



Austin 3-Litre



Owners Club Newsletter November/December 2013



Alexander Boucke enjoying a wet track day ride

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Neil's Bit

Hi Folks;

Welcome to our last big newsletter of 2013, (At 20 pages it's more like a book than a newsletter this one!) I may do a mini Christmas one though, where has this year gone. It has been a truly wonderful year for the club; we have certainly gained a huge amount of recognition during the course of the year. Our cars have also changed in the eyes of the world from being seen as a daft BMC oddity to the truly amazing cars they really are. The story in the press of CGU's restoration and our fabulous national meet at Peterborough, and its subsequent publicity saw a marked increase in website hits, correspondence, interest in our cars and happily lots of new members. CGU did make it into the final 30 cars for classic car of the year competition, but sadly not into the final 5. Still a fine achievement though none-the-less.

New membership continues to flourish. We have five new members to welcome this issue, so welcome to John Wilkins, Joe Barling, Don Barling, Jeff Keighley and Andrew Dunne.

Prices the cars are selling for at the moment still continues to amaze me, I think this is one reason so many cars have come onto the market of late as well, money talks I guess. I have been looking through some old newsletters from the 1990's, we had cars advertised "needing work" for £150 and £200, taxed and mot'd cars for £500. It just shows how times have changed. Interestingly I also came across the advert for the white car that came to Peterborough, then still left hand drive, part restored, very low mileage, one of a pair for £2000 with lots of spares.

Speaking of cars for sale, I have been offered 5 cars recently in need of various stages of repairs and restoration. One is a one owner car with some work done, lots still left to do but it comes with new wings and a raft of spares. Another has been in storage since the 1980's. Yet another is a one owner car that was restored in the 1990's and has been in storage for the last four years. Two more that are quite rough and may be only donor cars by the sound of things. If you would like to know more details about any of these cars please get in touch, for obvious reasons details will only be forwarded on to responsible prospective owners.

I hope there is lots of interesting things for you to see in this newsletter, many thanks to those of you who contributed, please keep your articles coming. I am looking to get a few technical items in here now that the show season has come to an end. Winter is a good time to catch up on all those little jobs that need doing; I certainly have quite a list of jobs to do on both of my cars.

Happy 3-Litreing! Kind regards *Neil*

Suspension Self Levelling Pumps explained



Self levelling pumps (pictured above) on our cars are an often overlooked; and sometimes abused unit. They are a very robust and reliable unit but do suffer from certain regular failures; that said these failures can, and are quite often caused by abuse at some time in the life of the pump. Almost without exception when the system leaks or misbehaves, or the pump fails the drive belt is taken off and the car is left without its self levelling system. This is a shame because the car will quite often need this system to sit at the correct trim height. It is a very useful system and an asset to the car. The main reason for this is because as the rear displacers age they are less able to maintain the height of the car on their own. They seem to let the height drop about an inch and then stay there which is interesting and baffling at the same time. One reason the cars ride with such comfort is because the displacers are so compliant. This is also the reason the self levelling system was employed in the first place, to maintain such a comfortable ride the suspension is quite compliant and soft; the downside being any weight loading on the rear causes the rear end to drop disproportionately to the load. Some of this disproportionate movement is caused by the leverage of the suspension arm, this being a ratio of about 25 to 1.

In a nutshell what all that means is you cannot have a nice comfy ride and expect it to take loads of weight without the car dropping at the back.

It is urban myth that after starting the engine the car will stay at whatever the rear height was sitting at when you loaded it. The system is designed to keep the rear end at the correct trim height with up to 140 lbs of weight in the boot, more weight means the rear will drop pro-rata with the extra loading applied. If the car is loaded within these parameters, and then stays low after starting the engine, it simply means the system isn't working correctly.

The pumps are reasonably easy to repair by anyone with a reasonable mechanical aptitude. To give you an idea of what they look like in pieces here is a picture of a stripped down one.

