MEWSLETTER 103

November - December 2012

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The Register caters for all the under 1 litre Reliant 4-wheeled vehicles plus all of their derivatives: Foxes, Rebels, Tempests, Salamanders, Ciphers, Jimps, Asquiths, Vantiques and all other specials including the Liege……

The Reliant Kitten Register

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Kitten alternative parts list: **Situation vacant**. Contact the Editor to volunteer.

Fox alternative parts list contact: Duncan Bradford, 52 St. Phillips Road, Norwich, NR2 3BN.
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Our Mutual Aid Spares scheme is run for us by Phil Hallam 4, Greenhead Holding, Stevenston, Ayrshire KA20 4JX

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Mewsletter pictures – should be sent to John Pearce at Toddbury Farm, Slapton Road, Lt Billington, Beds. LU7 9BP
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The Register is a member of the FBHVC, which monitors UK & EU legislation and lobbies on our behalf to protect our freedom to use vehicles of all ages on the roads. Readers are invited to show their own support of this worthy cause by becoming members in their own right. Contact the editor for details.

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Web page: http://www.kitreg.org.uk *or have a look at* http://www.reliantkitten.co.uk

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Issue 103

Ahh, I finally got there! Having believed this was 95% complete before I went south almost 4 weeks ago, it has turned into a mad rush after Moira proof read it hours before she flew to Tenerife for two weeks last Friday *(December 2nd)*

There are close to 90 things (depends what you count as a task – I mean "Send out Christmas Mags" – is that one task or eight? take it to the printers / print the labels / **print your renewal notice** – **hint hint!** / address and stamp the envelopes / collect mag from printers / pack envelopes / post the envelopes – you get the idea!) I would love to get done before she returns – if I get half way through the list I'll be impressed. So far I am 25% of the way through the time, and 30% of the way through the tasks – but they are not all the same size, and I'm beginning to tire already!

Have a great time over the festive break.

Welcome to our bumper Christmas edition. There are many thoughts I wish to share with you, and, depending on available time, I fully intend to do so. However my imminent departure to the NEC for the Classic Car and Motorbike Show is dominant in my mind at this time, Phil Hallam is displaying his beautifully restored, by his own hand, Rebel saloon on the ROC stand at the event, and the car needs to be there from Thursday till Sunday, so we will be away for the best part of a week.

Also at the forefront of my mind is my wish that this be with you in good time – the new printer has promised great things on production time, but I have no wish to rely too heavily on promises.

As a result I had been hoping to have this edition at the printer before I head south, but that is looking increasingly unlikely, and I have been neglecting other areas in order to get ahead – compromise strikes again!

Brief thoughts relate to the Federation, and my, the need to find someone to delegate the task of providing a regular report for inclusion within these pages regarding their work – could you do that? The level of specialist stock parts to tie our limited spares Fund up in. I ordered a reduced number of front dampers a couple of months ago, about a year's consumption, or so I thought, only to sell the lot the following month. You really can't predict the turnover of parts at all. An imminent price rise on these is not really helping me to decide how many more to order. Given the dwindling number of our wee cars still in use I am fearful of being left with too much stock. Some things have a longer shelf life than others. Just when does new stock become what I see referred to as NOS, New old stock?

We must not lose sight of Malcolm's offer to help co-ordinate get togethers at a variety of Car Club events, and while this may not be the right time of year, you can contact him with your thoughts on rkrshowpostbox@gmail.com or telephone on :- 01948 840896

I will only say this once (in this edition) - It's annual subscription time again. The relevant personalised form should be enclosed. If you are one of our five year folk please return the form with the car details section marked up if you would be so good. I should have applied an appropriate sticker to the form to confirm that I am aware of your status.

Time to catch up! Ed.

New to our ranks since last time are :-

921 John Topman from Worthing with a 1976 Kitten Saloon

922 Kenneth Davies from Aberdare with a 1983 Jimp

923 Paul Stabler from Leicester with a 1984 Fox

924 Liege car club's new editor, Mag exchange

925 Joe Collier from Roslington with a 1966 Rebel saloon

926 Meinholf Greve with a 1977 Kitten estate DL (which is for sale)

927 Mike Fox from Biggleswade with a 1974 Rebel saloon

928 Gordon Preen from Worcester with a 1981 Kitten estate

929 John Noton from Birkenhead with a 1984 Fox

A warm welcome to you one and all.

