braking system was improved by adding this servo unit, which greatly assisted the braking system. It was first offered as an optional extra on the UK market cars from February 1970 and then became standard in August 1973; this same remote-style servo was used until 1977.

Remote servo unit

The North American cars had a dual circuit system from as early as 1967, in some European countries, the dual circuit system was introduced in 1970. The North American cars had the later style master and combined servo from the late 74 with an improved version in 1976.

Pedals in the foot well

A few minor tweaks were made to the handbrake. But the operation of it remained pretty much unchanged, the handbrake cable was modified, and it ran from 1962-

1966 for the banjo axle, from 1966-67 for the three synchro tube axle with the next running from 1967-1974 with the four synchro tube axle.

Then it ran from 1974-76 for the rubber bumper cars with a cable until finally being adapted to the use of a rod fitted across the axle from 1976 onwards.

Handbrake lever

The actual lever itself changed in 1972 when the angle was changed to allow more room for the centre console and armrest that was fitted for this year. The earlier item would cause the lever to touch and your hand would get caught when applying the handbrake.

The hand brake squeezed between the centre console and seat.

Wheel Options and Tyres

When we remember the image of an MGB, many times it's of shiny chrome bumpers and wire wheels, but the wire wheel option was not a standard fit on the MGB as they were initially supplied with the silver steel disc wheels. All wheels fitted to the MGB are 14" in size with a four-stud pattern, the disc wheels on the Roadster were 4Jx14, and the GT version was 5Jx14 and was fitted with a plain bright silver hub cap that clipped over the central part of the wheel and hid the wheel nuts. A version with an MG logo on the hubcap was offered as a factory option from 1963-65, and then they became a dealer option until 1967.

Original steel wheels

The wire wheel option was available but had to be specified from the factory, as the installation of these requires a splined hub for the centre-locking wheel to slide over before being held in place by one large locking nut either in octagonal shape or with a two-eared design. The octagonal nut was used on most export cars from 1967 as the eared spinners were made illegal in some countries and deemed dangerous, but the UK market saw them used for a little longer.

The spinners on early cars from 1962-65 used a finer thread for the spinner, these were 12 TPI (threads per inch), and from 1965 onwards they used an 8 TPI type for both eared and octagonal spinners.

2-eared spinners

Octagonal nut

A splined rear hub

The spinners were specific for each side, each one imprinted left-hand side or right-hand side, the thread was designed to match each one. They were heavy lumps, made from aluminium bronze and chrome plated. The wire wheels were an option on all UK cars throughout the production and were also fitted to several LE cars during 1980.

For the 1970 model, the next update arrived for the wheels; the disc wheels were dropped in favour of the rostyle wheel, this silver and black steel wheel was a 5JX14 in size. It was a pretty simple design with silver outer and inner sections painted black with a wheel centre that had the MG logo on which hid the grease cap for the

wheel bearings. This style of the wheel came out for the GHN5 and GHD5 cars and stayed in production until the end. A chrome rostyle wheel was also available from early 1970 and the chromed section would typically be painted silver. These were offered from 1972 in the UK but were deleted from the option list on all cars from 1976.

Rostyle wheel

The last version of wheels was fitted to the LE, they were a five spoke alloy wheel in a dark grey and silver finish, these were offered for all cars from 1979 - 1980 but were standard on the LE version. The only other offers came in the form of the V8 wheel, which again was 14". It was an intricate design in black and silver; these were also used on the Jubilee version in 1975 but painted in black and gold.

From the early style disc wheels, which do look very elegant through to the rostyle wheels and the variations for the limited edition models, each step through time shows the changes in design and the constant need to update the car's appearance. Although many would argue that the wire wheels are a must, anyone who has spent a Sunday morning cleaning a set of wire wheels will tell you they look great, but the upkeep is constant.

Alloy Wheel Options

Many different tyre options were fitted to the MGB, and as expected of the era, they started off using cross-ply tyres with an inner tube, the chosen manufacturer was Dunlop, and these could be fitted with a white wall band for the real classic look. Radial tyres gradually found their way in, and from 1965 these were offered with the Roadster using sizes 155/14 and the GT 165/14. Inner tubes were used on all styles of wheels apart from the MGB GT V8, this was first to be fitted with tubeless tyres and slightly wider at 175/14 for extra grip.

Tubeless tyres saw their way in as standard at the entry of the rubber bumper cars and still sporting Dunlop rubber. From 1978 other manufacturers became approved, so the likes of Michelin, Firestone, Goodyear, Pirelli, and Uniroyal were used. The last of the cars with the alloy wheels fitted had 185/70/14 tyres which were a little wider again and with a lower profile.

Today a 14" wheel is deemed small, and many MGBs have been fitted with larger 15" wheels as the choice of tyres is far higher for this size. They also fill the arches nicely, there is a wider choice of wheels from wire wheels to Minilite style along with a few more modern alloy options and even 15" replicas of the V8 wheel available.

V8 wheels

Chapter 7

Electrical System

The electrical system on the MGB started life using a positive ground 12V system until 1967 when the negative ground was introduced. Twin 6-volt batteries were fitted in 2 battery trays behind the seats that housed the neat, smaller batteries.

The twin batteries were replaced in 1974 with a single 12V battery, which made life a lot simpler for replacement. If the car needed charging or a jump-start, many people were unsure where to put jump leads when they were faced with four possible poles to place the leads on; you can imagine lots of sparks and flashing going on for the inexperienced.

Twin 6V battery placement

Single 12V battery in place

Wiring Harness

The wiring Harnesses was made more comprehensive as additional electrical items were added to the MGB, they were for the most part in two sections, one which ran from the front to the rear to connect everything up from the rear lights to fuel pumps. The main loom incorporated the dashboard section for its controls, lights, and

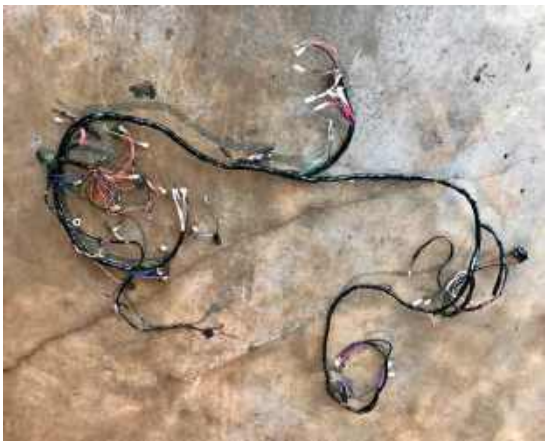
switches that passed through the bulkhead into the engine bay. They connected to the fuse box and alternator through to headlights, indicators, and horns. It was only the later harnesses that had a separate dash harness.

The first wiring looms were cloth bound, later using a PVC covering, the loom changes are below.

MGB Wiring Harness	
1962/1967	Positive earth and early cars with Jaeger gauges then moving onto Smiths gauges, dynamo fitted.
1967/1968	Negative earth cars with an alternator and separate control box
1968/1969	Alternator with integral control box
1969/1970	Horn control on the indicator stalk
1970/1971	The horn back in the centre of the steering wheel
1971/1972	Radio and additional accessories in the console
1972/1973	Tachometer change to RVC from RVi
1973/1974	Hazard warning lights fitted
1974/1976	First of the rubber bumper cars with O/D on the stalk
1976/1977	Later rubber bumper, O/D on the gear knob, single line brakes, separate dash loom now used MGB Wiring Harness - 1977 Dual-line braking system
1978	18 ACR Alternator re-introduced
1979	Rear fog lamps fitted
1980	The final change with spade connections for the radiator fans was now used.

The other additional harnesses available were for the overdrive wiring which ran from the overdrive unit on the gearbox to the bulkhead that then joined into the main loom.

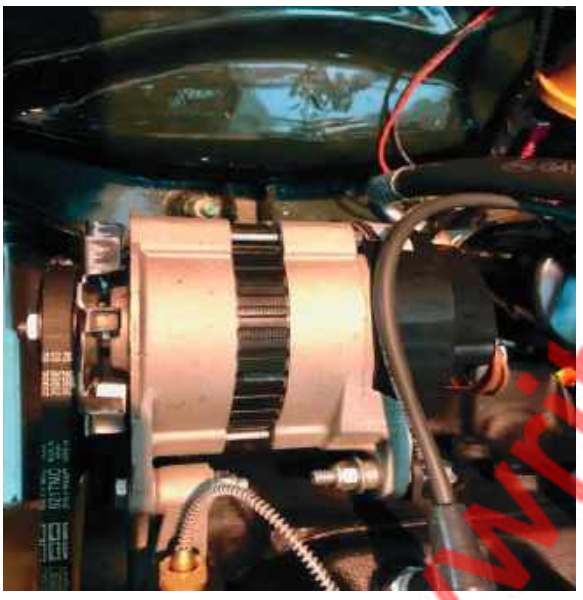
The overdrive harness changed from three synchro cars to three synchro cars with reversing light switches then onto four synchro cars for the GHN4 cars followed by a change again for the GHN5 cars. A separate harness was installed for the upcoming rubber bumper cars with the switch for the overdrive on the gear knob.

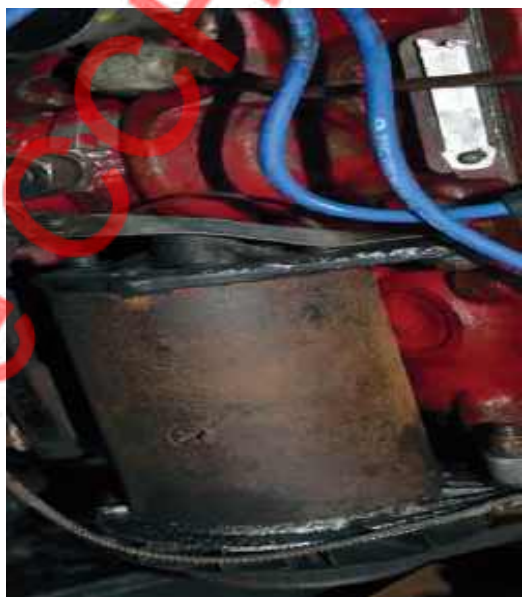


Wiring Harnesses

Dynamo/Alternator:

Most cars from the beginning used a Dynamo; this was sourced from Lucas and was located on the left-hand side of the engine with a control box mounted on the inner wing. An alternator replaced the dynamo in 1967 when the MGB changed to negative earth. The location was in the same place and with a separate control unit, however, in 1969, this changed to a 16 ACR alternator with a regulator built-in. A small change occurred in March 1972 with a 16ACR alternator with a slightly modified regulator with apparently a surge protection device, but in 1973 this was replaced with a 17ACR unit. Finally, in 1976 an 18ACR alternator was used.





Dynamo and alternator images

FUSE BOX:

The fuse box started life with just two fuses and then was updated to 4 fuses compared to modern cars which have several fuse boxes dotted around a car each with 30-40 fuses in them, it shows the simplicity of the electrical system. The MG didn't need lots of electrical gadgets and should anything electrical go wrong it was a simple task to remove the fuse box cover and check the fuses in a matter of seconds. Except for inline fuses fitted and a voltage regulator, the system is straightforward to navigate and locate faults. The main reason for failures today is many wiring harnesses become old and brittle, and connectors become loose or/and weak, but back in the day, it proved to be a reliable setup.

The small, neat fuse box housed 4 of the MGB fuses.

STARTER MOTOR:

Lucas again was used, this time for the starter motor on the MGB and a Bendix drive unit fitted which gives that familiar whirring sound when the key is turned as it throws itself in to fire up the engine. 1967 saw the pre-engaged starter motor fitted for the MKII with a starter solenoid switch mounted in the engine compartment. A separate starter relay 6RA was installed for the 1970 model for all 18V engines, during the 1972 period a Lucas 2M100 starter motor was fitted, this ran until the end of production.

Starter motor

LET THERE BE LIGHT:

Headlights, yes they are useful and very much needed, and the MGB was fitted with a pair of 7" sealed beam units which lit up the road ahead (well sort of) again we cannot compare with modern bright LED lights, but I know we all do, but the MGB had sufficient lighting which did the job. Many modern variations are widely available and often used to help aid vision on the narrow country roads that we all like to enjoy using in a classic MGB.

