NEWSLETTER

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V8 Register

WELCOME TO THE V8 NEWSLETTER

MGBGTV8 - tools and materials

Routine engine oil change on a V8

With lower use of their MGV8 during the Covid restrictions some owners may have deferred routine vehicle servicing and may be concerned over possible consequences. Clearly the safety related aspects of servicing must not be overlooked and the regular inspection of brakes, tyres, suspension and steering should be resumed as soon as possible but here Jim Livingstone seeks to address the less safety critical consequences of deferring an engine oil change.

What are the consequences of extending the oil change interval?

As most owners will know, the products of combustion in a petrol engine are primarily carbon dioxide and water plus a complex mix of chemicals, some of which find their way into the engine oil. Filtration will remove most of the particulate matter but the acidic chemicals remain in circulation. One of the purposes of regular oil changes is to remove those residues. Apart from its frequency, the timing of oil changes can be just as significant. For many MGBV8s nowadays, winter is a time of inactivity and in such circumstances contaminated oil will have a detrimental effect on the life of the engine – as the oil drains off metal components the acid contaminants will attack the surfaces of the bearings surfaces and the particulates will settle to form sludges. To avoid that damage an autumn oil change to give the engine an internal coating of clean oil for the winter months is recommended.

The MGBGTV8 is a relatively straightforward vehicle to service but its engine lubrication system has some peculiarities worthy of note. As owners will be aware the oil filter is located remotely on the right-hand inner wing just behind the radiator panel. A cartridge filter is employed and with a suitable strap wrench this can be removed relatively easily. A separate oil cooler is located close to the filter but apart from a periodic check for leaking hoses and unions this is maintenance free. Finally, the oil pump has the relatively rare distinction of being driven by the distributor and not vice versa. This feature allows the pump to be rotated by an external source (for example a power drill) once the distributor is removed. The process is covered in greater detail in V8NOTE206 and V8NOTE430 and is useful if the engine has been lying idle for an extended period. See our “More” webpage for links to those notes.

The main considerations when undertaking an oil and filter change at home are do you have access to the relevant data, do you possess the necessary equipment and facilities, are replacement parts and materials available and are there facilities for safe disposal of the used materials? The purpose of this article is to provide enough information for an owner to tackle this task with confidence.

Data, Tools and Materials

The data you need are: the engine including the filter has 8pints (filter is


MGBGTV8 - sump drain plug


MGB GTV8 - strap wrench to the oil filter canister and rotate

half a pint), the oil grade is 20W/50 and the sump plug torque is 40Nm. The tools and equipment you will need are disposable oil resistant gloves, a 7/16"Whitworth or 21mm wrench (hexagon socket preferred as the sump plug is brass) and filter removal tool and a funnel. The parts and materials you need are an oil drainage container, low rise ramps (optional), oil filter (part no: GFE121) and a sump plug seal (part no: 213961) and 9 pints of 20w/50 engine oil. If purchasing online it is more economic to procure several filters and sump plug seals at a time as the charges for post and packing are only marginally greater.