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Classic Car and Bike Show - November 2011 at the NEC

After much planning and deliberating, Wednesday the 9th of November arrived, as I'm sure it would had we planned nothing at all! A quick shower before breakfast and we loaded the final few things into the car and I was off to the bakers for fresh soft rolls and 7 pies. (My trips to England are measured in numbers of pies, (these are large, apple, rhubarb, or fruit) usually it is in double figures, but this one was different!)

My plan had been to depart Renfrew about 8:30 so as to be early arriving at Phil's in Stevenston, but I had not risen early enough to achieve that, and in the event did not depart Renfrew until 8:48. The mileage then was 160,086.

I arrived at Phil's at 9:36 having completely failed to have a realistic view of current rush hour traffic, a lesson learned!

The offer of a coffee was welcomed, if a little unwise due to the time! We left in convoy at 10:10. Phil led the way in the Rebel and we were soon cruising happily on the A76 which had very light traffic, and was a

great road to the borders. We did not stop until Carlisle, where, to my frustration, Tesco's Cafe was closed for refurbishment! After a break Phil topped the Rebel's tank up and we were off down the M6.

We called in for a coffee at the Box residence – thank you John - at Burton in Kendal just before 3:00pm, Stable Cottage is the birthplace of the Tempest, at one point I had intended that we would have a Tempest on the stand at the NEC, but sadly my communication skills are not as good as I like to think. We borrowed John's computer to book a room for the night near Preston, a Swallow Hotel as it happens, which was within a few miles of one of the places I needed to visit, which was good.

The room was a very reasonable £39 for b&b for the two of us, but we chose to have our evening meal there, and it was not such a good deal! Win some, lose some.

Thursday morning then and, after an excellent breakfast, we headed a few miles down the road to the Butterworth residence in Hoghton where I was to collect a couple of bits for Richard Plaxton's Volvo. That took a bit longer than planned as Tom, realising that we had an interest in old cars offered to show us his. Well, the first up-and-over door that he opened gave access to a fairly new building which only housed 3 vehicles, but had room for a fourth. Not very garage like mind you with no bench or shelves, and all plasterboarded out and with fancy ceiling lights. This he told us was the showroom! At the door under a dust sheet was an MG TF, behind it an MGA, and beside that a Jeep. O.K., I wondered, where is the workshop? Well, it was behind us, an integral part of the house, there we found another MG or two, an Austin 10 (which is for sale if you are interested) and an assortment of projects – so much for a quick stop!

Having duly feasted our eyes we headed back to the M6 and points south. A brief stop at Keel services and we drove on to the NEC. I have to say the signposting could be better, but we got there and parked the Rebel on the ROC stand where it was to stay till Sunday evening.

Off then to find our home for the next 4 nights, the Long Shoot hotel at Nuneaton, right next to the A5, and only a few miles north of the M6. An excellent choice, with a good carvery.

Friday saw us having breakfast at Tesco's at the Coventry Arena where I topped up with fuel, and then on to the NEC for the day. The lighting in the hall is not great, and as a result the camera flash was needed for every one of the 300 or so pictures I took, which took its toll of the battery! I must say I was very impressed by the total silence for a minute at 11:00am. It was very moving, and of course entirely appropriate.

We had been advised that the Friday was the quietest day of the weekend, and so it proved. I had elected to accept an invitation for a meal at Thurlaston just south of Rugby, so we set off there after having had our fill of cars and accessories. I was very lucky in that I met 3 of the 5 people I had hoped to see there that day.

The quality of cars on display was truly excellent as was the variety. I can't remember when I last saw a Gordon Keeble in the flesh, though I was disappointed not to see any Warwick or Peerless presence.

We enjoyed a lovely meal at Thurlaston, and the chat went on till after 11:00pm.

Saturday morning saw us off to the Gittus residence in Norton Cannes, and while Keith took Phil to see his smallholding, I nipped up to Rugeley to grab a bumper, complete with grill and spotlights, for son-in-law's Vauxhall. Brunch then courtesy of Glen, followed by a master class in how to modify a Reliant inlet manifold without a milling machine! Thanks Keith.