Standard MGB headlight

The standard headlights changed very little during production with a small upgrade to the sealed beam units for the 1970 model.

The main change was when the headlamp and sidelight were combined for the rubber bumper cars and in June 1976; they were treated to H4 headlamps. The actual headlight buckets and wiring were all virtually the same, and each one had the chrome headlight rim surrounding it which covered the adjuster screws and fixing screws and clipped over to finish things off.

The headlight flasher was an option at the start, this became standard from 1965 on all models, and the primary and dipped beam operation was found on a footswitch just to the left of the foot well near the clutch pedal. This was in the same position you would usually rest your left foot while driving. This was remedied in 1970 by the more robust indicator stalk that now operates the headlight flasher and the high beam. The UK market was a little late in using this as it was adopted onto North American cars from as early as 1967.

Uprated MGB headlight

The sidelights and indicators were in a combined light unit for all chrome bumper cars with the sidelight sitting on the farthest part of the vehicle and the amber indicator next to it. This side light and indicator combination went from 1962 through to 1974.

A minor change was the position of this lamp as it moved nearer the front grille for all 1969 models onwards. You will find some countries had the amber lens white, which was mainly for the early North American cars but also found its way into Italy. The North American cars also had the sidelight lenses in full amber colour from 1967, and from 1970 a side repeater was fitted to the front wings again for the North American cars that were very practical but lost the fluid line of the MGB's profile. At this time a red rear lamp was installed on the rear wing just in front of the rear light cluster for the same export market.

MGB side and indicator light

The rear light units for all early cars from 1962 -1969 had a four-piece design, the back plate bolted to the vehicle, and a chrome surround held the two-piece lenses in place, the top lens for the amber indicator and the bottom lens for the rear lights and brake light. The North American version saw the full light unit in red for both indicators and rear lights.

From 1969 the rear light unit changed to a more angular-looking piece which was a sturdier rear lamp with a single rear lens which again was split for indicator and rear/stoplights. This style of rear light lasted until the end of production, but the actual shape of the shell allows either style of light to fit. Yet again the rear lights for the North American cars had the amber section moved to the bottom part with the red portion at the top.

Both styles of rear light units

DETAILING THE REAR LIGHTS:

The number plate lamps on the MGB started life on the rear over-riders, this is where they remained for most of the production run, in 1974 they were moved onto the bumper itself using the same style of domed cover lights but fitted directly under the number plate.

The North American cars did see another variation when split rear bumpers were used, these were similar to the MG Midget, which existed for only one year during 1970 - 71 and then they fitted back ones on the over-rider. After 1974 the number

plate lights were again installed on a backing plate for the number plate. When the rubber bumpers took over the over-riders were removed so a new way to illuminate the plates was used. The new lamps were all chrome but changed in 1976 to an all-black design.

Rear number plate lamps on the over-rider

Later style lamps fitted to number plate brackets, lower unit is USA style

Reversing lights appeared in March 1967 for the first time and became standard on all models. These square-shaped lights fitted in the rear panel on either side of the rear number plate at the furthest point towards the rear wings and the panel was pressed out for the light and lens to sit in.

Reversing light

Rear fog lights were not a legal requirement during the '60s and '70s in the UK, so no provision was made for them, but as laws changed, the need for fog lamps surfaced. This prompted a pair of red Lucas lights to be fitted under the rear bumper to satisfy the new regulations, from June 1979 and for the remainder of the MG's limited run thereafter.

Rear fog lights fitted below the rear bumper

WINDSCREEN WIPERS

A Lucas motor initially operated the MGB Roadster wipers that moved the 10" blades 106 degrees across the front screen. The GT had slightly longer blades at 11" to clear the higher windscreen with a bigger sweep of 115 degrees. The motor itself was a single-speed square-shaped unit operating the cable that in turn moved the wiper rack to turn the wheel boxes that the actual wiper arm was mounted to (it sounds more complicated than it actually was). This style of motor was used until 1967 and was on all GHN3 cars. The GT had a single-speed motor from 1965 until 1967, but this was the more modern-looking round motor. From 1967 both Roadster and GT had the same style of wiper motor fitted and did look identical but had different drive gears that altered the sweep of the screen. A two-speed motor was next on the upgrades list, which helped clear the screen when caught in heavy rain.

It is worth noting that the wiper's arms and blades changed, the early cars had a silver polish finish and were narrow in design with a hook that clipped the arm to the blade up until 1967. Later a more robust push-in clip system was used; this improved the connection between the arm and blade but was still a narrow design. Wider blades and arms were later used from 1968 onwards and again in a bright finish until they decided to fit matt black from August 1972 but retained the broader style.

All GT cars had two wipers but the MGB Roadster destined for the North American market was fitted with three wipers from 1969 onwards and 1970 onwards for other export markets including Germany, Sweden, and Norway.

It was a good idea and did help clear the windscreen efficiently in bad weather; the only downside is the front area could look quite busy and cluttered with the extra wiper arm and blade. The UK Roadster was always equipped with just the two wipers.

Wiper motor types

Photo of silver finished wiper blade and arm

Wiper blades for both Roadster and GT

Other electrical items of note are the fitment of heated rear screens on the GT, it was an option from 1966 onwards and became standard from the 1972 cars.

Heated Rear Screen

HORNS

The Lucas 9H horns; or I should say horn, originally had just one high note fitted from the factory, a low note horn was an option but from 1970 twin horns were used. In 1974 Mixo horns were fitted until production ceased taking over from the Lucas 9H horn. These were provided using angle brackets behind the front grille in front of the radiator.

Horn fitted to the car

Chapter 8

MGB Interior

The MGB interior started life as a very basic but practical and functional space with all the dials set out just where you would expect them, in view when driving so as not to distract yourself from the road ahead, switches simply placed along the centre section of the dashboard all in an orderly fashion.

The only exception to this was the overdrive switch which on the early cars was placed on the right-hand side of the dashboard near the fuel gauge which worked perfectly well but did look like an afterthought compared to the rest of the layout.

As for the actual interior trim and seat design and trim panels, these varied a lot over the years and much of this was influenced by fashion and the era they were produced from the basic but pretty leather seats with contrasting piping in the early 60's cars to the somewhat bold orange deck chair style seats that adorned the late 70's MG's.

Like many other areas of the MGB, everything was based around the same basic design and shape, so just like the exterior changes that were made which still kept the lines of the original the dashboard was always kept the same rough size and shape on the UK models but more and more features were added to keep things fresh and appealing to the MGB followers.

Nothing radical really happened as this would have cost far too much to develop and manufacture but constant subtle enhancements were made and from the four main dashboard designs to the 3 seat changes the core of it all remained very MGB. The dashboard for the North American market however was very different from the MK2 version with the padded recessed dash layout so the actual dashboard was several inches set back towards the windscreen, it was a metal dashboard covered in a padded sponge and covered in plastic to help absorb any potential impact during a crash.

Dashboard layout of the original Mk1

Close-up image of crash rail

LHD USA Dashboard

All UK cars were fitted with a crash rail in front of the dashboard and ran the full width of the car. The post-1967 US cars were the exception to this with their recessed plastic pillow. The finish of the UK dashboards was in a crinkle matt finish and suited the low-key design of the early cars, this was maintained throughout the years with only slight changes in the crinkle finish, the very late style dash from 1976 onwards was mainly plastic with a small portion of metal showing which was more of a flat black finish than a crinkle finish.

As you ease into the driving seat of an early MGB Roadster, the first thing you are drawn to are the two large gauges placed directly in the driver's view which are the speedometer and tachometer. The other two gauges sat further left and right with the fuel gauge over to the far right of the dashboard and the dual gauge on the left keeping you up to date on the engine oil pressure and engine temperature.

The cars were fitted with Jaeger gauges at the beginning of production and in October 1964 were replaced with Smiths gauges.

CCHL interior with Mk1 Dashboard

The indicator stalk was a fragile-looking item that also operated the headlight flasher and the main beam function was located in the driver's foot well left of the clutch pedal. The switches on the dashboard included a light switch for the side and headlights, a wiper switch, a heater motor switch, and the overdrive switch with a rheostat that sat in the middle of the speedo and rev counter that enabled you to control the illumination of the instruments from dim to really dim. The ignition

switch was placed on the dash as well as the heater controls that could regulate the amount of heat as well as the direction that the two black plastic controls with the white instruction markings on them.

The choke cable along with the windscreen washers was set out neatly on the dash layout, as you go further across there was a glove box with a chrome strip along the front, and a key-operated lock on the farthest section, Nearest the door was a dome-shaped chrome map reading light with a switch above to operate, this would only work with the side or headlights switched on. There was nothing on the dashboard that wasn't needed and it did then and still does now seem to flow as most switches fall to hand.

The large 3-spoke steering wheel dominated much of the interior and also took up quite a lot of the leg room, as you slide yourself into the car the large steering wheel makes manoeuvring at slow speed a much easier task. The dashboard had a large rectangular aperture that was fitted with a 3-piece blanking plate that could be removed if a radio was to be fitted with the option of a single speaker going behind the console which sat on top of the tunnel.

Early Radio speaker console

The next generation of dashboards took nearly ten years after the initial MGB launch to come about and had the same basic shape and layout but the biggest change was the style of switches, the gauges all stayed in the same place, and heater controls but

the flick switches were now gone and replaced with a rectangular shaped rocker switch.

The ignition was also deleted from the dashboard and moved to the steering column which freed up room for an additional switch if needed, many had a blanking plate fitted but this gave the option to fit spotlights or any additional electrical items that needed a switch or in the case of the GT a heated rear screen.

The radio hole is now used for fresh air vents that allow cool air in when the car is moving which could be angled to a position to suit the driver and passenger or completely blanked off if not required. The radio would now be positioned in the revised centre console below the dashboard that incorporated an armrest and cubbyhole for small items to be hidden from sight.

MK2 rocker switch dashboard

The third dashboard fitted to the MG was a more radical revision, and the first thing you notice is that the speedo and tacho are now smaller and 80mm in size instead of the 100mm on the earlier cars. The switches remained rocker style, but not as many were needed as the wiper switch could now be found on a stalk with the indicator on the other side.

The dashboard itself was a wider design around the column to allow for the extra room needed. This dash appeared in September 1974 but was introduced earlier in 1973 for the V8 model from which the dashboard was borrowed. The centre console

and armrest remained the same and the console was still home to the radio and interior light along with a cigar lighter and hazard switch and also the heated rear screen switch for the GT model.

Photo of MK3 design dashboard

Stalks

The final makeover for the dashboard began in June 1976 for the 1977 model cars, this was a complete overhaul of the dash layout as not only was the crinkle finish of the metal dash gone but in came more plastic and a new style of switches throughout.

The Speedo and Rev. Counter remained 80mm in size but were changed and were without the chrome bezel we were used to seeing, now they were in a matt black finish, and the dual gauge had been dropped in favour of using a separate gauge for both, with the oil pressure in the original dual gauge position and the water temperature on the far right with the fuel gauge now positioned in the middle of the two main gauges and surrounded by the indicator lights and the ignition and high beam warming light.

The fresh air vents remained but the switches that operated the heater motor, hazard lights, and interior lights were a smaller design. The new style switches each had their own illumination when the lights were in use so were easier to find in the dark. The headlight switch was located on the steering column on the right-hand side close to the ignition switch.

Later style dashboard

The centre console was re-arranged as it now had the heater controls which again were illuminated along with a time clock, two small rectangular warning lights sat at the bottom of the console one a seat belt warning light and the other a brake light warning. The radio aperture finished off the new console that was smaller than the previous as the new dash layout came further down so in-between the main dash and console was a further plastic section for the choke, cigar lighter, and a round interior light.

Later-style centre console

The glove box was a locking style but it could now be opened by simply pushing the button so no need for a key each time you wanted to reach for your driving gloves and sunglasses.