Procedure

1. Warm up the engine to get the particulates into suspension and reduce the oil viscosity. A brisk drive of up to 5 miles should be adequate.
2. Check that you can reach the sump drain plug. It is located at the left rear corner of the sump (see image 4) and is most easily accessed from behind the left front wheel. If additional height would be an advantage low rise ramps or axle stands may be useful.
3. Place the drainage container under the sump, wipe clean the surrounding area and carefully remove the plug. But note a caution: a gallon of hot oil will exit rapidly, so ensure that you are protected from contact as it will burn bare skin and also contains harmful carcinogens. The surrounding area should be covered with disposable sheeting. The drain plug will be difficult to retain but can be retrieved from the drainage container once the oil has cooled.
4. Leaving the sump oil to drain, attach the strap wrench to the oil filter canister and rotate clockwise when viewed from above (see image 5). A spray of light oil like WD40 on to the top seal may help.
5. The canister will contain 1/2 pint of hot oil and should be kept upright to prevent spillage. It can be extracted upwards through the gap between the radiator and the alternator drive belt. Clearances will vary between vehicles and it is advisable to check the gap with a new filter beforehand. It may be necessary to remove the alternator belt to facilitate extraction. Some disposable sheeting under the filter and its extraction route will reduce the clean-up required.
6. Empty the oil filter canister into the drainage container.
7. When the oil has drained fit a new sump plug seal, insert the plug and torque to 40Nm. If a torque wrench is not available, ensure that the new seal is fully compressed, use a medium wrench (3/8" socket driver) and tighten firmly.
8. Remove and clean the oil filler cap and insert the funnel.
9. Remove and wipe the dip stick. Refill the engine with approximately 7 pints of fresh oil until the oil level registers on the dipstick.
10. Fill the oil filter canister with approximately half a pint of fresh oil. This will be a slow process as it takes some time for the viscous oil to permeate the filter medium. The purpose of priming the filter it to reduce the time taken for the oil to circulate through the system.
11. Coat the top seal with fresh oil and refit the canister to the filter head. Hand tighten only and do not use tools.
12. Lower the front of the car before starting the engine to ensure that the pump pick-up is immersed in oil and aeration is avoided.
13. Start the engine and run at a fast idle (1000 – 1200 rpm). Check the sump plug and filter for signs of oil leakage. Tighten as required.
14. Stop the engine, check the oil level and top up if necessary.
15. Periodically check for leakage during the first week of running.
16. Dispose of all waste in accordance with local bylaws. Used oil is generally accepted at a council waste disposal centre.

Oil and filter change on an RV8

John Anthistle mentions a few of the oil change differences with an RV8. For example you will need 5.5 litres of semi-synthetic 10W/40 engine oil, - preferably to AECA A3 or API SL spec. The sump plug torque is 45Nm.

Next the sump drain plug is located at the left side rear of the sump and is most easily accessed from behind the left front wheel. The small ground clearance of the RV8 makes this difficult and it is therefore advisable to raise the front of the car, either on ramps or by jack and stands under the front suspension cross-member. Never rely only on a jack only for support.


RV8 - sump drain plug on nearside


RV8 - oil fill point and funnel.

Repositioning the rocker cover bracket

Jim Livingstone had noticed on the rare occasions he had removed the centre bolt in the air filter centre housing that he always experienced difficulty refitting it. He found the cause was misalignment between the air filter and its mounting bracket on the rocker cover caused by the bracket being tightened in the wrong sequence during a previous assembly. The MG designers had recognised the considerable **tolerance stack up*** between the air filter and the rocker cover and had provided elongated holes in the mounting bracket. The consequence of this was if the bracket was reassembled to the rocker cover and prematurely tightened it was likely to be in the wrong position. There is another problem associated with the bracket's position and that is if the bracket is positioned too close to the rocker cover then the air filter bolt can contact the cover and cause minor damage to the ribbing.

The procedure which follows describes an assembly sequence to avoid these issues.

Procedure

1. Remove the air filter (1 bolt) and mounting bracket (2 bolts).
2. Ensure that there are adequate size washers to cover the elongated holes in the bracket.
3. Refit the bracket and loosely secure with its bolts.
4. Refit the air filter with its centre bolt.
5. Engage the centre bolt with the weld nut in the bracket and tighten.
6. Check that there is clearance between the protruding tip of the centre bolt and the rocker cover. Raise the assembly, if necessary, to obtain clearance.
7. Tighten the 2 bolts to secure the bracket to the rocker cover.
8. Repeat the procedure for the air filter installation on the other bank.

Tolerance stack up is where individual component variations can add up to a significant total variation in an assembly. Unless allowed for, final assembly may not be possible.