Off then to points east and Brixworth, just north of Northampton, where Linda Parrot caught me out by giving me our Christmas card – oh that I had been so organised! Her husband, another Keith as it happens, had a spare Reliant engine and gearbox which were surplus to requirements from his Kitten owning days (It was Keith that I bought "the wee red car" from all those years ago), and as I knew that the other Keith had an empty engine and gearbox test rig – well, the solution was obvious!

Fortunately the engine was in bits, and so not too heavy to carry down from the loft to my car!

Back to the Long Shoot carvery for our evening meal and ready ourselves for a busy day at the NEC on the Sunday.

We decided to have brunch at Tesco and fell foul of their Cafe's opening hours which meant it was midday before we arrived on site.

The show was as busy as we had expected, so we did not move about as much as we had on the Friday, but did re-visit the Jowett stand as well as the Federation's presence, and watched Mike Brewer and mechanic Edd China of Wheeler Dealers fame complete – with a lot of help! – the build of the Triumph Spitfire they were undertaking at the show.

They joined us later for a photo shoot on the Reliant stand – they had previously rebuilt the Bond Bug we had on display there.

An early night then ahead of our 06:30 departure on Monday to head home, via Norton Canes, Preston (two stops) Burton in Kendal and Carlisle – where in the event not only was the Cafe closed for refurbishment, but now the filling station too!

In all I covered some 1040 miles at an average speed of 44 MPH and an average fuel consumption of 52 MPG. The Rebel did 648 miles and managed a similar number of miles to the gallon.

We gathered many happy memories during the trip, and while I only managed to introduce Phil to half the people I had hoped to, my original plans were far too ambitious, and it was great to achieve what we did.

Both cars performed well, and I only gained a pound in weight!

All in all a great trip, memories are indeed made of such occasions, my thanks to all those who made it possible.

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The Hollingworth Kitten Saga part 3

Let the frustration begin.