Glove box on later cars

MGB Seats

The first seats used were all made of leather and no headrest option was available, these seats had limited movement as no tilt provision was fitted and the actual seat back foam was rather thin but surprisingly comfortable and the “H” style pattern which was piped into the seats defined the fluted areas nicely and was matched to the simple piping design on the door cards and trim panels.

Two rows of piping ran through the car on the trim kit and this was supplied in PVC to match the leather seats. When the MGB was initially introduced, 3 interior colours were offered; Black, Red, and Blue. Another unique feature of the early cars was the seats had a carpet section on the rear portion which ran through until 1968.

Photo of early-style seats

The initial design of seats was used from 1962 until 1968 and the next style used was only fitted for one year, it was a similar-looking seat that could recline but again had no headrest option and the fluting ran horizontally through the middle section as opposed to vertically on the earlier cars seats.

A silver handle was fitted for the recline function, and a black knob was used to operate the tilt, which would allow the seat to fold fully forward to give access to the rear, and it would also lock in place when pushed back upright. For this model year, you could have the seats in either black or mushroom colour, but this shade is very rare, and only a few cars were ever supplied in this shade. All seats today are supplied in black if you are keeping the car original to the year.

In the USA this seat was used but came with a headrest with a two-pole fitment and this again is relatively rare, I have seen a few cars with this and some have found their way to the UK.

The third style of seats came in vinyl, as the luxury of leather is now gone since British Leyland was involved. From 1970 - 1972 and 1970 only for the GT, the reclining seats had a basket weave design for the fluted centre section and an all-plain vinyl outer panel. The colour range was expanded and ochre, navy blue, and autumn leaves were added, it was at this point that headrests were available and these were a large 'D' shape that fitted into the seats with a single rectangular pole.

Photo of yet another option seats

Photo of MK2 style seat

Photo of D-type headrest

Smaller headrest

The MGB GT was trimmed with a different style to the Roadster and the 1971-1972 seat covers had the plain outer panels of the Roadster but the centre section was again fluted but with brushed nylon. There were small differences again for the 1973-1976 seat covers as the GT version had brushed nylon material but with double stitching on the outer and across the centre panels. In 1974 the colours navy blue and ochre were dropped from the line-up.

The Roadster seats for 1973-1976 had embossed panels in the centre but with heat welded stitching across these and the outer panels.

Photo of 1974 style seat

Slightly different design Seats

Yet another style of seat

The final seat design was what we all affectionately refer to as the deck chair style; these were fitted to both GT and Roadster models from 1976 through 1980 and were offered in silver and grey, or rather bold orange and brown. The actual design of the stripes is different on the two colour options, not simply different colours as the thickness of the stripes changed. The seats now come with the headrests as a standard fitment instead of an optional extra.

Photo of Deckchair seat.

MGB Seat Colour Chart

1962-1968	Black, Red, White, Blue Red black, white
1969	Black, Black Mushroom
1970	Black / Autumn leaf NA
1971	Black / Autumn leaf NA
1972	Black / Navy blue / Autumn leaf NA
1973	Black / Navy blue / Ochre NA
1974	76 Black / Ochre NA
1976	80 Silver, Grey / Brown, Orange NA
1976	78 LHD cars Black / Autumn leaf NA
1978	80 LHD cars Black / Beige NA

The colours used were popular at the time of production and this shows how trends have changed over the years and an insight into how fashion and colours influenced car makers, today not many manufacturers would be brave enough to offer orange-striped seats and many MGB owners are taking a more modern twist on colours

when considering trimming their beloved MG. With so many options now on offer the possibilities are considerably greater.

MGB interior CCHL versions x 3

MGB carpets

The factory carpet colours		
Year	**Colours**	**Model**
1962- 1967	Black, Red, Blue,	Roadster and GT
1969	Black, Brown,	Roadster and GT
1970	Black	Roadster and GT
1971	Black, Autumn leaf	Roadster and GT
1972	Navy, Autumn leaf	Roadster and GT
1973	Navy, Ochre	Roadster and GT
1974 - 1976	Black, Autumn leaf	Roadster and GT
1977 - 1980	Black	Roadster and GT

Carpet kits for the MGB were always in the same colour as the trim and the main change with the carpets was the changeover to a 4 synchro gearbox tunnel, the tunnel carpet was altered as the shape of the tunnel changed, and the foot well carpets were made slightly narrower as the tunnel width expanded but the rear section covering the battery tray and rear wheels arches all remained the same shape. The sill sections were covered in rubber not carpet until 1975 when they were full carpet throughout but you will find most carpet sets available now supply carpet only for these sections instead of the rubber. The GT carpet set had a different design for the rear wheel arches as they extend into the boot area along with a larger rear boot floor covering and two extra sections that fitted in the panels behind the rear lights.

MGB carpet set laid out

MGB carpets fitted to a car

MGB Interior Trim Kits

As detailed before the interior window winders, door openers, and locks all changed through the years and so the interior door cards were altered to fit the changing door furniture. The designs of the trim kit which includes the door panels and footwell panels along with the rear panels that extend over the wheel arch sections form part of the MGB trim kit. The main changes were all centred around the door panels as these seem to be the only items that changed significantly over the years.

Photo of Early style door card

The original door cards fitted in 1962 were a very basic design with one row of piping and a small cut-out for the door lock. They were attached to the door itself using screws with cup washers. The same style of door cards was used on all pull-handle models and revised in 1965 when the change to push-button doors happened and the GT was introduced.

The door panels for the GT were given an extra row of piping whereas the Roadster still had one row. Again the doors were redesigned and the internal door openers changed to the rectangular shaped version so the door panel had to be altered to suit now two rows of piping for both Roadster and GT used along with the fitting of the door panels now by hidden clips that attached to the door trim and pushed into pre-drilled holes in the door casing.

This style ran from 1968 - 1970 when an attempt to update the interior and the piping itself was removed and replaced with feature lines that were heat-formed and

the bottom section had vertical flutes and only black was available for this 1970 alteration.

Door card with larger internal door opener and fluting at the bottom

The year 1971 saw the use of a similar design to the 1970 car but with 2 plastic chrome look strips running the length of the door card but the vertical fluting remained and additional colours of Navy blue, Ochre, and Autumn leaf along with the standard black were offered for both GT and Roadster cars.

The final trim kit and door card revision was the 1976 - 1980 models with the fluting at the bottom removed and the plastic chrome strips deleted but now with a large circular shape where the window winder fits and markings for the bigger style door pull and rectangle detailing added, these were only available in black for the UK market however the North American cars had the option of Autumn leaf as well as a beige colour but the style remained the same.

Photo of the Final style of door card

Doors and Fittings

The door capping's were all fitted in black until 1970. The Mk1 door capping's had a unique style and were specific to this model as they had an added padded section that was very similar to the crash rail that sat above the dashboard and made the cockpit flow around. These were used from 1962 until 1965 and came in either of these, black/black piping, black/red piping, black/white piping, or black/blue piping depending on the trim and body colour.

The door capping's for 1965 became flatter and without the additional padded top section and the GT capping was nearly identical but with a slightly different shape on the back as it seated differently to the door and the door capping finishers which attaches the capping to the door itself is also a different shape. The final capping design from 1970 was similar to the previous one but was chunkier and had more padding and again the GT versions differed very slightly to the roadster.

Photo of early door capping

Photo of later door capping

The internal door furniture on the earlier cars consisted of black plastic door pulls in the centre of the doors which were fitted at an angle and a black handle on the top of the door near the front which acted as a door opener, the very early pull handle model also had the interior door lock at the rear of the door to operate the door locking mechanism from inside.

The door locks along with all the connecting rods are specific to the early model with pull handle exterior door openers and were applicable for all cars up to GHN3 57985. The door pull remained the same from 1962 until 1972 and at this date, a more plastic version was fitted which was shared with the MG Midget, which had two plastic caps covering the fastening screws. From 1974 the bigger armrest style interior door pull was adopted which was large and plastic covered and had two large screws discreetly hidden on the underside fastening it to the door.

This final style stayed with the MGB and was offered in the same colour as the interior trim until 1976 when it was rolled out as standard black as per most of the interior trim kits, some suggest that this style of door pull also doubles as an armrest with it being that much larger and padded and at a comfortable level to rest on whilst driving.

Door pulls x 3

The window winder handle sat below the door opener and operated the window winder mechanism which also changed three times during production, the first style window regulator was used on the pull handle model then altered slightly for the push button door but with the same interior winder handle design and fitment then finally onto the final change when the winder handle was fitted with a new flatter handle which stayed for the rest of production. The Roadster and GT regulators were

slightly different lengths to accommodate the different sizes of glass they operated as the GT door glass was taller.

Photo of window winder handles x 2

Window winder mechanism

Seat Belts

At first seat belts were not a legal requirement and most cars of the era were not fitted with life-saving safety equipment like they are today. They were offered as an optional extra by the dealers and not factory-fitted items, it is believed all cars had the mountings for the seat belts to be installed and the first style of seat belts was a basic static design with no retractable option they simply laid across your shoulder if not adjusted correctly they simply fell down the side of your arm and did restrict your movement so never really that popular with buyers.

They mounted on fixing points to the rear wheel arch and to a strong mounting section on the inner sill, the very early cars had two 5/16 studs protruding from the wheel arch for the seat belts to mount to. The third mounting was attached to a

strong captive nut built into the gearbox tunnel. It has been claimed that some early North American cars only had the option for lap belts as no mountings were fitted to the wheel arches.

The mounting on the wheel arch was altered to a more robust style with a captive nut used and fitted lower down on the wheel arch. The 3-point seat belts were offered in the same style up to the 1970 model when the rear mounting was moved on the 1971 model cars from the wheel arch to the rear deck area. This style found its way onto the North American cars a bit earlier and was fitted on the MK11 version.

This caused several issues, as it had to be removed each time the hood was put down and also if a tonneau cover was fitted it became a fiddly affair. It was down to the user to make sure it was clipped incorrectly and having detachable seat belts never really took off for obvious reasons. The style lasted for only a few years and finally, inertia reel seat belts became standard on all Roadster cars in 1977. The MGB GT however had the option of inertia reel belts much earlier instead of the static ones used and were supplied by Kangol.

Interior lights

The word interior light can be used but in reality, the lights fitted inside the MGB were more map reading lights, the first cars had them installed on the dashboard on the farthest left (on RHD cars) and just about illuminated something if you were attempting to read a map or something similar (no satellite navigation back then).

This was the only interior light on the MGB Roadster which had the earlier flick-switch dashboard so was used from 1962 - 1971. A boot light was fitted on the Roadster from 1970 that sat underneath the rear deck area inside the boot and was operated by a switch attached to the body and activated when the boot lid was opened.