Updated MGV8 market and price review

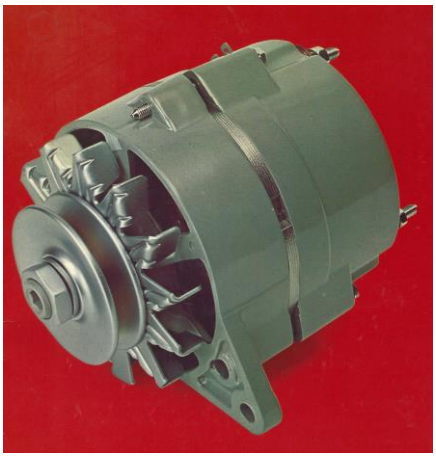
Our updated six monthly MGV8 market and price review released on the V8 Website in early November covers the 6 months to the end of October 2020. The review and guide cover the MGBGTV8 and MG RV8 models and are based on the data gathered from the "spots" of MGV8s seen advertised for sale, sold or up for auction by our two Pricewatch volunteers, Keith Belcher and Ralph Hardwick.

Over the last 6 months we have seen a particularly disrupted market with:

- **Significant Covid social contact constraints in the UK** with a lockdown when major gatherings were required to cease, then an easing of the constraints and now with a serious rise in infections across the UK we are seeing tough restrictions again.
- **Continued classic car market activity has been seen in the UK** with a moderate flow of MGBGTV8s and RV8s advertised for sale and up for auction. Many auction houses have nimbly adapted to the constraints over physical auctions and established effective online auctions. Sadly we have seen signs that some MGV8 sales are likely to have been distress sales where the seller may have been suffering financial stress from the Covid constraints on their business or on their employment situation. But generally buyer interest and activity remains strong.
- **Four months of deep winter are ahead** of us with a continuing struggle to contain the pandemic with a series of "circuit breaker" lockdown measures and currently a more serious Lockdown 2, mixed behaviour compliance amongst a significant proportion of the UK population, increasing concerns over the prospects for the UK economy and the rising UK debt funding the various financial support initiatives announced by the Chancellor of the Exchequer.
- **Rumours of negative interest rates** hint at such an unusual step in the UK financial market which is likely to see many people with cash deposits looking for alternative places to hold their funds. That could easily stimulate another period of "alternative investor" activity with some deciding to move cash into classic cars. When we last saw alternative investors active in the market there was a tendency for them to buy classic car "cherries" like Astons, Jaguars and Ferraris but there were also clear signs that their buying activity reached more modest classic car markets like MGV8s. Over the next 6 months our Pricewatch team will monitor signs of alternative investor activity.

Our UK market review and updated price guide are subject to an important caution at this time when the classic car market is not able to function as normal because of the various Covid social contact constraints and regulations in the UK and may not do so completely for many months ahead. So our updated price guide for the 6 months to the end of October 2020 and the market review are at best an indication in these difficult times rather than a guide.

See the full updated review and guide via a link on the "More" webpage.



AC DELCO manual

The service manual covers fault diagnosis, the removal and dismantling procedure, component testing and the reassembly procedure. The 46 page manual is a useful reference and a copy is now available for members on the V8 website. Often a fault with an alternator can be repaired by a specialist - see our note on three specialists who can service an AC DELCO via a link on our "More" webpage at www.v8register.net/more.htm .

V8 Face Masks

With 95% polyester and 5% Spandex and elastic loops that fit comfortably around the ears. See the "More" page.

The 1975 MG, MGB GT, MGB GT V8, and Midget are the first British car to feature Bayer's Bayflex bumper system.

Bayflex - the one bumper system that's a lot more than show.

The latest MGB, MGB GT, MGB GT V8 and MG Midget incorporate Bayer's Bayflex integral skin polyurethane foam bumpers front and rear.

British Leyland are the first UK motor manufacturer to produce cars fitted with bumpers made from the totally new Bayflex system. Meeting the US Federal legislation re 5 mph collisions Bayflex was found to be the only material that meets all requirements – is flexible, highly resilient and satisfies the aesthetic demands made on an exterior body part.

Bayflex bumpers are the result of the most advanced research and testing and provide the last word in vehicle protection. It's yet one more example of how Bayer technology is helping to build better cars and make the roads a safer place.

Bayer UK Limited, Polyurethane Division, Bayer House, Richmond, Surrey TW9 1SJ.