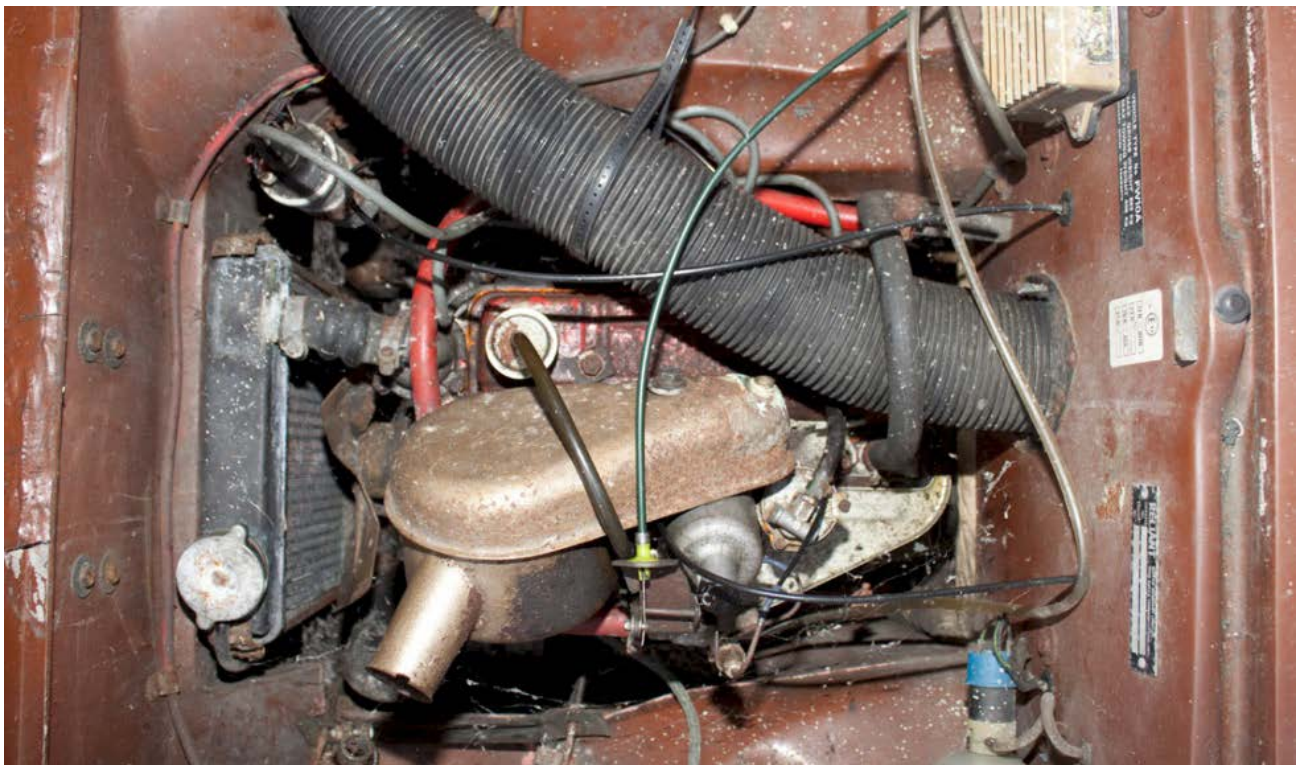

Figure 2 : Now you see it …

Figure 3 : Now you don't …

I got the engine out, simple and painless apart from the grovelling on the back to remove the propshaft – which idiot thinks up a nut and bolt arrangement that is designed to be tight and yet can only be got at with an open ended spanner, or not in the case of the gearbox end.

It took me an entire day to get the water pump off, started as the nice guy, bit of heat, bit of oil, rubber mallet, block of wood and big hammer, it's not going anywhere. We need more heat I think, so I trot out and get myself a nice blowtorch MAPP gas and hit the pump with 1600°C not quite the result I expected as the pump remained stuck fast. This damn thing is laughing at me so I hit it real hard from behind with a large 5lb lump hammer and it moved so I hit it again, it took a few swings but it came off, destroyed the dipstick tube in the process – damn. I seriously doubt the pump is serviceable now either, 1,600 degrees of heat has probably roasted the seals big time. Sad really because it is a 4 bolt pump pulley and I believe that these cannot be obtained now, so I'll be stuck with a nasty horrid plastic thing – like hell, I'll go electric first.

On stripping the engine bottom end I was disappointed to find the centre main in a poor condition – the bearing that sits in the removable cap was yellow across its entire surface and number three big end is scored, the front pulley end of the crank has also been abused at some point showing a few dings and bruises under where the pulley sits, all this despite only60,000 miles and meticulous maintenance by the previous owner. More stuff for the parts wanted list.

Note to self, and anyone else smart enough to pay attention, if you plan to restore a Kitten or other Reliant that has stood for an extended period, be prepared for some major disappointments, they are inevitable, go into the project with pessimism rather than optimism and you won't get disappointed.

The attention now moves to the head. I managed to remove head stud after head stud, with only three remaining surely the head will come off now, right? - Wrong! No amount of brute force worked, doing way too much damage to other things, something will have to be sacrificed, The wedges and sledgehammer are starting to look like the primary assault tools but I must resist the urge. The cylinder head was therefore chosen for sacrifice as I am determined to save the block, if only to preserve the engine number.

I drilled down the side of the studs as far as possible on the outer edge then removed the remainder as far down as I dared with a Dremel creating a slot from the top of the head almost to the block, after all I know this can be fixed, I've seen it done, not by me, I don't possess the skills, but it can be done.

I was disappointed to find that the weeks of heating / oiling / acid eroding hadn't got anywhere near the lower 2 inches or so of the studs, dry as a bone as evidenced by the clouds of red dust aka rust of which there were clearly copious amounts. I had been wasting my time completely, all the bubbling and other good signs were just tricks played on me by this engine. I was even more disappointed when despite my pressure relief efforts, including some good solid direct hits from a cold chisel and lump hammer on the stud's, that the damned head still wouldn't budge. That is when brutal mode engaged, the 'I have had enough' molecule was triggered, Mr Neanderthal came to visit, the head took some major direct hits under the thermostat housing from a very, very large hammer, result!!, the head is off but still fought me up every millimetre of the three remaining studs.

