



Coolant bleed insert in the coolant hose

RV8 coolant bleed insert

Anyone who has done the job will know what a pain it is to refill the RV8 cooling system when changing the coolant or following work on the system. Here Stuart McGuigan describes a modification he has made which makes the job far easier.

With the original RV8 cooling system, filling has to be done very slowly and, in the final stages, you are as likely to fill the valley gasket as the cooling system, when trapped air coughs back through the filler pipe. No amount of squeezing of the top radiator hose will fully purge air locks from the system, and entrapped air will accumulate in the arch of the hose when the engine is running - leading to reduced coolant flow and possible engine overheating.

I have devised a solution in the form of a **coolant bleed insert** fitted in the top radiator hose. A prototype fitted to my car is shown alongside. My company has now made a small batch of the bleed inserts and these should be available shortly through Clive Wheatley at MG V8 Parts.

New coolant bleed procedure

The procedure to fit the bleed insert and fill the cooling system is as follows:

1. **Partially drain down the system** so that the top hose is emptied. Cut the top hose in the centre of the arched portion. Fit the bleed insert, secure with two 45mm hose clips (preferably stainless steel) and remove the bleed screw.

2. **Set the car heater control to 'hot'** in order to fill the heater matrix with coolant.
3. **Remove the coolant filler plug** located to the right (offside) of the inlet plenum chamber. You will probably already have replaced the original unreliable plastic filler plug with a metal brass one. If not, standard flanged brass plugs are readily and cheaply available from the MG V8 spares specialists, plumbers merchants or on eBay: the size is 1/2 BSP.
4. **Remove the expansion tank cap.**
5. **Fill with the correct type and strength of coolant** via the filler pipe until the correct level in the expansion tank is

reached. It is necessary to fill fairly slowly to avoid spillage from the filler pipe. A plastic funnel screwed into the pipe is helpful, as is wrapping a piece of absorbent rag or kitchen roll round the pipe to catch any spills. There should be minimal coughing back into the funnel when pouring the coolant in, and self-purging of entrapped air in the system via the bleed screw hole as the system fills up.

6. **Refit the expansion tank cap** when the level is correct and then continue to fill until coolant starts to issue from the bleed screw hole in the bleed insert. A rag placed under the insert will catch any small spillage.
7. **Refit the bleed screw**, with its sealing washer, and tighten. Continue to fill until the fluid reaches the top of the filler pipe.
8. **After a trial run** - and after allowing the system to cool, of course - depressurise the system by removing the expansion tank cap and top up the tank to the correct level, if necessary. Replace the expansion tank cap. Then remove the filler plug, check the coolant level in the filler pipe and purge any remaining entrapped air by simply 'cracking' the bleed screw. Top up the filler pipe after purging and replace the plug.
9. **You should also check the heater** is working on your trial run, which of course it should be, since the heater valve will still be open!
10. **Recheck for entrapped air** after a few more runs, as at point 8 above.

The above ten point procedure still appears fairly involved when written down step by step, but it is quick and easy to carry out in practice and - as Clive Wheatley says - it works a treat!



Coolant bleed insert



Date mark on the tyre wall

Check the age of your tyres

Tyre safety is a topic we have highlighted on many occasions, not least the age effect on tyre rubber and the consequent reduced braking and roadholding performance. Over time the suppleness of tyre rubber reduces so that by around 7 to 8 years old the ageing effect will have reduced the flexibility of the rubber as it hardens and begins to take on the characteristics of wood.

For most classic car enthusiasts doing modest annual mileages this will inevitably mean the **tyres age well before they wear out**. For many it will feel wrong to throw away tyres which appear to have plenty of tread remaining, but with a sportscar with a suspension package from an earlier age, it is essential to have good dry and wet grip, handling and braking performance together with supple rubber for a comfortable ride.

You can check the age of your tyres very easily by reading the **date mark on the wall of the tyre**. You will see an elongated circle containing two numbers, for example **0508** which dates the tyres as **week 5 in 2008**. So those tyres will be coming up to 8 years old in February 2016. – see our guide note on tyre wall marking via our “more” link below.

The popular Classic Car Weekly newspaper undertook tyre tests on an MGBGT a couple of years ago in a controlled environment and the results highlighted the substantial difference between the braking performance using fresh rubber when compared with old tyres despite having legal amounts of tread were more than five years old. In braking tests from 50 mph in dry conditions, new tyres reduced the braking distance by a third when compared with the older tyres. That was a staggering difference of just over 60ft (18.6m) – the braking distance for the old tyres was 183ft (56.45m) and the new 122ft (37.55m).