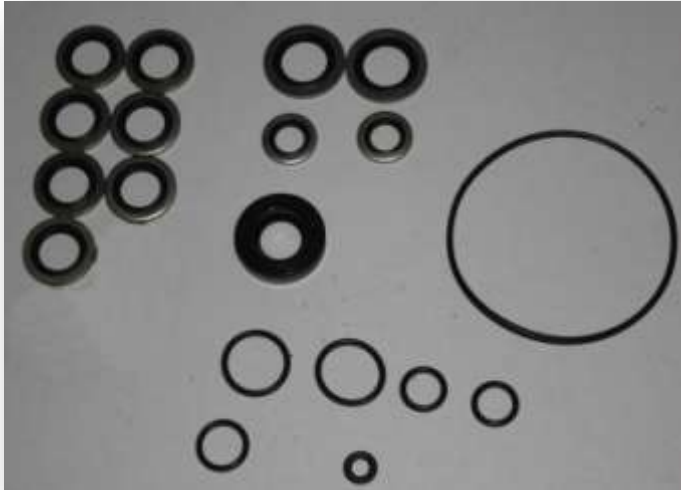


It is basically a tiny oil pump, on the left of the picture you can see one of the pump gears, three of the bearing blocks are above it to the right, the second pump gear is still on the drive shaft and sitting in the fourth bearing block to their right. The pressure valve system is at the top in the centre, the "figure of eight" seals top left, and of course the pump body are the two casings at the bottom. BMC recommended Armstrong 1709 fluid for this system, a long since obsolete oil, it is basically a hydraulic jack oil. I did do lots of research many years ago and managed to find a man who was involved in the specification of the oil, he told me to use a decent 20/50 engine oil and it would work perfectly well. I am pleased to say after many years of following his advice he was right.

I do have some Armstrong fluid in the workshop for nostalgia's sake though.

The main problems I see with these pumps are;

1. Worn bearing blocks caused by either over-tightened drive belts or lack of lubrication.
2. Hardened and leaking pipe seals and/or shaft seals.
3. Stripped threads in the body caused by over-tightening of the banjo bolts.
4. People putting Hydrolastic fluid in them, this is of course quite catastrophic!



I have now put together seal kits for these pumps, these do include all the special sealing washers as well as the seals that you will need if you fancy doing your own refurbishment, the figure of eight seals normally survive well, they are currently unavailable but I am looking at getting them made if the demand is there. Kits are £18.

If the threads in the body are stripped this will need specialised machining to insert a "helicoil", I do have the facilities to do this operation if required. I am able to supply reconditioned self levelling pumps on an exchange basis, or if you prefer I can recondition your old pump.



Here is the pump that was shown stripped down after having been repaired, and having new seals fitted, it's now all ready for a few more years of faithful service.

Buyer beware. (Don't buy a car without looking at it!)

I am frequently asked about the various 3-Litres that come up for sale on various websites and auction sites. Some cars I know of, some I don't, I think the recent dramatic price rise of our cars has seen some cars which have previously been hidden away for some time becoming viable in terms of cost of restoration versus resale value. I seem to have come across the vast majority of them at some point though so it's always worth giving me a ring. My advice will always be to go and have a look yourself if possible, if you cannot go and see the car or are not sure what to look at I strongly advise a competent person goes and takes a look.

A bit of background about me before I waffle on. My job of work is to examine cars (amongst other duties) before, and occasionally after people have bought them and compile condition, technical and legal reports on their condition. I specialise in exotic and classic cars when required, as well as more mundane cars, primarily in the South East but long distance travel for some specialised cars is sometimes required. I even flew out to Guernsey once to do an Aston Martin, it's a hard life! As part of this work and in my hobby with Austin 3-Litres, a few interesting things have come about recently which are worth sharing with you, and hopefully help avoid some problems and stress when looking at a car with the view to buying it.

Legal title

This may sound daft but please ensure the person selling the car has legal title to sell it. The V5 Document is **NOT** proof of ownership even if it has the "owners" name and address on it! It does state on the V5 in large letters it is not proof of ownership. DVLA lost 15000 of the things a few years ago and stolen ones are still out there, this is why the red topped ones are now being issued.

By way of example, one of my cars was owned by the Son of the man who bought it new; he bought it from his father, paid for it, and had a V5 document, keys and the entire history file. The car was removed by another family member and after much pestering to DVLA said family member managed to obtain a V5 document. So there we have a car sitting in someone's garage with the correct address and name on the V5, and they do not legally own it! Four years of expensive legal wrangling eventually sorted out rightful ownership and the car was duly returned to its rightful owner. My advice would be to ask to see a receipt for when the vendor bought the car, if this is not possible look for some history of service or repair work on the car from as far back as is possible, check invoice dates against when the vendor acquired the car and make sure the dates and recorded mileages make sensible reading. For those with smart phones there is a free "App" called "My Car Check." It is a free App and supplies basic free information about the car such as what it is and when it was registered amongst other things. It gives a good cross reference to the information on the V5 document.