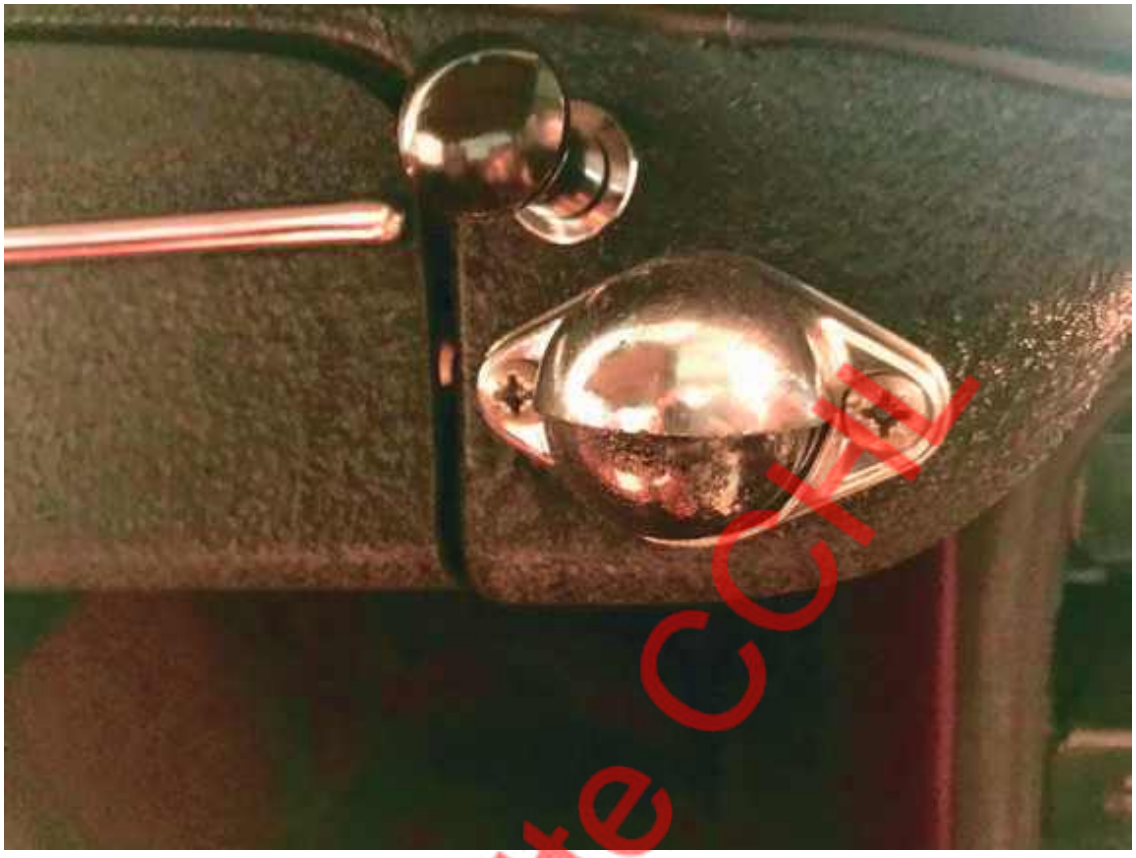


Photo of Early-style dashboard light

The layout of the rocker switch dashboard allowed for a bigger interior light on the centre console which was used from 1972 - 1976 and could be operated either by a switch in the top of the light or by a pin switch on the door shuts, so it was activated as a courtesy light when the doors opened.

The interior light on the North American cars was the same for the MK1 model with the flick-switch style dashboard but when the recessed padded dash was used the light moved to the centre console similar to the UK version.

Photo of Centre console light

The final dash light was on the 1976 onwards cars when the final dashboard appeared, this was a more plastic offering that suited the dash layout, but gone were the pretty chrome effect covers, and in came a round map-style lamp again.

The MGB GT did have an extra interior light fitted on the rear trim roof section from November 1967 from cars GHD4 139472 which helped shed some light on the interior and rear boot area.

Rear roof light

Chapter 9

Weather Equipment

Hoods, Tonneau Covers and Exterior Items.

The pack-away hood was the first style of hood, it was reasonably fiddly to remove and re-fit, however, and when taken off the car had beautiful, uncluttered flowing lines. No signs of a hood and frame as they were both stored in the boot area, taking up some luggage space instead. The pack away hood had a two-piece frame that connected to form the primary hood support, the header rail attached to the vinyl hood, and clamped to the windscreen frame.

The frame, when split, could be neatly placed into a storage bag and placed in the boot area, the hood then folded up and stowed away with it. The rear of the hood was fastened to the body by a retaining bar that was slotted through the hood below the screen; it slid under two teardrop-shaped retainers on the back panel. The hood was attached using lift-the-dot pegs with four on either side of the rear deck and a clasp on the front just behind the "B" post for the hood to clamp onto. It was an interesting design and remained with the MGB until 1970. During the same period, an upgrade was offered as a factory option instead of the pack-away frame.

It was a folding frame that was fixed to the same points on the windscreen with the mounting points behind the seats.

It now lived in the rear compartment, this grey-coloured frame folded onto itself into the back, you did have to watch your fingers while folding this hood.

Finally, in 1970 the black folding frame, designed by Michelotti took over. It had a much simpler process and was more comfortable to operate, many people often unclamped the front screen clasps and pulled the hood back without removing the rear bars and clips, this was simpler but caused creases in the rear screens and led to eventual cracking, users following the correct folding procedure would ensure the hood lasted without the need for premature replacement.

Photos of 2 types of hood frames

Hood mounting on the B post

Photo of the hood with glass rear screen laid on the car

The hood came in a material called Everflex leathercloth, initially available in blue, green, red, or grey, during summer 1963 black hoods were gradually introduced until December 1966 when coloured hoods were discontinued. From then on all hoods were supplied in black.

The only alteration to the hood was in 1976 when it was modified for a zip-out rear window that proved to be a popular option for the North American market. As with most convertibles, the hoods were never totally watertight, the later design did improve things, but there was always the potential for a few drips on your knee coming through should you get caught in some torrential rain.

A popular option was a tonneau cover; these came in two varieties; one was a full cover that went over the entire cockpit of the car when the hood was folded. The other is a smaller half-tonneau or hood cover as it is known, it merely covered the rear portion of the vehicle hiding the folded hood making it look a lot neater.

Full tonneau cover

The Full tonneau used the same fittings as the hood at the rear and the front attached to pegs located on the front scuttle panel above the dashboard. The full tonneau cover came with a zip halfway across to enable the driver to use the car without the

need for removing the cover and still have the passenger side protected from the elements.

Initially available in black, red, and blue but 1966 saw them all become black as standard. The full cover changed to suit the seats and which side the steering wheel was on, early cars were all non-headrest tonneau covers. With the headrests option, the full tonneau was fitted with two pouches to slide over the headrests with different tonneau covers for both D-type and smaller later headrests. They all came with a pocket for the steering wheel to sit in. The tonneau was offered as an optional extra until 1973 when it became part of the standard equipment on UK cars.

Another tonneau cover

The hood cover was first used in 1970 when the black folding hood frame was fitted and again utilized the same fixings as the hood at the rear.

Hood cover

A hardtop was an option from 1963; many cars were sold with the hardtop to make it a good all-year-round car. The hardtop was supplied in standard black from 1966; before that, it was provided in a whole host of different shades including red, old English white, blue, grey, and black. The design hardly changed and was made from fibreglass with a glass rear window and two Perspex rear quarter lights fitted in aluminium frames with the same trim around the doorframes.

It was attached to the car using the same fixings on the windscreen surround and with two mountings rear of the seats in the same position, the hood frame is mounted with a long bolt through a locating bracket, which allowed you to clamp it down securely. They were never the most natural things to fit and line up and not a job you would do regularly, but it made the transition from an open-top sports car to being used in all weathers.

Hardtop fitted to car

Today, there are other variations instead of the factory hardtop and with different finishes from more rounded styles to the Bermuda hardtop which has gained quite a following over the years with its very light and airy feel.

Different hardtop

The MGB GT was not offered with a sliding sunroof from the factory. Still, it is believed that many dealers offered the fitment of these, which gave a substantial open feel to the GT model, often referred to as a Webasto roof as this was one of the leading manufacturers of this type of sunroof along with Britax and Weathershield that were both popular brands. The full-length fabric roof was fitted into an aluminium frame, which the vinyl section of the roof could run along and slide back.

At the front, a large handle pivoted to lock itself in place with a wind deflector which lifted up to help prevent too much buffering and wind noise. It gave another option for buyers who maybe didn't want a full open-top sports car and liked the space the GT model offered but with some added fresh air.

Webasto roof fitted to the car

Quarter Light Units

The quarter light units on the first pull handle MGB Roadster were unique to that model; they operated in the same way. Still, due to the design of the doors, they were attached to the door frame by two bolts underneath the quarter light much the same as the later cars. However, they did not have the two forward bolts as there was no front leg of the quarter light, only extra fittings on a securing plate which sat on the inside of the door, attached to the inner skin to stabilize it.

The quarter lights changed on the Roadster in 1965 when the doors changed over to the later style quarter lights with a front leg for extra strength and stability. The quarter light handle that was used to open the glass section was curved, to begin with on both GT and Roadster cars. In 1969 the handle to open the quarter light window became a straight and flatter style that remained until production ceased. The material used initially for all the quarter lights was chrome-plated brass, in 1973 it was upgraded to Stainless steel.

Early-style quarter light unit showing no extra leg support

MGB quarter light unit showing support leg

Quarter light fitted to the car

Minor changes occurred to the windscreen frame, but the whole shape and size remained the same. The central support rod was fitted in chrome until 1968 then a satin finish was used. The rear-view mirror clamped to the centre rod up to 1969; these mirrors were recognisable with a gold backing finish until more plastic versions were used.

From 1969 onwards they were fitted to a mounting plate above the rod that made them somewhat more stable and less prone to wobble and vibrate like the earlier type. Sun visors were not fitted originally; so all early windscreen frames have no mountings for these and were not fitted as standard until June 1976 when they were rolled out on all Roadster models. The MGB GT had sun visors fitted from the beginning starting in 1965.

Sun visor on a GT

The glass used for the Roadster windscreen was clear laminated glass all the way through till 1972 when they introduced small cutaways in the corners of the glass. The GT windscreen glass retained the same shape throughout as the body shape around this section never changed, but the tinted glass was offered as an option, this was made standard on the MGB GT V8. The door glass and rear quarter glass were also tinted for the GT V8 model, not just the front screen. It was a subtle green tint, which just gave the look of the car an added edge over the standard model and was, of course, useful on a warm, bright day.

Front windscreens of the Roadster

Front windscreens of the GT

The rear screen on the MGB GT started as a plain piece of glass until a rear heated element was used which was an option from 1966 but became standard on all home market GT models from 1972.

GT rear screen

MGB Boot Area

The MGB Roadster had a very usable-sized boot area (or trunk if you live in North America). Inside this space, a spare wheel was installed along with a tool kit. The spare wheel sat slightly offset to the left and was clamped down to the boot floor by a long bolt with a retaining clamp at the top to stop the spare wheel from moving or bouncing around in the boot.

The wheel clamps altered depending on the wheel it was clamping; the method remained the same, but often the length of the clamp and the size of the retaining section changed to suit the wheel in question.

Spare wheel and tool kit in Roadster boot area

To enable the driver to change a wheel, the car came with its own vehicle jack and tools to remove the wheel and replace it with the spare if needed. The jack supplied slotted inside the jacking point on the side of the vehicle; it was positioned halfway along to be able to lift the full side of the car.

It was painted red and had a handle that you would wind to operate the mechanism. This was updated in May 1973 to a similar design, but even more durable, they were supplied by King Dick Jacks until 1974 when the Metallifacture jack was provided, it was painted black but worked the same way.

Jacking point

Boot area in a Roadster with wire wheel

As well as the jack, the kit also consisted of a copper-headed hammer to use for cars fitted with wire wheels, you would simply hit the eared spinner until it started to loosen and spin unless your vehicle was equipped with the octagonal nuts which required a wheel spanner designed to slot over the large nut which you hit instead to loosen it.

Some cars were fitted with this style for safety as the eared spinner did protrude past the bodywork and all export cars had this type of octagonal nut installed. Steel wheel cars were supplied with a simple wheel spanner to remove the wheel nuts and vehicles equipped with the disc wheels and hub caps also had a lever to aid the

removal of the cap to avoid damaging it. The wheel spanner did change depending on the wheels fitted to the car.

All these items were packed away in a PVC bag that was felt coated with a flap at the top and could be secured safely into the boot area; later cars ended up with a fundamental PVC bag to house the tools.

Jack, wheel brace, and bag

A spare wire wheel in carpeted boot

Carpeted boot area with matching spare wheel cover

The boot area was simply finished in body colour with no carpet fitted although many people today have started to carpet the boot area that enhances the look and also helps to deaden the sound.

The GT tool kit was identical, but the spare wheel was located under a wooden board that hinged behind the rear seat and lifted up exposing the spare wheel and tool kit, but the board levelled everything out in the rear luggage area. It was fastened at the rear with two Dzus fasteners that had a circular-shaped handle you could lift and twist to lift the board. This board changed in 1973 as it went from a two-piece to a single board that hinged with a round cut-out for extra clearance for the spare wheel clamp.

This board was painted black and covered in carpet to match the rest of the trim. The GT also had two small areas behind the rear lights where small items could be stored, again these were carpeted sections.