Choosing replacement tyres

This has been made easier to some extent by the compulsory performance labelling on tyres but if you want useful comparative performance information on the top tyre choices then you need to see the results of recent tyre tests. With regular improvements in tyre technology and new rubber compounds being introduced all the time, new tyres can give better grip, roadholding and comfort. In our review of replacement tyres for MG V8s last year we looked at independent comparative tyre tests carried out by Auto Express magazine. Their top tyre was the Dunlop Sport BluResponse which eased out the long-time favourite with many V8 enthusiasts, the Continental Premium Contact5. You can see our replacement tyre review via the “more” link at www.v8register.net/more.htm

V8 Technical Day 2016

Following the successful V8 Technical Days in 2014 and 2015, Roger Aldridge is planning another for Saturday 21st May 2016 in the John Thornley Suite at Club Office with three speakers in the morning, lunch and then a move over to Frontline Developments in Abingdon for presentations on their activities and a tour of their new factory. There will also be a chance to look at their new MGBs. Booking will be available on the V8 website from January 2016.

Autumn V8 meeting near Zurich

Victor Rodrigues, who runs the Swiss V8 group in Switzerland (SWISS-MGV8/IG), reports that they held the traditional Autumn gathering at his attractive garage near Zurich on Saturday 24th October. Victor's garage is a remarkable place, full of MG memorabilia on the walls, and an ideal place for the group's traditional Porto-Apéro where they enjoy beautiful wines from Portugal. It was followed by a short country drive and lunch. They were very lucky with the weather – a beautiful sunny and dry Autumn day. Victor Rodrigues says “this time we welcomed a new member, Hermann Russ with his wife Anja and son Max, with an outstanding LHD-converted RV8, now here in Switzerland.”

Tax class changes to “Historic”

As very nearly all MGBGT V8 models are now eligible for road tax exemption, most owners will want to arrange for the tax class change from PLG to Historic as soon as the opportunity arises in April as the eligibility for the 40 year rolling VED exemption arrives. So if your car is approaching that point it is worth noting a clarification the FBHVC has received from the DVLA – “A change of tax

class can only be carried out when a licensing application is made, not when a SORN declaration is made. However the Post Office can re-license a vehicle in the Historic tax class if it has previously been under a SORN.”

Before a successful tax class change from PLG to Historic is made, the DVLA records will show the “date of the vehicle” will be the date of first registration and not the build date because their records did not hold the build date, only the date of first registration. This is an important matter because a car might have been built in December 1973 but not registered until June 1974 for example. It was not unusual in 1973/74 for sales of MGBGT V8s to be slow because at that time there was a fuel crisis in the Middle East. So a key part of a tax class change application is submitting evidence of the “build date” of your car, particularly in cases where the build date and date of first registration straddle the year end which determines eligibility as in the example noted above.

Changes to vehicle tax rule

When the paper tax disc ended some changes to the vehicle tax rules appeared – but there was confusion. After some delay a clarification has been released on the GOV.UK website which says “when you buy a vehicle, the tax or SORN doesn't come with it. The tax or SORN isn't passed on when you sell a vehicle or transfer ownership to someone else. This includes giving a vehicle to a member of your family. You must tell the DVLA when you sell or give away a vehicle. A new logbook (V5C) will be sent to the new owner and as the seller you'll get a vehicle tax refund from DVLA by cheque for any remaining months, usually within 4 to 6 weeks”. But that explanation is still not quite right.

Actually any existing tax continues **until the notification of change of keeper reaches the DVLA**. But clearly a practical implication remains – if you travel to buy a car that is currently taxed, do you tax it yourself before you drive it home as the DVLA says you should, or do you drive home with the tax still valid because until the V5C (sent by mail to the DVLA by the Registered Keeper as the seller) physically reaches the DVLA, they will not have received notification of the sale which legally cancels the existing VED?

This is only likely to arise on a purchase from a private individual as dealers are unlikely to have current tax on a car they sell because as a matter of routine they will cash in the residue of any remaining whole months of the VED.



Photo 1 – front suspension with the drop link

Check your antiroll bar drop links

Recently there have been some failures of the front antiroll drop links. These connect the outer ends of the antiroll bar to their respective lower suspension arm. The antiroll bar, as its name implies, stiffens the car's tendency to roll, by simply acting as a strong spring when one side of the car moves differentially to the other. It does not affect the overall stiffness of the front suspension; but does make a significant difference to the handling. It will be clear

that the forces involved in preventing body roll of 1,200 Kg vehicle cornering at speed are high, and the stress on these links is considerable. As some of our V8s are now over 40 years old, and its successor, the RV8 around half of that; Nic Houslip feels it is probably worth spending time checking the condition of the drop links. Failure of the link will affect handling, by allowing much more body roll in corners.