Condition. (Now for the tricky bit)

Most people look at a full or nice long mot and assume a car is in a roadworthy and in an acceptable condition; sadly this is not always the case. A few points to consider about an mot test;

1. It is a visual inspection only, no dismantling of the car is allowed.
2. Any items that cannot be seen cannot be commented on. Yes the brake pads could be pretty much on the metal and if they cannot be viewed the car will not fail the test.
3. Structural areas are called “prescribed areas.” These are only concerned with locations where steering, suspension, brake components and seat and seat belts etc are fixed. Each location must have no penetrative rust within 30cm of its fixing in all directions. Any areas that are not in a prescribed area can have as many holes as they like! The exception to prescribed area rust is lamp fixings, the lamp fixings can have rust holes in them as long as the lamps are secure and work. Amazingly the picture below was taken on a car that had recently passed its mot. Somebody has made a very crude bracket to try and stop the lamps from moving about, not quite what you could call a satisfactory repair! This car has now been repaired properly.



I would always strongly advise that any car you are thinking of buying is viewed before purchase, either in person or by somebody who is competent to look at the cars condition and correctly assess it. Cars always look better in photos than they do up close; I have even seen pictures enhanced to cover faults as well. There is a buyer's guide on our website which I know some people have found beneficial when looking at a car with the view to buying it. I have included in that guide all the difficult areas of a 3-litre but the principal is the same for any car. If you go to look at a car or have seen one advertised please get in touch if you are not sure of something. I am always available for advice.

The picture below is just to give you an idea of how unscupulous some people can be. It is actually a six year old Vauxhall Corsa, a man had bought it from a Garage for his Daughter. The car was made up of 4 doner cars, the biggest section of which was approximately a quarter of another car which had been welded in to the right front, bady welded too! The box in the top right is the main chassis section, the bracket in the centre of the photo holds the main frontal crash beam to the chassis rail, or it would if the chassis was not over an inch out of line! The main crash beam could be moved about by hand due to most of its fixings being missing.



So the moral of the story is, please be careful when buying a car, take someone along as “another pair of eyes” if you can. Don't assume an mot is proof of a cars good condition, it is a basic roadworthiness check for the day the car was inspected only, VOSA will examine corrosion complaints up to 3 months after the certificate was issued, most other things they tend not to get too involved with as the car may have been altered since the test.

Doug Smith changes his dashboard, and other jobs.

Neil

Well done for the website that really is good. I don't know how you get the time but it's well worth it.

I also liked the article on the distributor 'mapping'. Very technical but I do wonder how my car runs so well without it. Main problem out here at the moment is overheating which may of course be related to timing. My son is heading here soon with a timing light so we will look at that soon.

Here are some pic's of when I stripped out my old dashboard and put in my new one about two years ago. I did not know about the colour coding of the wood that you had mentioned on one of your letters but that is good to know for the future. There is bit of a mismatch of colour between the door capping's and the dash which were renewed at different times but really I don't mind. They both look fabulous and are not peeling off due to rain ingress (less rain in France!) like they were in UK. The old dash was very faded and will be eventually sent for refurbishment soon. I might mount it in my bedroom!



The main thing to watch out for is the care you must take in dismantling, to keep all the wee screws, brackets and instrument fixings too. Obvious but easy to lose a difficult to replace fixing as they are all pretty 'old'. Then of course replacing your finished wood. I found I had to place each separate piece in bit by bit which was not easy.

There was no way that one man could replace a wholly assembled dashboard without completely removing the front wiring loom, front seats, windscreen etc! It is now clear why BMC went out of business. It looks as though these cars were individually hand built and the dash woodwork, with its complicated glued and shaped wooden fixing brackets are testimony to the old fashioned 'cabinet maker' practices used.



To get a wee screwdriver behind each panel *in situ* and be able to turn it sufficiently is another skill learned over the years on Austin 3 Litres. I shouldn't complain though. Many is the time I have cursed modern cars with their press-fit plastic fastenings which more often than not break instead of releasing. At least we can dismantle the dashboard completely for refurbishment. Try that on a modern car today. Not a chance.

Anyway here is the main exercise in pictures just for your interest. You will be glad to know the exposed front speakers (not standard) that I added are housed more appropriately.

Regards Doug

A small 3-Litre gathering somewhere in deepest Cambridgeshire



Proposed facebook page

I did wonder about having a facebook page for us, hence asking you all on your thoughts about having such a thing. My thoughts about this were that I really just wanted as many ways as we can to keep in touch and spread the word as it were. I was genuinely amazed at the strong feelings on the subject, of the replies I had the “NO” outweighed “YES” by almost four to one. From the replies I received, three members said they would like one to the eleven who said no. Some valid points were raised, as follows; “It would dilute our forum,” “It may be a way for banger racers to look for cars,” “It would lead to confusion with the Oztin fan club page,” being a few of the replies. Some other replies were far more directly against. As the club is run for the members, at this stage I have shelved the plans for this idea; we can always take a look later on if we feel things change. As I have said on numerous occasions it is your club, and it will be run for the majorities feelings.