GT rear wooden board in place and lifted to show contents

Example of a Dzus fastener

Optional Extras and Accessories.

Some additional items over and above the standard car were available from the point of order so became factory-fitted options. At the same time, other things were an option direct from the supplying dealer.

These are the items that you could specify and be classed as factory-fit options.

Wire wheels, standard painted 60 spoke wheel; the chrome-plated version was available until June 1971.

Rostyle wheels chrome plated were offered in the early '70s, this option was from 1970-76.

Whitewall tyres were a fashionable addition, especially for the American market that was offered throughout the production; the UK dropped them from the options list in October 1969.

Tonneau covers were a standard offering from 1972 for the UK market but varied on export models. They were offered as a factory-fit item before 1972.

Wing mirrors are quoted as a factory-fit option up until 1965 when this became a dealer-fit option. The wing mirrors were quite ineffective in use, although they looked nice, the rear visibility was limited. Hence, door mirrors replaced these and were standard on all home market cars from the period 1974 until 1977 when they reverted to a single door mirror on the driver's side from 1977 - 1980.

Oil coolers were standard fitment on all export cars but optional on the UK version until 1964.

The automatic gearbox option was offered from 1968 to 1973, but because of the lack of demand, this was dropped.

The brake servo unit was optional on the UK-supplied cars from 1970, but the V8 had this as standard and was rolled out in 1973 on all vehicles as standard fitment.

Heaters were not a standard fit on home market cars, although you will likely find one on nearly every MGB, it was offered as an extra but most people living in the UK would almost certainly take up the opportunity to have some form of heating in their car. It officially became standard in October 1968 but was fitted on all export models unless they were being shipped to a particularly hot climate; finally, they were standardised on all export cars from 1975.

Overdrive was only standard from the 1976 model but offered as an optional extra from January 1963, it was fitted on the GT V8 but not rolled out on the North American cars where it remained optional from the factory.

Hardtops were available from the factory at the start of 1963 and were still available up to 1976; after this, dealers were able to supply if needed.

Map pockets could be fitted to the left side of the passenger's foot well and were standard on the GT model and covered in carpet to match the colour of the interior trim. They were offered on the home market Roadsters until 1971, but the North American market had them fitted as standard from 1967.

A grey folding hood was a factory option instead of the pack-away style until 1970 when the black folding frame took over.

A luggage rack was offered from the factory until 1965 when it became a dealer-fit accessory.

The rear seat cushion option was given to have the rear compartment fitted with a seat cushion on the MGB Roadster the same as the GT had fitted, this would be trimmed in the same style as the front seats but discontinued in 1969.

Car radios were available to specify from the factory before they became a dealer option.

Fog lamps or driving lamps could be factory-fitted for UK cars up until 1963 and 1965 for export cars before being destined to be a dealer-fit option after that.

A cigar lighter was an option until made standard in 1972 on the GT model and then in 1973 standard on all Roadster models apart from the North American cars which saw this become standard on the 1968 model cars. An ashtray could be installed on the transmission tunnel just between the gear lever and the speaker console; it was made standard on home market cars from December 1969 and earlier in 1968 for all vehicles designated for export.

Metallic paint was offered only on the GT and in either Riviera silver blue or metallic golden beige with neither colour proving very popular with the majority of buyers.

Dealer fitted items

Over time it became much easier for the factory to build cars to a less complicated specification leaving the dealers to fit more and more accessories, this also gave the dealer an option to generate more business and up-sell when the car was sat in the showroom.

A list of the most requested options is detailed below and many we will have seen fitted to MG's over the years.

A badge bar was offered for any additional badges to be added to the front of the car.

A Locking petrol cap. As the prices of fuel crept up, the value grew, and an increase in theft began.

A chrome luggage rack was already mentioned, and this was a popular choice to carry that picnic basket on, the North American cars were fitted with a different style than the UK that had four mounting brackets at each corner and did look rather neat.

Rubber floor mats were available in a choice of colours, black, red, grey, green, and blue; today most rubber floor mats are supplied in black.

Touch-up paint is always popular to ensure the correct colour is used in the event of stone chips. Mud flaps were a popular dealer extra as when these cars were initially sold, they were everyday cars; they needed this extra protection.

Wheel trim rings that fitted around the outer edge of Rostyle wheels, looked nice but fitted very snugly, so removal of them often caused damage and scratching of the painted wheels.

The dealers offered many other items; they ranged from license holders to different styles of exterior mirrors and driving lamps. The North American cars had an even bigger list on offer, as the market for accessories was influential in the US, they were offered striping kits to wood rim steering wheels as well as additional racing equipment.

Overall the standard cars were good value, but any car manufacturer and most dealerships offer the extras and accessories list to help you personalise your new vehicle. MG and British Leyland were no different and made the picking of additions an easy task for potential buyers.

Chapter 10

MGB GT V8

CCHL Traditional MGB GT V8

The MGB GT V8 is often thought of as the right car but at the wrong time. It was for many the obvious choice to fit the 3500cc V8 engine straight into the MGB as it made the car much more fun and with the epic soundtrack that howled away through the gears. It was a great pairing but the uprated V8 option was introduced too late into the line-up.

The V8 conversion was already completed and done by independent companies and the Costello was developed well before BL had seriously considered doing the job. Ken Costello was way ahead of the game and saw the potential well before British Leyland realized there was a demand in the market. When British Leyland did eventually catch on to the idea and produce the V8, it was only offered as a GT version as they considered it to be much stronger and a more rigid body shell than the Roadster car which in some respects is true but the actual increase in power the factory car offered. It could have been used in the Roadster too. With an increase in power the brakes, back axle, and suspension were improved to cope with the BHP boost.

The MGB GT V8 was a worthy addition to the MGB range although the reality was it did feel like the V8 was put together in a vain attempt to see off its rivals and keep up with the competition instead of being ground-breaking and moving forward. It was merely following the crowd and filling a small gap in the market.

MGB V8

CCHL upgraded MGB V8 engine

CCHL MGB Roadster V8 conversion

The MGB GT V8 was launched at the start of the fuel crisis and just over 2500 MGB GT V8s rolled out of Abingdon before production ceased. The fact that so few were built is now pushing the prices up today as these cars become scarcer.

When driving a GT V8 you will be impressed by the performance and the fun this car can deliver as it was actually a very well-mannered car but it was somewhat underwhelmed by the lack of improvements made elsewhere as the cabin was exactly the same as the 4 cylinder variation apart from a few minor additions thrown in as standard like head restraints and tinted glass. It was a car that if produced ten years earlier would have sold in much larger numbers and been a success but many believe that the MGC put BL off doing anything too radical as it failed to impress with its heavy engine and compromised handling. It was more a cruiser than a sports car so the earlier attempts at adding power and making the car sportier did not live up to the hype which in turn held back many future projects.

The V8, though even by today's standards was not sluggish with a 0-60mph in 8.6 seconds and 125mph ability, it was up there with the E-type Jaguar and Big Healey's but with a much lower price tag.

The weight saved at the front also means that the V8 retains the standard B's natural balance, although the combination of the additional power and slightly wider tyres means that it doesn't feel quite as sharp as a standard MGB. It is however very agile

for something with this much power, although things do start to get somewhat interesting if you race into the bends too much.

When the BGT V8 was launched, it cost £2293 which was much less than some of its more prestigious rivals but this was seen as a hefty price tag for an MG in comparison to the more mass-produced cars of its day, it was £746 more than its four-cylinder car and a £642 more than a 3.0 litre Ford Capri which was at the time aiming to be its closest rival.

Sales were steady but it never really ignited the world and after only a few short years the end was in sight for the GT V8, BL was keen for its Triumph TR7 and upmarket Stag to be at the forefront of the GT assault and the MG did not seem to have a chance with these cars on the market. The Triumph Stag offered the V8 power and BL was all set to give the TR7 a Rover V8 engine too which resulted in the TR8, there wasn't room in the line-up for this much rivalry and the MGB GT V8 production was halted in 1976.

The MGB GT V8 did have several specification changes throughout its limited run but many of these were very minimal and followed the changes made to the 4-cylinder version; the engine remained unchanged along with the gearbox, and back axle performance was not affected. The dashboard layout again was unchanged and the main alterations happened on the chrome bumper to rubber bumper change-over which included the raised ride height and different bumpers and body alterations to suit.

CCHL MGB GT V8

According to the original sales brochures, the MGB GT V8 boasted the following equipment as standard.

- 137BHP at 5000 rpm
- Laycock overdrive
- Brake servo unit
- Alloy wheels
- Twin electric cooling fans
- Tinted glass
- Twin exterior mirrors
- Hazard warning lights
- Head restraints

It does not seem like a long list by today's standards but these were usually optional extras on a regular 1.8 MGB.

Since the early days of the V8 transplant, many conversions and upgrades have become available and a vast array of improved brakes and suspension options can now be fitted with even larger V8 engines used in the MGB today making it stop and go around corners makes extremely good sense.

MGB GT V8 Suspension

The factory-fitted front suspension was nearly identical to the smaller engine MGB apart from using a modified front cross member that was rolled out on all rubber models making the car ride 0.5in, higher. A front anti-roll bar was fitted to help tighten things up and this was all that was deemed necessary for the front suspension.

The rear suspension was an area that would have really benefitted from an upgrade but BL didn't have suitable independent rear suspension it could modify to fit so the tired and aged set-up remained, admittedly with beefed-up springs to prevent the torque wrapping up the rear springs when owners pulled away to enthusiastically from standstill but the back end can feel rather lively when the V8 GT is pushed. The use of a rear anti-roll bar did help the stability at the rear and was a great improvement.

Rear Anti-roll bar

MGB GT V8 Steering

The steering column on the GT V8 had a new design and the actual steering cowl was much wider to accommodate the indicator stalk and also the wiper stalk on the other side with a combined screen washer function on the end of the stalk itself. The steering cowl also housed the ignition lock on the right-hand side. This style of steering column and switches was rolled out on all MGBs from 1974 along with the redesigned dashboard but this style of dashboard remained on the GT V8 from start to finish.

The steering column was shorter to match the change in the steering rack now used, which was fitted to the altered cross member. The column was now held in place by 3 large bolts that fastened under the bulkhead to a bracket housing captive nuts giving much more strength.

V8 dashboard

The steering rack was a similar design to the MGB but made specifically for the GT V8 so it would match the column and front cross member and was used on all GT V8 cars, this rack was eventually rolled out on all MGBs.

Steering Rack V8

A solid spoke steering wheel was fitted on all MGB GT V8 production cars with the horn operation found in the wheel centre.

MGB GT V8 Interior Trim

Very little changed in the interior with headrests becoming a standard fit along with inertia reel seat belts on the GT V8 models but were still extra on the standard MGB. The trim colours varied and a few cars early cars from 1973 were fitted with the Ochre trim and Navy trim colour and then 1974 - 1976 they were either black or in autumn leaf.

Body Colours For The GT V8

Many colour options were available for the body and a full list can be found below of the colour used and the number of cars painted in that shade.

Body colours for the GT V8			
Name	**Colour Code**	**Number Built**	**Years Produced**
Glacier white	BLVC59	513 1973	1976
Damask Red	BLVC99	472 1973	1976
Citron	BLVC73	267 1973	1974
Teal Blue	BLVC18	244 1973	1974
Harvest Gold	BLVC19	183 1973	1974
Bracken	BLVC93	154 1973	1976
Flamenco Red	BLVC133	147 1975	1976
Blaze	BLVC16	147 1973	1974
Aconite	BLVC95	98 1974	1975
Tundra	BLVC94	92 1974	1976
Tahiti Blue	BLVC65	90 1975	1976
Black	BK1	79 1974	1976
Bronze Yellow	BLVC15	26 1973	1973
Chartreuse	BLVC167	19 1975	1976
Brooklands Green	BLVC169	17 1974	1976
Mirage	BLVC11	17 1974	only
Green Mallard	BLVC22	15 1973	1974
Sandglow	BLVC63	8 1975	1976
Black Tulip	BLVC25	5 1973	only
Police White	BLVC1024	2 1973	1974
Lime flower	BLVC20	2 1973	only
Flame Red	BLVC61	1 1973	only
Ermine White	BLVC243	1 1975	1976
BRG	BLVC25	1 1975	only

(Note the number of cars produced above includes pre-production models so actual numbers sold do not correspond to the above)

MGB GT V8 Brakes

It is always a good decision to improve the brakes on any car that is tuned to go faster than originally designed and thankfully the brakes were improved on the GT V8. The front brake system was fitted with larger brake calipers which helped bring the car to a stop along with uprated brake discs this was a standard fit throughout with no alterations throughout the production. A remote brake servo unit became standard on the V8 model to help with the pedal feel and this was soon rolled out on all MGB whether an 1800cc or 3500cc version.