I guess this would be a good placed to make the point that Alan Shaw has a yet to be defeated cylinder head removal tool which can be borrowed – the only problem is that in its box it weight 11 kg, and so is costly to post. Ed.

The cylinder block face has corrosion on it, the liners do not sit right – the gap between the block face and top of the liners is all wrong, the pistons do not slide in the bores nicely, there is a tight spot on the rear most liner – corrosion effects perhaps? This car hates me.

Now I need to even add more parts to the search list, this is fast becoming a money monster that I may not be able to continue feeding.

Figure 4 : In my youth the Kitten seemed much larger …

Hours expended on car to date 70, cost so far (excluding car purchase) £824

Neil Kirkland - No. 916 from Cheshire (AKA Garfield)

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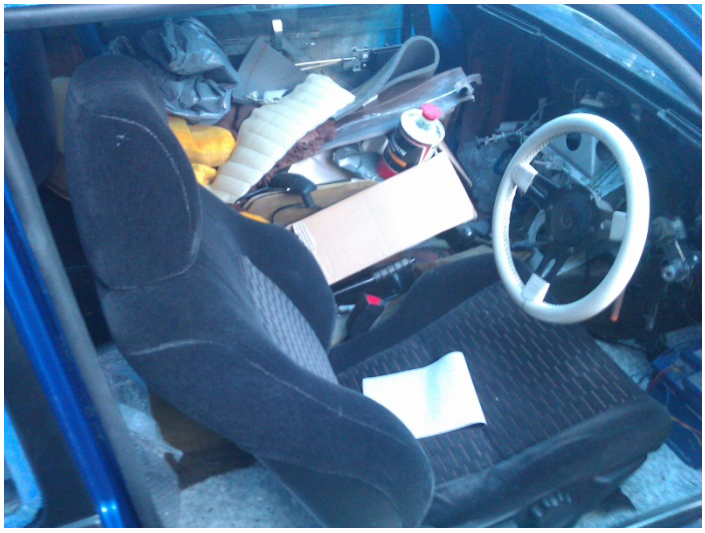
Hello Brian, 19/10/11

My name is Chris Cattermole, I would like to join the Reliant Kitten Register. I've had my kitten for about 9 months now (1977 DL estate NCM 571S) and am still working on her, I am hoping to get her on the road some time around April next year, I also have a Reliant Rialto estate and a BSA A65,so I'm kept busy!!.

The Kitten has had a few minor alterations, that some may frown upon, but feel that this is how Reliant should have improved this wonderful little car. I've included a few photos and look forward to hearing from you.
Kind Regards, Chris.

Above, Chris at work on the new front valence – below, it is from an MG!



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Tempest update – October 2011

Dave Smith kindly treated me to a tour of his premises during my trip south in September. We discussed the possibility of having his very tidy Tempest, one of 2 built in between John Box stopping production and, at that time, Steve Campbell taking the business over, at the ROC Club stand at the Classic Car and Motorbike Show in November. I knew that the organisers were short of good vehicles – they were focusing on our wonderful wee 4 wheelers this year – and I had already roped Phil Hallam in with his Rebel. Frustratingly that plan, to have Dave's Tempest on the stand, fell through because of bad communication between myself and the club organisers. You would think by this time I would be good at communicating effectively – a lesson learned.

As you will remember from our 100th edition, John Box was about to road test the disc brake and generally beefed up front suspension on his current project, the Raptor, some 18 years after designing them for the new uprated Fox that was stillborn when Bean gave up the idea in. Well, here it is, sporting its new hood, see for yourself :-

John had it on the road for a few months in the summer, now hibernating on SORN for the winter, it has covered a few hundred miles, and is looking good don't you think?

Photographed by Brian Marshall at Stable Cottage, September 2011

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LE LIEGE JOG

July 2011

A group of Liege owners were talking last autumn (2010) over a pint, 'what are we going to do next summer for a bit of an adventure?' and an End to End was mentioned. Nothing more was heard of the idea until after Christmas, when an e-mail arrived with a suggested route. I can resist everything except temptation, and Ann (my wife) was not going to let me out on my own for nine days, so the die was cast. My daughter thought her geriatric parents were mad, but when she got used to the idea she suggested we should try and raise some money for a local charity, so here is the outcome:

Five Liege Sports Cars met at the sign post at Land's End at tea time on Sunday 10th July 2011 and five Liege Sports Cars were at the sign post at John O'Groats at mid-day Friday 15th July, still 2011, as planned, without any untoward incident.