For the sake of clarity, our owners club is not at all connected to the “Oztin fan club” facebook page, I know a few of our club members are signed up to that page, and do post messages there, including myself. I think most people would think it a fair observation to say that the racing scene is quite strong in there, but they are a good bunch and will help out with parts as and where they can. There are a good many in there who actively seek to preserve the cars too. I have also been asked about what the term “Oztin” means, it is a banger racers slang name for an Austin 3-Litre.

Spares bit

This has been rather active of late to say the least. Displacers on any Hydrolastic suspension equipped car will always at some point in the future become a problem, to that end we have decided to attack this “Achilles heel” of the cars head on. We are quietly confident we can come to a good solution with this problem, but not the complete solution we were hoping for. This will be revealed in the next section. Speaking of displacers who saw the new front one on ebay? It sold for £317! Absolutely crazy money for a unit which could burst as soon as it gets pressurised, it may be unused but it’s still 45 years old, please ignore the 1989 parts label that was stuck on the box, that’s when it was delivered to a dealer, it was old even then!

Front displacers; we are all in debt to member Jim Robertson who has supplied Ian Downes and Kevin Morton with a used front displacer and a mounting housing. Ian is exploring the possibility of getting the rubber parts on our suspension components remanufactured into the existing metal cases. This is a very ambitious project that is in its infancy at the moment. The Moulton family are keen to help, member Alexander Boucke had spoken to Dr Alex Moulton before he passed away about doing this. Indeed Dr Moulton had succeeded in repairing an Austin 1100 unit by sectioning it, renewing the rubber parts and making a clamping device to secure the halves back together. We also have a contact in Dunlop who is keen to help us. The first problem to overcome is how the displacers were actually built; once this area was understood, we can look at if they are possible to repair. It is also vital to understand the operating principals within the unit.

The units are made; it would seem, by curving a flat plate into a tube shape which is then seam welded together. The top rubber area is then formed, following this the internal valve assembly is fitted, then the lower rubber area is formed, the unit is then rolled together around the valve assembly which crimps everything into place. The machine used to do this part of the process must have been a giant rolling machine, this is long since melted down we would assume so sadly we have to look for another solution.

The first stage was to dissect the displacer, this is how Ian worked out how the unit was made. The following picture shows the inside of the unit after being cut in half, this view is effectively looking up from the underside of the unit into the cavity where the valve assembly sits.

I think it is fair to say that for all of us involved in this project, the view inside the unit was far from what we expected, it does differ from the original drawings too.



The most common failure of these units is for the top rubber section to burst in the area at the top of where the valve assembly sits. Ian has cut a strip out of the side of this unit and found the rubber shown here to be entirely filling this area. It is also very firmly attached to the housing; this effectively makes its removal sadly all but impossible.



The picture on the left is the valve assembly, this sits in the hollow area of the rubber as shown in the picture above. In the background you can see the rolled section of outer casing which was cut away to expose and release the valve assembly.

What we have found out is a mixed bag of news really.

1. If the hose fails they can be renewed fairly easily.
2. If the lower rubber section fails, the unit cannot be repaired.
3. If the upper; and most common failure site fails, we are confident we may be able to affect a repair. Talks are currently underway with Dunlop to see if we can have a pouring rubber to effectively add another layer to the top area of the displacer from the outside.

The new compound will of course have to adhere to the steel casing and to the existing rubber. We will have rather a challenge on our hands to get to this stage but it is looking very feasible.

So; the good news really is the most common failure (upper area bursting) and the second most common failure (the hose bursting) should be repairable. The only failed part we cannot overcome at this moment in time would appear to be the lower rubber section. The picture below shows the reason this displacer failed, this is the lower rubber section which as you can see has burst.



Steering rack seal kits; This project has progressed very well. I have had the main seals remade in nitrile rubber, this product is so much better for this application than the original rubber type of seal. It is also more forgiving in a worn rack, let's face it most will have wear to the rack bar by now. It is also much longer lasting. Kits are £30. I have yet to source the column seal, remanufacture has high tooling costs so at the moment we will have to re-use these. I am working on it though!

Self level pump seal kits; As seen in this issue these kits are now available, I have also invested in a helicoil kit to renew the threads in the body if required. The figure of eight seals normally survive well so these will have to be reused for the time being, if there is demand we will look at getting them remade. I can now do an exchange service on these pumps if you would prefer that. The seal kit comes with a full set of banjo washers and are £18.