MGB servo unit on V8

MGB GT V8 Rear Axle

To help keep the fuel consumption to a reasonable level the V8 was fitted with the MGC's 3.07:1 differential, this aided long-distance cruising, and all V8 cars fitted with the overdrive gearbox made covering longer distances more pleasurable. No changes were made to the rear axle although the material used was of a heavier grade for the V8 cars over the standard MGB prop shaft.

The V8 Engine

The V8 engine itself is much lighter than the 4-cylinder engine and is stated to be 40lb lighter than the 1800cc option with the block made from aluminium and the cylinder heads made from die-cast aluminium with iron valve guides and valve seats. The actual design of the engine was fairly standard with a five main bearing crankshaft and a central mounted camshaft driven by a chain. Hydraulic tappets were fitted and conventional pushrods and rockers worked the overhead valves and these were set in line in the cylinder heads with exhaust ports found on the outside of the 'V' and the inlet ports on the inside.

V8 engine block

The factory V8 cars had an 88.9mm bore with a 71.1mm stroke with an engine capacity of 3528cc. Modifications had to be made to enable the engine to fit in the MGB engine bay to avoid any bonnet bulges or alterations and the inlet manifold was made so the carburettors could be fitted at the rear of the engine very close to the heater box, this gave enough clearance for the bonnet to close. The exhaust manifolds were manufactured to fit closely to the block to allow them to mate to the downpipes and then run under the car but this method did generate a lot of heat inside the engine compartment but worked adequately.

Not much really changed in the engine compartment through the MGB GT V8 production, many parts were lifted from the standard MGB like the pedal box and heater system but the V8 engine used a remote oil filter which was situated on the radiator support panel on the left-hand side with the pipes running off that went to the oil cooler that fitted on the front panel and was moved on the rubber bumper cars to below the front panel with the pipework altered to accommodate the change of position.

MGB V8 engine awaiting clutch but almost ready to install

Fuel System

The V8 engine used a pair of HIF6 SU carburettors that were fitted to the rear of the engine compartment and a very similar design to the 1.8 MGB carburettors but with a choke diameter of 1 1/3 in. An air box was designed to fit across both the carburettors but this was very shallow, as it had to fit in front of the heater box and the air filters protruding forward over the rocker cover. The filters are teardrop-shaped, installed with a paper element, and finished in silver with the Unipart label attached to each filter.

Original type V8 air filters

The SU electric fuel pump was a standard item found on all MGB, MGB V8, and MGC cars.

Like many components for the V8 derivative, there was only one choice, and the same exhaust system was fitted to all models with the exhaust manifolds on either side of the engine connecting to downpipes which then joined behind the engine making one pipe with two silencers, the rear tailpipe was altered on the rubber bumper version but that was the only item worthy of mention.

V8 Exhaust system

MGB GT V8 Cooling System

Things did progress with the cooling system and improvements were made to help keep things cool with the big engine, the radiator was moved further forward towards the front of the car. This allowed for extra room in the engine bay for the engine to fit along with a pair of twin cooling fans to be slotted between the radiator and the front panel.

The fans were thermostatically controlled and set to kick in at 90*C. The design of the front grille also helped by allowing airflow to pass through more easily again helping to keep the temperature down.

The cooling system was semi-sealed and came with a separate expansion tank that fitted on the left inner wing. This same system was rolled out on all MGBs from 1977 as the engine bay alterations remained for the V8 fitment but also allowed for the 1800c engine to slot in.

CCHL V8 cooling system

A Lucas 35D8 distributor

MGB GT V8 Ignition System

A Lucas 35D8 distributor was installed on the GT V8 along with a Lucas ballast coil, which was mounted on the radiator surround. The firing order was 1-8-4-3-6-5-7-2 with all odd numbers on the left-hand cylinders and even numbers on the right-hand side cylinders.

MGB GT V8 Gearbox

The gearbox on the V8 car was modified as the casing was altered to allow a bigger 9 1/2 inch clutch and the clutch master cylinder was also bigger than fitted to the four-cylinder model and a different speedometer drive was used on the V8 gearbox but no other major changes were noted throughout the production.

MGB GT V8 Gearbox ratios

	Gear Ratio	Overall ratio
First gear	3.138:1	9.637:1
Second gear	1.974:1	6.062:1
Third gear	1.259:1	3.866:1
Fourth gear	1.00:1	3.071:1
Overdrive	0.82:1	2.518:1

MGB GT V8 overdrive gearbox

MGB GT V8 Badging

The badges on the V8 were strategically placed with a V8 badge fitted to the left side of the tailgate opposite the MGB logo, another placed on the front grille, and finally, one fitted to the near side (passenger side on RHD cars) front wing just next to the BL badge but not on the opposite side wing. These were fairly discreet badges and just showed enough that anyone taking an interest in the car would be aware it was not your average MGB GT.

V8 badge

MGB GT V8 production numbers

Date	Number	Notes
December 1972	101	Pre-production, three cars built in 1972
January 1973	103	First pre-production car built during 1973
April 1973	124	Start of total production
August 1973	604	Start of 1974 model
January 1974	1173	First car built 1974
September 1974	1956	Last 1974 model chrome bumper car
September 1974	2101	First 1975 rubber bumper car
January 1975	2167	First car built in 1975
August 1975	2632	Last 1975 model
October 1975	2701	First 1976 model
January 1976	2721	First car built in 1976
June 1976	2901	End of series production
July 1976	2903	End of production

The total number of cars produced was 2591 with 1856 chrome bumpers and the remainder 735 rubber bumpers.

MGB GT V8 Wheels

The wheels on the GT V8 were special to this model and supplied by Dunlop and the middle section a cast alloy wheel but with the outer rim chrome plated steel and were the same four stud pattern as the rest of the MGB range but the wheel nuts are larger in size and special to this style of wheel.

The rim size was 5Jx14 and all had a Centre cap with the MG logo to finish them off, this particular style of wheel was also used on the Jubilee model in 1975 but painted black and gold with a gold MG badge. 175HR-14 radial ply tyres were used for the V8 cars. This was the only style of wheel offered on the MGB GT V8 cars that was one of the more distinctive signs that the V8 was a little bit different from the standard car.

MGB V8 side view with V8 wheels fitted

MGB GT V8 specification details at a glance	
Production years	1973-1976
Body type	GT version only from factory
Engine	3528cc V8
Bore	88.9mm
Stroke	71.1mm
Compression ratio	8.25:1
Engine block	Aluminium block
Fuel	Twin SU Carbs
Fuel tank	12 gallons
Max power	137bhp @ 5000rpm
Maximum torque	193lb ft @ 2900rpm
Power-to-weight ratio	128.4 bhp/ton
Maximum speed	125mph
0-60mph	8.5 seconds
Fuel consumption	22mpg
Gearbox	4-speed manual with overdrive
Brakes	discs front and drums rear
Steering	rack and pinion
Wheels	Composite: alloy centres/steel rims 5J x 14
Tyres	175HR 14 radial tyres
Unladen weight	2390Ib

Chapter 11

MG Lives On

During the early nineties, MG made a comeback with the launch of another two-seater drop-top The MGR V8, it was built in limited numbers and was fitted with a 3.9 V8 engine.

In 1992 the MG RV8 was unveiled, and deliveries began in 1993, however of the 2000 cars built, the vast majority were destined for Japan, they had 1582 vehicles in total, although many found their way back to the UK over the years.

The cars sent to Japan all had air conditioning installed; sadly, the UK cars were never offered this as an option. You could still recognise the MGB shape through the wider wheel arches, and moulded bumpers, the proportions were the same. Yet, the car was made to look more muscular with a more aggressive stance, and a large bonnet bulge; these changes were letting you know, this was no ordinary MG.

The MGR V8 was a very different car to the original MGB; this was a bold attempt to bring it up to more modern-day technology and higher standards, it was fitted with a fuel-injected five-speed gearbox, and they also upgraded the brakes and suspension.

Unfortunately, the steering was still very MGB; it was a heavy car to steer at slow speeds due to the wider tyres and lack of power steering. Nonetheless, it was an enjoyable car with a useful 190bhp, it filled a small void, but the price tag of £26,000 was too steep at the time when compared to its rivals, which had a higher specification and more prestigious badges.

RV8 Brochure

RV8 Images

The interior was suitably updated and offered a luxurious feel, which suited the car nicely; although it was all based on the MGB body shell dimensions the interior did feel special even though you still had to wind your windows up manually.

MGR V8 interior image

Today the prices of the MGR V8 have remained relatively consistent over the years and are slowly edging up, as they become more of a collector's item as the number of cars remaining slowly declines.

The MGB Still Going Strong

The MGB's popularity shows no signs of dwindling and is still used as the basis for many enthusiasts to upgrade and improve upon; there is a buoyant industry that lives on, improving, restoring and keeping the icon alive today.

The beauty of this machine is that they can be used as a daily driver, with the standard 1800cc or fitted with uprated engines and even a supercharger for increased fun going all the way to V8 territory which really does make them more exciting to drive, they can also be scary if the brakes and suspension aren't improved to cope with the vast power increases that people build into them.

This was so different from when the MGR V8 was initially designed and constructed, after all, if you add a substantial power increase to the car, everything else around it needs upgrading to cope with and maintain a degree of safety.

There is now so much on offer to keep the MGB up to date with a host of brake upgrades and suspension improvements. These all make driving more comfortable or sharpen up the handling for high-speed cornering and stopping.

The MGB is open to all manner of enhancements that goes to show the following the car still has today. So many years after its initial launch, a new generation of buyers want their own piece of British sports car fun, this time with a dash of modern reliability and comfort.

Just 2 of the many CCHL MGB V8 engines

I have been lucky enough to drive many updated MGBs, some with power steering others with heated seats and electric windows and some with far too much power for the MGB to handle; nearly all of them were fun to drive. Some might believe that they are not true to MGB anymore or are too far removed from the original specification. However, the other argument would suggest that they have been used by a new audience who still love the look and the sheer elegance of the MGB but want to use them regularly by a modern daily driver and expect the same from a classic car. Either way, you look at it, they are being kept alive on the roads for us all to have pleasure from. Add the fact that the popularity of the car is still so strong is why so many companies are manufacturing more and more new parts for them. This,

alongside the continuous development of new products and various other ways that keep the standard cars working alongside the re-engineered and modernised MGBs.

Supercharged CCHL MGB 1800

The MGB can be completely rebuilt using almost all new parts with only a few items not re-manufactured; these can still be repaired and overhauled. From wide arch conversions to the more minimalist reworking of the body, so much can be achieved with the overall look of the car to suit most people's tastes. The original design of the car was stunning with correct proportions and an elegant silhouette; not much fettling needs to be done to change the appearance of the MGB. That doesn't stop it from appearing with some differing results, from very pretty to other somewhat over-the-top body kits.

CCHL Sebring conversion to race spec.

The MGC paved the way showing that power increases, and improving the suspension and braking system were possible; this led to the V8 engine. There is something for having a much-loved classic car that looks very unassuming and mild-mannered but with a thumping great engine hidden under the bonnet.

It doesn't need to shout about it or have big bonnet scoops and badging all over, but this is a proper wolf in sheep's clothing. As we now know the V8 slotted into the showroom line-up briefly and this particular engine finds its way into the MGB frequently and for a good reason. It is an efficient and useful option that is as happy trundling about town as being thrown around a country road when the opportunity arises.