Statistics:- From Land's End we covered 1182 miles (with only ten Motorway miles!!!). 2,200miles for the round trip. We spent 5 days getting from Land's End to John O'Groats and 9 days in total, averaging 250 miles a day. Julia, my Liege, never missed a beat – she consumed about 1litre of oil, 1 litre of water (*I assume that was from the windscreen washer bottle, Ed!*) and 250 litres of petrol, averaging about 40 mpg.

The weather forecast as we left was for intermittent showers. We were incredibly lucky missing all the showers right up to John O'Groats and the sun shone for a large part of the outward journey. All five cars travelled the whole way 'topless'. The return journey was not quite so good, hood up for two out of the three days and Ann experienced some of the dubious pleasures of open top motoring in what can only be described as very showery conditions.

The other four cars came from various parts of the country to meet up at Hayle for a run in convoy down the North coast of Cornwall to Land's End. The Leisure Complex were very accommodating and allowed us access to the signpost, with the cars, for an official picture. We caused some trepidation for the photographer's assistant in manoeuvring the cars in a confined space with a drop over the cliffs behind. A successful result was obtained. Some of us then visited the Lizard – the most southerly point in the British Isles, so as to be able to claim North-South, as well as End to End.

The first full day was up to Newport in South Wales. The route started on the A30 then the Atlantic Highway (A38). The highlight of the day was the run along minor roads of the North Devon Coast through Hunter's Inn, Woody Bay and the Valley of the Rocks to Lynton and Lynmouth, and then across part of Exmoor and down Porlock Hill (the old AA Box still stands at the top of the hill). A couple of the cars were tempted into a circuit up the toll road, and one of the drivers commented that it was 'the best £2.50 worth of motoring I have had for a long time'. (He ended up with bald rear tyres before John O'Groats). The last leg of the day was Bridgwater, the Avon Gorge and the old Severn Bridge and on to Newport for our overnight stop.

Second Day Immediately out onto the minor roads up the Usk Valley through Abergavenny and Crickhowell. Ann and I lived here about 40 years ago so it brought back memories. Up between the Brecon Beacons and the Black Mountains to Builth Wells and Newtown with its Offa's Dyke centre. Magnificent scenery and practically no traffic until Wrexham where the roads got busier as we headed towards Birkenhead and the Mersey tunnel. The Mersey tunnel is just over 2 miles long and the last time we drove it was
50 years ago on a scooter. Liverpool was not as bad as expected but it has changed a bit in those 50 years. The long beach road through the dunes round Southport was much more relaxing and then a few more miles and our night stop to the North of Preston. We were joined for an hour in the evening by a local Liege owner and –of course his Liege

Third Day The Lake District. We met a bit of rush hour traffic getting through Lancaster but then much more civilized roads into the Lakes going as far west as Broughton-in-Furness before turning North and then East to tackle the Hardknott and Wrynose passes. Superb single track roads with 1:3 and 1:4 gradients (25 – 30 % in new money). Fantastic motoring and scenery with not too much traffic. Down to Ambleside and up a minor road hill aptly called 'the Struggle' to go over the top to the Kirkstone pass and down to Ullswater for a lunch break overlooking the lake. A little congestion getting through Penrith and Carlisle slowed us down, so we did 7miles of motorway to Gretna Green and then main road to Dumfries and north to Kilmarnock for another overnight stay.

Brian Marshall was waiting in the car park to greet us as we drove in. Some picture taking and some chat which was continued over a very pleasant supper, with Brian agreeing to meet us again in the morning for the first hour of our run. I know you've seen the picture before, but I can now Identify the suspects!

They are, from the left front Mark Endley, Roger Goldthorpe, Mark Worsfold (our leader) and Charlie his son, Ginny Endley. From the right front – Mike Oakins, Colin Marshall, Cathy Goldthorpe, Maggie Marshall and Ann Oakins. Who suggested Brian (your Editor and Registrar) was not steady enough on his feet to take a picture?