Self levelling valves; These have become pretty much obsolete now as a new item, the left one was never an easy one to source even in the 1980's. I have managed to get hold of a leaking and faulty one, (Thanks Richard) and I am currently exploring ways to repair these units, more on that in the next newsletter.

Exhaust tailpipes; These are relatively simple to do, I need a pattern to copy though so it looks like CGU's tailpipe will be sent off during the winter months to act as said pattern and a copy will be then be kept for future orders.

Workshop manuals; I have been collecting these for a time as and when they appear and now have excellent stocks of them. Prices vary on condition and type but generally start at around £10, they are all genuine BMC factory items. Recently we have managed to find a way to get the manual converted to a PDF form, hopefully this will be available soon.

For our newer members, remade parts available through the club include rear radius arm bushes, choke cables, engine by pass hoses, and exhaust systems. Good quality new drive shaft boots are available and a good many consumable spares too such as brake pads, radiator hoses, belts etc. Owner's club tee shirts are available. The following companies will also give you a discount on the following services. Carole Nash give a 10% discount on insurance policies to club members, they are also very in tune with the cars values. Haynes Publishing will give us 15% discount on all orders and free second class postage. Orders can only be made by telephone to get this discount and cannot be placed online. To qualify for the discount just let them know you are a member of the Austin 3-Litre owners club.

<http://www.haynes.co.uk/> Opie Oils will give us a 10% discount on orders of oils.

To get the discount members need to choose our club from the list of clubs and then register with them. The direct link for club members to register is

<https://www.opieoils.co.uk/createaccount-short.aspx>

Once registered you will then be able to use your club discount code: **A3LOC**

Cars For Sale

Some cars have recently been offered to the club and our help has been sought in finding decent homes for them. Conditions of these do vary but all are saveable cars. These cars will only be offered to people who are prepared to put in the work and save them for obvious reasons. Initially contact Neil if you are interested in any of these cars.

The car pictured below is in Derbyshire, it has been in a garage in storage since the 1980's and of course needs re-commissioning/restoration. It had a new fuel tank, new sills new front valence and new doors in the 1980's. The owner is in the process of getting it running at the time of going to press. £1000 for this one if you are interested.



The car below is a rather large project; the car is in Scotland. Some work has been carried out as you can see. The car is a one owner car; it has been off the road for some time. It has done 90,000 miles but comes with a 20,000 mile engine but this has a punctured sump. The car does come with a pair of new old stock front wings a new grille and some other new parts and lots of used parts.



This car was restored by a club member from the days of the old owners club. It is a one owner car and underwent extensive restoration which was finished in 2000, it has covered low mileage since and has been garage stored for six years following the passing away of its owner. There are lots of mechanical spares with the car. The photo was taken on the last day the car was used on the road, this was for the owners Son's wedding. The family has a lot of sentimental attachment to this car, I have promised to help find a safe and secure home for it. If you are interested initially contact Neil for further details. The car is in Skipton, Yorkshire and will require the normal sort of re-commissioning you would expect from a car after having been in storage .



Progress on MCE 202G

Well I have promised an update on how this car is progressing, and I am pleased to say I have made some. The self levelling pump as shown being rebuilt in this newsletter was for this car, and I am pleased to say it is working very well. I wanted to use this as a test unit to make sure the seal kits were satisfactory. This car does sit at a very nice height on its displacers so I had to disconnect the self level valves to test its function. It is unusual to see a car sitting at its correct height without some input from the self levelling system, the picture below shows her at her resting height. New wheel cylinders have now arrived. I bought several as a job lot, these are correct 3-Litre ones and not the Austin 1800 ones everyone on e-bay seems to think are the same cylinder. I have brake shoes and brake pads in stock so that is easy stuff. I am also going to fit a new brake master cylinder for safety and common sense reasons. I am starting the restoration with the welding, starting with the right side as this is the only area with any real repairs of any significance needed. This car is so much easier in terms of work required than what CGU 473H needed. I have now also decided to tidy up the areas of bodywork which let the car down slightly; this will be done after the mechanical and welding jobs are completed.



The front valance as we know is always a bit of a weak point and can also be a challenging repair. It is therefore rather nice to see no holes in this one, the rust is only of a surface nature and by the time you read this it will have been treated to stop any further deterioration. (And the grass will be cut!)



Club Logo

I have been asked about having a club logo, I have been using the picture here for some time. This was drawn and donated to the club by Samantha J Barnes-Evans when Barry Gilleland ran the club in the early 1990's. I have added the script under it, what do you think? I can get some stickers made if you like the look of it so please let me know your views.



Austin 3-Litre Owners Club