The 3,500cc V8 engine is genuinely great; it suits the MGB characteristics very well, it can be increased to 4,000cc, and even 4,600cc it does make the car a handful and a real white-knuckle ride. I have driven most V8 options for the MGB, and all are great fun but it's not necessarily the power that seduces you but the superb sound which is something modern electric cars don't offer.

Electric versions of the MGB have been built with some positive reviews; however, the sound and the smell of a classic car is what it's all about in my opinion. More technology is something we all need to embrace to a certain degree; personally, I believe that is best left to modern cars and keep the classic machines just that classic.

CCHL MGB V8 engine in the car

A small selection of CCHL V8 MGBs

Another worthwhile but possibly divisive option available today is the five-speed gearbox, the purist will always hanker after a four-speed with overdrive, I must admit there is something about using an overdrive that does the job great. The appeal of five-speed conversions is nothing new and has been around for decades, today we have more options available and to be able to have that classic car with a new, modern, smooth, and slick gearbox installed does have many advantages.

CCHL 5 Speed gearbox for MGB

CCHL 5 Speed gearbox in an MGB

Upgrading The MGB Suspension

This is an area that does benefit from a modern twist; the original lever arm shock absorbers were very effective and comfortable for the era they were produced. For many years the suspension has been an area where a lot of development has occurred. A wide choice of suspension upgrades are available, most using gas-filled shock absorbers and an improved design for the mountings and wishbone arms. Some of these kits are also adjustable to allow the owner to alter the settings to suit the style of driving. A well-set-up MGB front suspension with modern polyurethane bushes does improve the feel of the car, After all when the engine is producing a lot more BHP than a standard vehicle; these improvements make it go around corners more sure-footed which is always a good idea.

The rear suspension also benefits significantly from changing the rear shock absorbers to the gas-filled items, and again fitting polyurethane suspension bushes makes a noticeable difference to the feel and handling of the car.

Other enhancements available include Parabolic rear springs which are designed to improve the ride comfort and enhanced handling, but these are only advised on standard or very mildly tuned engines. Fitting a rear Panhard rod is an excellent option to restrict movement in the back axle; it helps reduce any lateral movement during heavy cornering and does the job well.

Panhard Rod fitted to a CCHL MGB

The most up-to-date version available for the rear suspension which aims to bring the MG close to today's standards for handling is the five-link conversion which eliminates the leaf springs altogether, it uses a much more modern setup which really does sharpen up the handling.

CCHL 5 link rear suspension

Air Conditioning

Another option becoming more popular these days is air conditioning. We are all used to having this in our modern cars and somewhat take it for granted, people are now looking at how to make the MGB more appealing to use on a hot summer day.

The GT is the right candidate for this although even Roadster buyers have had this fitted for when the heat from above is too much, the roof goes on, and the air-conditioning is turned on. Again it is another idea that would seem ludicrous when the cars were initially built but, the modern world we are living in is starting to demand more.

Many vehicles in the US have had retro air-conditioning kits installed for some time; different manufacturers offer many options on the theme, the nicest is usually the most hidden type that doesn't take up too much space and looks like they are meant to be there initially.

Air conditioner Units under Bonnet

Air conditioner unit under the dashboard

The heating system of the MGB was somewhat underwhelming, it did manage to create some heat for the driver and passenger but uprating the heating system is worth considering. An option now available is a new heater box; it is slightly deeper than the original with a very similar style and finish. This one, however, has a 3kw output that is three times that of the standard unit, it is a noticeable difference to clear the windscreen and warm the car up on a cool or frosty morning.

Uprated heater

Uprated Heater in the Car

While still looking at heating, one other feature that is now available is heated seats, (heated seats in a classic MG I hear you cry) yes they can be fitted into the base and back of the MGB seats and offer that touch of luxury and comfort some people crave for in their classic cars.

Heated seat switch

The interior of the MGB will always be a very calming place to be; the original car is simple and yet elegant. Still, there is an opportunity to completely overhaul the full cockpit with a whole host of different materials that can look beautiful if done correctly. This will never change.

The use of veneered dashboards and door capping's along with matching veneered centre consoles and even carbon fibre options for a more modern look if you so prefer are available.

More straightforward alterations include updating the steering wheel to leather or wooden and replacing the instruments which does transform the look of the dashboard, and using cream dials to add a sportier, modern feel to things. Cream gauges are now an option available giving a different look to the standard dashboard.

Interior of an MGB in black but with the addition of white gauges and a leather steering wheel.

Lots of different styles of seats have been fitted to the MGB; even the modern MGF seats can be adapted to install. Still, classic shape seats always seem to look right in my humble opinion, but we are all different, and that is what makes it all so interesting. Even changing the seat foams on the original seats keeps the look and the shape close to the original but does make them more comfortable with added support.

Just 4 different styles and colours of seats

The aftermarket accessories for the MGB continue to grow. As long as there is a demand, then new options will be continually added. Who would have thought back in the '60s and '70s that electric windows, remote central locking, power steering, heated seats and more chrome add-ons that you can imagine would be available to spruce up your MGB? It all goes to prove that the vast following this car has shows no signs of slowing down and hopefully, it never will.

MG Gets Competitive

MG's are still popular today for race events, and the MGB is a strong contender on many track days. The more modern MGF and MGZR models are also popular on the race circuit with their reasonable costs to purchase and compete in, without the backing of the manufacturer and major sponsors.

Since the original M-type Midget, one of the great draws of MG sports cars has been the fact that it took only a little tuning and a small amount of engineering to make them competitive for racing purposes. As you can imagine only a small handful of owners actually did this, but with the knowledge, that if they ever wanted to tinker with the car and boost performance and handling it was an option open to them.

It didn't take long for MG to issue a rather lengthy list of competition parts for the MGB, including stiffer springs, anti-roll bars (not standard on roadsters until late 1966), and different ratios for both the gearbox and differential.

The factory had very little involvement with racing, and its association with competition racing had been on and off since the middle of the 1930s. Leonard Lord had decided to cancel MG's racing program in 1935, but in 1948, MG managing director S.V. Smith authorised some factory support and help for record-setting attempts. BMC did manage to organise a Competitions Department in the early fifties. Still, MG's racing activities were abruptly slowed down in 1955 following the tragic Mercedes-Benz crash at Le Mans where several spectators were killed; this overshadowed the debut of the prototype MGA.

In 1963, the Competitions Department did manage to put together two modified MGBs for the 12 Hours of Sebring; one of these cars was driven by Christabel Carlisle and Denise McCluggage, and the other by Jack Flaherty and Jim Parkinson. Unfortunately, this was not a great debut for the cars as neither of them finished the race and was halted by engine failure.

Paddy Hopkirk and Alan Hutcherson did manage to improve on the previous attempt and in June of 1963 drove an MGB to a class victory at the Le Mans 24 Hours reaching a very respectable 12th overall. The following year, Hopkirk and his co-driver Andy Hedges managed 19th place at the Le Mans. Don and Erle Morley

achieved a boost with a win in the GT class at the 1964 Monte Carlo Rally that was viewed as a considerable achievement.

BMC's Competitions Department finally closed in 1970 however, privately owned MGBs still compete today. Many well-organized events take place all over the world from track days to hill climbs and time trial events, And the MGB proving itself to be a worthy competitor today after decades on the scene.

MG did start up competitive teams again, in 2001 when they entered the 24-hour Le Mans, the British Touring car championship, and the world rally championship, however not much success came from any of these. MG Rover's liquidation in 2005 put an end to nearly all the competitive teams. The MG ZS was used by a private organization and ended up being called Team RAC.

MG Motor UK Limited as it is now called used the 2012 British Touring car championship to start again through the MG KX Momentum team driving the MG6; it did very well with a manufacturer win for MG in 2014.

This much-loved marque has been around for so many years, from many changes of owners to a continually changing world around us it has overcome many hurdles and given so much to so many people. From the ones who love to tinker with their pride and joy, to those who will always remember their first MG with fond memories.

To the motorsport enthusiast or the car that drove them to their wedding, the MGB is a landmark in automotive design and engineering that will always be loved by so many; hopefully, this will never change.

Hundreds of images here to browse through.

https://www.cchl.co.uk/gallery.html

1. A quick view of the main changes during the full production run.

May 1962	Mark I - First production car completed. (GHN3-101) 18G engine.
July 1962	Last MGA produced (101,081 produced)
September 20, 1962	MGB was officially introduced to the world.
February 1963	Overdrive now offered as an option; factory hard-top provided as an option too.
August 1963	1964 model year. 18GA replaces the 18G engine.
September 1964	1965 model year. 18GB five-bearing engine now fitted, electric tachometer fitted.
March 1965	The Fuel tank was increased from 10 to 12 gallons and supported by bolts rather than straps. Door handles changed from pull handles to push-button type.
September 1965	1966 model year. The MGB GT was unveiled (first production GHD3-71933). Salisbury axle introduced on the GT models only.
November 1966	1967 model year. (GHN3-108039) Front anti-roll bar now standard fitment on roadster.
March 1967	Reversing lights standard on roadster cars from March
April 1967	Reversing lamps now fitted to GT now standard on all cars, Salisbury rear axle is now a standard fit on the tourer.

November 1967	1968 model year - (Mark II) 18 GF engine. All-synchro gearbox and an alternator and negative earth electrics fitted, pre-engaged starter now used.
October 1968	1969 model year, 18GH engine, (GHN4-158371, GHD4-58231). Indicator lamps closer to grille opening.
October 1969	1970 model year - recessed black grille, BL badge on each front wing just in front of the doors, rubber inserts in bumper over-riders, Vinyl seats now used, smaller steering wheel with three drilled spokes, heater standard on both models, Late 1969, Aluminium bonnet replaced by steel.
August 1970	1971 model year, 18GK engine, Ventilation, and heating improved, new interior light, automatic boot, and bonnet stays replace rod-style props.
May 1971	250,000th MGB built
August 1971	1972 model year, 18GV engine, HIF-4 carbs, radio console, and armrest with storage and ashtray facility fitted.
August 1972	1973 model year. 18V engine, wiper arms now black, heated rear window in GT, revised grille with black mesh.
August 1973	1974 model year, 18V engine, automatic gearbox withdrawn, GT withdrawn from California market.
September 1974	Rubber Bumpers introduced, chassis raised 1.5", single 12-volt battery.

June 1976	1977 model year). Electric radiator fan (two for North America and Japan), thicker front onto roll bar, rear unit roll bar becomes standard, gear lever overdrive switch, sealed cooling system.
May 1978	1979 model year. Radio speakers mounted in both doors
March 1979	Start of North American "Limited Edition". 6,682 LE examples built for the North American Market
June 1979	1980 model - Identification numbering changed to comply with US VIN systems. 80 mph speedometer, headlight rims notched for easier adjustment, front suspension cross member modified in anticipation of fitting "O" series engine. (501001).
October 22, 1980	Last two MGBs completed (523001, 523002 respectively)

2. MGB Roadster pull handle model production numbers

Year	Roadsters Produced
1962	4,518
1963	23,308
1964	26,542
1965	3,517
1964	Saw the biggest number of MGB Roadsters produced, more than any other year
1972	The number of roadsters was close to 1964 numbers with 26,222 built.

3. Significant body changes through the years

1962	MGB Roadster introduced
1965 - April	Pull-handle doors replaced by push-button style
1965 September	MGB GT introduced
1967 - March	Reversing lights fitted into the rear panel
1967 November	Both Roadster and GT cars with wider four-synchro gearbox tunnel
1968 November	Front wings changed; sidelights closer to the front grille
1969	Bonnet changed from aluminum to steel
1974	Rubber bumper cars introduced, front and rear wings altered to accommodate bumpers, battery tray, changed for single 12V battery
1976 - June	Engine bay altered (to V8 spec) with radiator mountings further forward.