Fourth Day Scotland – from the Lowlands to the Highlands. An early start, with Brian present in his Citroen. The geography changed rapidly as we drove down to the Firth of Clyde coast with its magnificent scenery. We followed the Clyde for 25 miles to the Gourock ferry, which we took to avoid the Clyde Bridge and the traffic around Glasgow. The ferry was just about to sail so there was no time to say a proper farewell to Brian. There were spectacular views as we crossed the Clyde and then headed northwards from Dunoon through beautiful mountainous countryside to assemble again at the top of the old 'Rest and Be Thankful'. This was built as a military road in 1748 and was replaced by the modern main road in the early 1940s. The old road continues to be used for hill climbs, but as the surface is breaking up it is now only opened on special occasions. We were very fortunate to be allowed two runs each, made more interesting by the loose gravel on the last hairpin, but not timed so not too hair-raising!! It is very difficult to describe the rest of that day – unrivalled motoring through exceptional Scottish mountain scenery with very little traffic. We travelled independently – so everyone set their own pace. We stopped for a snack lunch on the shores of Loch Lomond watching the tourist boats; then set off north again up through the Glen Coe, along the shores of Loch Leven and Loch Linnhe to Fort William. Up the Great Glen to Spean Bridge with its Commando Memorial. Fort Augusta and a right turn off the main road onto a B road following the South Eastern side of Loch Ness – unfortunately we did not see the monster! Minor problems finding the Travelodge in Inverness, even some of our friends with sat. navs. had trouble...

Fifth Day We all had a new experience to start the day – breakfast in the adjacent Tesco Store, and for the first time we did not have to pack all our luggage. We were joined for breakfast by John Dillon and his Liege, which I believe is the only one permanently resident north of the border. Today was John O'Groats and back. More superb mountain and coastal scenery, across the Moray Firth, the Black Isle and the Cromarty Firth and then onto a B road over the hills to come down Struic Hill with tremendous views over the Dornach Firth. We found a second AA box as we joined the main road again and on up the coast through Helmsdale with its new memorial to the Highland Clearances and then inland for 20 odd miles on a very straight single track road upon a moorland plateau. We were getting a bit short of time so this narrow road proved quite interesting and we were the last of the group to arrive at John O'Groats just after 12.30 p.m.

Again we had to persuade the photographer that we could get five little cars by the sign post. We only had to dismantle a bit of his chain fencing...Then a glass of champagne in a plastic cup to celebrate.

As they say in the best tour brochures – afternoon at leisure. We stayed at John O'Groats for a lunch time snack and reflected on our achievement looking north over the Pentland Firth to the Orkneys and Scapa Flow. We had to visit Dunnet Head, the most Northerly point in the British Isles and on the way say 'hello' to the late Queen Mother, whose Castle of Mey is nearby. Then we decided to take the coast road back to Inverness, a mere 150 miles but unfortunately the weather changed just before we got back and we had our first taste of open top motoring in the rain this trip.

The Journey Back We all went our separate ways for the journey home. We had 750 miles to do and broke it up into three days. The adrenaline rush had subsided so this part of the trip was a bit more of an effort. Fortified with another Tesco breakfast we set off with the idea of keeping to the east of the big conurbations.

The first day was Highlands to Lowlands with varied scenery and the first couple of hours we managed without a hood. Then the showers became too persistent. South through the Cairngorms with the ski lifts and ski slopes looking a trifle neglected. Past Balmoral Castle and Braemar of Highland Games fame and headed towards Perth where we ran into very heavy thundery rain. Perth was flooded; we waded through water 9" deep, not that Julia minded, but the traffic ground to a halt. A bus driver told us he had never seen the like and said it would be at least a couple of hours before we could get through Perth. Another look at the map, a bit of back-tracking and a 20 miles detour got us round. After the delay we decided to stick to the M90 to try to make up some time so straight down to the Forth Road Bridge and round the Edinburgh Ring road. Then back on proper roads again heading for Walter Scott country (Dryburgh) and our night stop just outside Jedburgh.