The general arrangement of the suspension is shown in Photo 1 taken of my MGBGT, but the V8 is similar, as is the RV8.

The MGC has a different arrangement of links and is not covered here. The ball ended part of the drop link is a bonded rubber to metal bush that allows some compliance as the movement of the lower suspension arm and the antiroll bar are not in the same plane and also minimizes the transmission of noise into the structure of the car. The top end, a forked metal pressing is attached to the end of the antiroll bar with a bolt that passes through another bonded rubber to metal bush inserted into an eye in the end of the roll bar.

What to look for

The drop links are items that are inspected by the MOT Tester, usually a visual inspection for the condition of the rubber bonded parts and by using a pry bar to check its security and integrity. See Photo 2. They will apply significant force to do this. If you do this, take care not to rock that car off the axle stands. Do not do this check with the car on a jack, neither the one that came with the car nor any other.

The drop link failures seen recently (Photo 4) have occurred where the steel tube is welded to the forked end. Photo 3. Rust or corrosion in this area should be scraped or wire brushed away, if there is any sign of a crack or gap, the link is suspect and is best replaced, as they are not expensive. It is important to source good quality replacements. Buying replacements from a reputable source is a good idea, although there are some which seem to have a rather spotty weld quality where the steel tube is welded to the forked end. In Photo 5 you can see the forked end of two new drop links, obtained from B&G, the one on the left is for an RV8, Part Number ZKC5754, DROP LINK LH, (RH is ZKC 5755) while the one on the right is for an MGB, Part Number AHH6544A, DROP LINK LH ANTI-ROLL BAR (RH is AAH6543A).

Close inspection of these parts reveals some differences, not the least of which is the thickness of the material used for the fork and the depth of same, Photo 5. In other respects the parts are the same dimensionally except the diameter of the holes in the RV8 fork, which are 11mm dia. More on this later.



Photo 4 - failure



Photo 2– checking security of the link with a pry bar

How to do the inspection

You will need to jack up car and put an axle stand or other support under the frame rail or the cross member before you get underneath the car. You will also need to remove the front wheel on each side to be able to see the links. Or if you are lucky enough to have access to a car lift, put the car on the lift. The replacement is relatively simple, but is best done with the weight off both wheels for best access, although it can be done with car with its weight on the wheels, so raising the car with a trolley jack under the centre cross member and then arranging axle stands to support the body is the best way, it allows both wheels to be removed, when access to the top bolt is easier. The nut on the threaded portion of the ball joint (3/4" AF) will be tight, so a longish ring or combination spanner will make this easier, as will a spray of penetrating fluid on the night before.

Having removed the nut, move to the upper end and remove the nut (5/8" AF) on the bolt that goes through the formed end and through the eye of the antiroll bar. The

link can then be replaced. Inspect the bush in the antiroll bar eye for obvious signs of rot, some slight surface cracking might be seen, but this is usual. If you have any doubt, or find that the bush can be moved with the fingers then replace, or have them replaced.

Bush replacement will probably require removal of the antiroll bar and the use of a workshop press.

Important note, **do not attempt to remove a drop link with the car lifted on one side only**. In this situation the antiroll bar will be doing its job and the links will be under tension or compression by a significant amount and attempting removal might lead to personal injury.

Check for residual stress. When you come to replace the links, there may be a slight difference in the length of the link that is needed, if it is so much that moving the link or the roll bar end by hand it is not possible to get the bolts to enter, suspect a twisted antiroll bar or a sagging front spring.

It appears to be possible to **replace an MGB drop link with a later and stronger**

RV8 part, but not vice versa, so to prove this I fitted an RV8 part to the left side of my MGB. The diameter of the hole in the fork needs slight modification to allow the bolt pass through, on the B the hole is 7/16" (0.4375") while the RV8 Part is drilled 11mm (0.43307").

To prove this modification works I have run the car for an extended period under hard cornering, in Photo 6 you can see me placing the LH link under extreme compression load and the RH link under tension; the opposite occurs when taking left hand corners. Note: this MGB is fitted with a thicker than normal antiroll bar so the test will be arduous.

The BGT and the BGT V8 weights are very similar, the V8 motor in fact weighs a little less than the iron block B series, but the V8 is shod with wider tires and higher cornering loads may be generated.



Photo 5 – MGB and RV8 links



Photo 3 – rust should be removed from the weld area



Photo 6 – drop links working hard