Bayer

BAYER

No. PU 1077/1B

Bumper system that's a lot more than show

In 1974 BL were the first UK motor manufacturer to produce cars fitted with bumpers made from the totally new Bayflex system. Keith Belcher spotted the advert saying "I was doing some research the other day and came upon this advert from 1974".

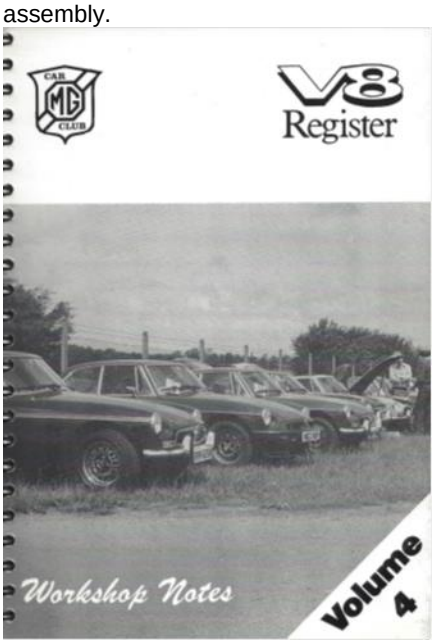
Fourth volume of notes launched in 1984

The fourth volume of the V8 Workshop Notes series was published in May 1984 starting at Note 101 by Geoff Allen with the title "Take care - your balls may drop!" Here is the note.

The carburettor dashpot damper on the MGBGTV8 is clipped into the tube of the dashpot piston. Therefore, when the three securing screws are removed the cover, piston and damper can be lifted off as an assembly. If the damper clip becomes weak or is broken, the cover and damper are lifted off leaving the piston in position in the carburettor body. The natural reaction is to take it out and replace it in the cover without checking.

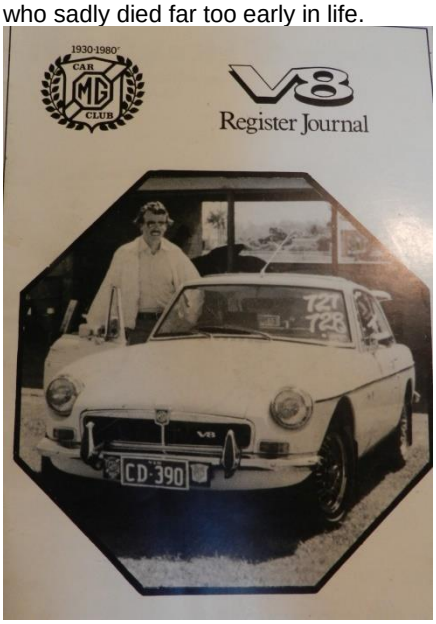
Now, just a brief refresher on the SU HIF carburettor. Inside the dashpot cover is a piece of tube (bronze on early V8s, nylon or similar on later cars) which has six balls of about 3/32 inch diameter at each end to act as a bearing, and with the tube of the piston and when the assembly is replaced and the engine started, they are sucked through the two holes in the bottom of the piston and into the cylinders making a rather nasty noise on the way through as the space between the cylinder head face and the outside rim of the piston is rather less than the diameter of the balls. If anyone has the misfortune to have this happen to your V8, switch off immediately and try to recover the balls from the cylinders before too much damage is caused. It may be possible to remove them through the spark plug holes with a small magnet (drain plug type) on a piece of wire. But do not forget that on the side of the suspect carburettor, the cylinders are the front and rear and on the other side the two centre cylinders which at the worst could involve the removal of both cylinder heads. If you take the heads off, you will see the piston and rim will bear indentations made by the balls, apart from the possibility of damaged valves and seats.

The moral of the story is whenever the dashpot piston is removed from the cover, take it to the bench and make sure that you have all twelve balls in position before refitting it to the unit. Also I have seen cases of the washer which holds the tube and ball assembly in position becoming uncrimped allowing the tube to drop with the same result. This seems as good a reason as any for regularly inspecting the assembly.