4. MGB Colours

Colour Name	**BMC/BL Code**
Black	BK.1, BLVC
	90, PMA
Antelope beige	BLVC 7
Bedouin beige	BLVC 4
Bracken brown/orange	BLVC 93

Bronze metallic 1980 Roadster LE	BLVC 370, BMC
Golden Beige Metallic	BG.19
Russet Brown	BLVC 205, AAE
Sandglow beige/gold	BLVC 63
Sandy Beige	BG.15
Aqua turquoise	BLVC 60
Bermuda Blue	BU.40
Blue Royale	BU.38
Iris Blue	BU.12
Midnight Blue	BLVC 12
Mineral Blue	BU.9
Mirage mauve	BLVC 11
Pageant Blue	BLVC 224, JNA
Riviera Silver Blue Metallic	BU.47
Teal Blue	BLVC 18
Tahiti Blue	BLVC 65
Brooklands Green	BLVC 169, HMM
Green Mallard	BLVC 22
Limeflower	BLVC 20
British Racing Green 1962-63	GN.25
Dark British Racing Green 1963-70	GN.29
New Racing Green 1970-71, and 1975 GT Jubilee model	BLVC 25
Tundra olive drab	BLVC 94
Chelsea Grey	GR.15
Grampian Grey	GR.12
Pewter Metallic 1980 GT LE	BLVC 377, MMD

Aconite purple	BLVC 95
Black Tulip purple	BLVC 23
Blaze orange	BLVC 16
Damask Red	BLVC 99, RD5
Carmine Red	BLVC 209, CAA
Flame Red	BLVC 61
Flamenco orange red	BLVC 133
Tartan Red	RD.9
Vermilion orange red	BLVC 118, CML
Glacier White	BLVC 59
Leyland White also known as Ermine White or Porcelain White	BLVC 243, NMC/NME/NAF/NCG
Old English White	WT.3
Police White	WT.2, BLVC 1024
Snowberry White	WT.4
Triumph White	BLVC 206, NAB
Bronze Yellow	BLVC 15
Chartreuse	BLVC 167
Citron	BLVC 73
Inca Yellow	BLVC 207, FAB
Pale Primrose Yellow	YL.12
Snapdragon	BLVC 235, FMN
Harvest Gold	BLVC 19

5. Significant changes to the MGB engine by year

1962	Start of engine production and engine number series
February 1963	New front pulley
March 1963	New outer valve springs and new con rod assemblies
December 1963	Valve cover changed
January 1964	More durable dynamo and new front pulley
February 1964	Closed circuit breathing system, side cover with oil separator, rocker cover with no breather pipe
July 1964	Inlet valve guides updated
October 1964	Updated crankshaft, now with five main bearings
April 1965	Newer rocker cover fitted
June 1965	New pistons and rings design fitted
September 1965	Rocker design changed again electric tachometer now fitted
June 1966	Redesigned water pump used
January 1967	Different thermostat used, new sump.
February 1967	High-compression pistons and rings fitted
August 1967	New water pump

November 1967	Larger flywheel and ring gear, altered closed-circuit breathing system, new Tecalemit oil filter, thermostat, and water elbow changed, block drain tap replaced by a plug. (Changeover to 4 synchro gearbox now)
March 1968	New inlet and exhaust valves, new valve springs
October 1968	New style dipstick and dust protector, carburettor crankcase ventilation instead of closed circuit system.
March 1970	BL stickers used instead of the plate on rocker covers, new oil filter cartridge.
August 1971	All engines painted black.
October 1972	Single timing chain instead of the duplex chain
October 1973	Spin-on oil filter fitted
October 1974	Rubber Bumper cars with new front engine plate and engine mountings, revised cylinder head with smaller inlet valves, new front cover for the engine, new crank pulley, new cylinder front side cover with built-in oil separator.
December 1975	New water pump
From 1977	All these models have electric cooling fans

6. Engine Numbers for Quick Reference

Year	Engine prefix	Engine number
May 1962 - February 1964	18G	101-21121
February 1964 - October 1964	18GA	101-17500
August 1971 -November 1973	18V-581	101-5302
August 1971 -November 1973	18V-582	101-22341
August 1971 -November 1973	18V-583	101-870
August 1971 -August 1972	18V-584	101-19491
August 1971 -August 1972	18V-585	101-2751
August 1972 -September 1974	18V-672	101-38094
August 1972 -September 1974	18V-673	101-6550
November 1973 - September 1974	18V-779	101-5359
November 1973 - September 1974	18V-780	101-7224
September - December 1974	18V-836	101-5401
September -December 1974	18V-837	101-1504
September 1974 -June 1976	18V-846	101-914
September 1974 -October 1980	18V-847	101-40188

December 1974 -August 1975	18V-797	101-9361
August 1975 - June 1976	18V-797	101-10357
December 1974-August 1975	18V-798	101-1694
August 1975 - June 1976	18V-798	101-2007
June 1975 – June 1976	18V-801	101-14801
June 1975 - June 1976	18V-802	101-3509
June 1976 - October 1980	18V-883	101-50984
June 1976 – October 1980	18V-884	101-10425

7. Gearbox and overall ratios for the three synchro models

	Gearbox ratio	Overall ratio
First gear	3.6363:1	14.2142:1
Second gear	2.2143:1	8.6557:1
Third gear	1.3736:1	5.3694:1
Fourth gear	1.00:1	3.909:1
Overdrive	0.82:1	3.1350:1
Reverse gear	4.7552:1	18.5881:1

8. Gearbox Ratios for MK11 1967 - 1974 cars

	Gearbox ratio	Overall ratio
First gear	3.440:1	13.446:1
Second gear	2.167:1	8.470:1
Third gear	1.382:1	5.402:1
Fourth gear	1.00:1	3.909:1
Overdrive	0.82:1	3.205:1
Reverse gear	3.095:1	12.098:1

9. Gearbox Ratios for 1974 - 1976 cars

	Gearbox ratio	Overall ratio
First gear	3.036:1	11.867:1
Second gear	2.167:1	8.470:1
Third gear	1.382:1	5.402:1
Fourth gear	1.00:1	3.909:1
Overdrive	0.82:1	3.205:1
Reverse gear	3.095:1	12.098:1

10. Gearbox Ratios for 1977 - 1980 cars

	Gearbox ratio	Overall ratio
First gear	3.333:1	13.03:1
Second gear	2.167:1	8.470:1
Third gear	1.382:1	5.402:1
Fourth gear	1.00:1	3.909:1
Overdrive	0.82:1	3.205:1
Reverse gear	3.095:1	12.098:1

11. Production figures for the automatic gearbox

Year - 1968	
MGB GT home market cars	74
Export GT cars in RHD	10
Export GT cars in LHD	2
MGB Roadster home market cars	12
Export Roadster in RHD	2
Australia Roadster	36 (CKD completely Knocked down)

Year 1969-1971		
MGB GT home market cars	475 Export GT cars in RHD	40
Export GT cars in LHD		30
MGB Roadster home market cars		90
Export Roadster cars in RHD		10
Export Roadster in LHD	7 Australia Roadster	192 (CKD)
Year 1972-1973		
MGB GT home market cars	603 Export GT cars in RHD	29
Export GT cars in LHD		22
MGB Roadster home market cars		92
Export Roadster cars in RHD		3
Export Roadster cars in LHD		6

12. Inlet Manifolds

	FLANGE	CASTING NUMBER
12H911	THICK	12H708
12H1397	THICK	12H1398
8G767	THICK	12H2568
8G774	THIN	12H2568
CHM171	THIN	12H2568
8G767	THIN	CHM171
8G774	THIN	CHM171

13. MGB Wiring Harness

1962/1967	Positive earth and early cars with Jaeger gauges then moving onto Smiths gauges, dynamo fitted.
1967/1968	Negative earth cars with an alternator and separate control box
1968/1969	Alternator with integral control box
1969/1970	Horn control on the indicator stalk
1970/1971	Horn back in the centre of the steering wheel
1971/1972	Radio and additional accessories in console
1972/1973	Tachometer change to RVC from RVi
1973/1974	Hazard warning lights fitted
1974/1976	First of the rubber bumper cars with O/D on the stalk
1976/1977	Later rubber bumper, O/D on the gear knob, single line brakes, separate dash loom now used MGB Wiring Harness - 1977 Dual-line braking system
1978	18 ACR Alternator re-introduced
1979	Rear fog lamps fitted
1980	Final change with spade connections for the radiator fans were now used.

14. The factory carpet colours

Year	Colours	Model
1962- 1967	Black, Red, Blue,	Roadster and GT
1969	Black, Brown	Roadster and GT
1970	Black	Roadster and GT
1971	Black / Autumn leaf	Roadster and GT
1972	Navy / Autumn leaf	Roadster and GT
1973	Navy / Ochre	Roadster and GT
1974 - 1976	Black / Autumn leaf	Roadster and GT
1977 - 1980	Black	Roadster and GT

15. Body colours for the GT V8

Name	Colour Code	Number Built	Years Produced
Glacier white	BLVC59	513 1973	1976
Damask Red	BLVC99	472 1973	1976
Citron	BLVC73	267 1973	1974
Teal Blue	BLVC18	244 1973	1974
Harvest Gold	BLVC19	183 1973	1974
Bracken	BLVC93	154 1973	1976
Flamenco Red	BLVC133	147 1975	1976
Blaze	BLVC16	147 1973	1974

Aconite	BLVC95	98 1974	1975
Tundra	BLVC94	92 1974	1976
Tahiti Blue	BLVC65	90 1975	1976
Black	BK1	79 1974	1976
Bronze Yellow	BLVC15	26 1973	only
Chartreuse	BLVC167	19 1975	1976
Brooklands Green	BLVC169	17 1974	1976
Mirage	BLVC11	17 1974	only
Green Mallard	BLVC22	15 1973	1974
Sandglow	BLVC63	8 1975	1976
Black Tulip	BLVC25	5 1973	only
Police White	BLVC1024	2 1973	1974
Lime flower	BLVC20	2 1973	only
Flame Red	BLVC61	1 1973	only
Ermine White	BLVC243	1 1975	1976
BRG	BLVC25	1 1975	only

16. MGB GT V8 Gearbox ratios

	Gear Ratio	Overall ratio
First gear	3.138:1	9.637:1
Second gear	1.974:1	6.062:1
Third gear	1.259:1	3.866:1
Fourth gear	1.00:1	3.071:1
Overdrive	0.82:1	2.518:1

17. MGB GT V8 production numbers

Date	Number	Notes
December 1972	101	Pre-production, three cars built in 1972
January 1973	103	First pre-production car built during 1973
April 1973	124	Start of total production
August 1973	604	Start of 1974 model
January 1974	1173	First car built 1974
September 1974	1956	Last 1974 model chrome bumper car
September 1974	2101	First 1975 rubber bumper car
January 1975	2167	First car built in 1975
August 1975	2632	Last 1975 model
October 1975	2701	First 1976 model
January 1976	2721	First car built in 1976
June 1976	2901	End of series production
July 1976	2903	End of production

18. MGB GT V8 specification details at a glance

Production years	1973-1976
Body type	GT version only from the factory
Engine	3528cc V8
Bore	88.9mm
Stroke	71.1mm
Compression ratio	8.25:1
Engine block	Aluminium
Fuel	Twin SU Carbs
Fuel tank	12 gallons
Max power	137bhp @ 5000rpm
Maximum torque	193lb ft. @ 2900rpm
Power-to-weight ratio	128.4 bhp/ton
Maximum speed	125mph
0-60mph	8.5 seconds
Fuel consumption	22mpg
Gearbox	4-speed manual with overdrive
Brakes	Discs front and drums rear
Steering	Rack and pinion
Wheels	Composite: alloy centres/ steel rims 5J x 14
Tyres	175HR 14 radial tyres
Unladen weight	2390Ib

CCHL Began trading in the early ’90s, back then you could buy a decent MGB Roadster for around £7,000 depending on the car's specification of course, this price increased to circa £15,000 in 2014, between £25,000 and £75,000 today, depending on the specification you require. https://www.cchl.co.uk/current-stock.html

Black CCHL MGB GT with Minilite wheels

https://www.cchl.co.uk/ **https://www.cchl.co.uk/about-us.html**

Author: Simon Lucas