40 years ago

On the cover is Chris Dodds, an early member of the V8 Register in Australia who sadly died far too early in life.



Fitting a grille badge to an RV8

Soon after getting an RV8, Paul Wilson joined the Club in June 2020 and purchased the small grille badge. In a post on the V8 Bulletin Board he sought help saying “the apertures in the grille on the RV8 seem to be just too small to permit the folding ‘wings’ of the badge to slip through. Short of bending and ruining the integrity of the front grille, is there an alternative way to secure your badge?” Here Marion Quarrington explains how she fitted a grille badge to her RV8.

Photo 1: grille badge kit

It is not easy to fit some types of grille badge to an RV8 due to the reduced access at the rear of the grille. Here Marion Quarrington explains how, with some simple tools, it is possible to fit a grille badge without dismantling any of the car. This guide is for the grille badge kit consisting of two butterfly springs with threaded insert, two threaded bolts and the badge, see Photo 1.

Brief guide

The key to fitting the grille badge is to prepare the butterfly spring and then grip it in a suitable tool so that it can be offered up into the small space at the back of the grille. Photo 2 shows the pair of locking pliers that we used for this, but slim mole grips would also work. Note that it may be helpful to have a second person at the front of the car to assist at Step 3.

Step 1

Get secure access to the front of the car from underneath, either by jacking the car and putting it on axle stands, or by using a pit.

Photo 2: locking pliers with a bolt

Photo 3: folded butterfly spring

Step 2

Take one of the butterfly springs, and rotate the threaded insert as necessary until the thread is fully available. Gently fold the wings towards each other until they are almost parallel, (see Photo 3) which will move the spring away from over the insert, see Photo 4. Grip the wings in this position using a suitable tool, and check that the bolt will run smoothly between the wings and into the insert.

Step 3

Fit the bolt through the badge and identify where on the grille it is to be fitted. Offer the butterfly spring up to the back of the grille, with the wing tips against the grille. Note that, depending on the size and shape of the badge, the wings can often be positioned so that they will not visible from the front of the grille. Offer the bolt through the grill from the front, engage the bolt in the threaded insert and use an appropriate screwdriver to continue. The overall intent of how the kit goes together is shown in Photo 5. Once the bolt is running through the insert the lock on the tool can be released to allow the wings to open against the back of the grille, which will also put the retaining spring in tension against the bolt. Do not fully tighten at this point.

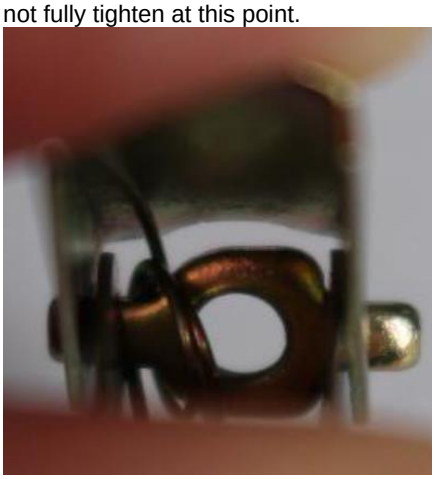


Photo 4: spring moved from over the insert

Step 4

Repeat with the other bolt and then tighten both bolts to the required tension once the badge has been positioned correctly.

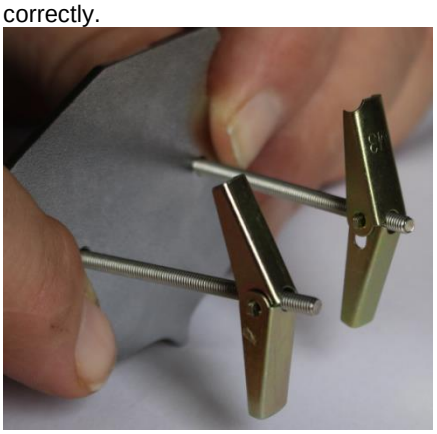


Photo 5: wings open to clamp on the back of the grille