Day two – very showery, hood up all day but some ventilation with the side screens out, but the scenery again was splendid. Initially through the Cheviot Hills and then Northumberland National Park, skirting the Kielder Forest, crossing Hadrian's Wall near Corbridge, on towards Bishop's Auckland before taking an interesting B road to miss Darlington. We had a break at Scotch Corner to refresh both Julia and ourselves. Catterick (well known to anyone ex-army) was by-passed and down to York, giving the centre a wide berth. Round the edge of Doncaster and down to the Leicester Ring road. This all sounds horrific but apart from a few pockets of traffic the driving was very easy with no hold-ups. From Leicester we picked up the old Roman Fosse Way, which runs straight as a die past Coventry, Leamington Spa and Stratford-on-Avon down to Cirencester and Chippenham. We stopped near Stratford for the night.

A coffee break was taken at Lacock Abbey the next morning and the weather was temporarily better so the hood came off. Ann later considered this was the wrong decision. Now we were on familiar territory, Frome, Shepton Mallet, and Glastonbury, but I missed the turning for Taunton (I blame the heavy rain!!) and we ended up going through Bridgewater, which was quite fortunate as we got some shelter for a snack lunch in the service area. Then the old familiar route down the A 38, round the edge of Taunton, the old Exeter by-pass, on to the expressway – and home.

It was a most amazing journey on some of the best driving roads and through some of the most fantastic scenery in the country, which can only be experienced to the full in an open car. The weather was incredibly kind; what are the chances of driving the length of the country in five days without rain? We have also been very fortunate with our fundraising as we have collected over £3,000 for our local Hospice, and still have Gift Aid to add. Other members of the group collected for their own charities. I feel that this run endorses what we all know, that Reliant running gear, if it is well maintained, is second to none, and is added proof that Peter Davis designed an excellent and practical little sports car.

Ann & Mike Oakins. No. 292 - Modbury (Devon)

What can I say? Thank you for that account Mike. It brings back memories of when I did that run in the Kitten with the ROC as part of their 40th anniversary celebrations, and that was back in May of 1998! Though in that instance we were expected to return to England and meet up at their National Rally after reaching John O'Groat's, which added nigh on a thousand miles to my journey! From memory it was a 3,014 mile trip in 10 days.

It was really great to be able to meet everyone and share a meal with you on your way through – memories are truly made of such occasions. Brian

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Readers Letters

I thought I'd slip in some more of Lyn's witty words *:-*

Lawyers should never ask a Mississippi grandma a question if they aren't prepared for the answer!

In a trial, a Southern small-town prosecuting attorney called his first witness, a grandmotherly, elderly woman to the stand. He approached her and asked, 'Mrs. Jones, do you know me?' She responded, 'Why, yes, I do know you, Mr. Williams. I've known you since you were a boy, and frankly, you've been a big disappointment to me. You lie, you cheat on your wife, and you manipulate people and talk about them behind their backs. You think you're a big shot when you haven't the brains to realize you'll never amount to anything more than a two-bit paper pusher. Yes, I know you.'

The lawyer was stunned. Not knowing what else to do, he pointed across the room and asked, 'Mrs. Jones, do you know the defense attorney?'

She again replied, 'Why yes, I do. I've known Mr. Bradley since he was a youngster, too. He's lazy, bigoted, and he has a drinking problem. He can't build a normal relationship with anyone, and his law practice is one of the worst in the entire state. Not to mention he cheated on his wife with three different women. One of them was your wife. Yes, I know him.'

The defense attorney nearly died.

The judge asked both counselors to approach the bench and, in a very quiet voice, said, 'If either of you idiots asks her if she knows me, I'll send you both to the electric chair.'

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Paul Stabler was good enough to distract me with some history of his exploits, not Reliant related, but I know you are interested in bikes too :-

Paul had asked a technical question, and I was explaining to him how difficult I find it to in some instances to get a handle on an individual's level of experience, and hence competence, for carrying out more involved procedures.

Hi Brian, I was in a research and development department early on in my career so I do know about complete and utter failure and having to scrap months of work and start all over again (subdued a lot!!).

I have a very good friend of the old school who was my mentor in those early years, and between us we developed and patented lots of unusual things for the Shoe industry (yes the shoe industry machines). That basic background gave us knowledge in mechanics, pneumatics, hydraulics, cooling, heating, electrics and in the latter days electronics.

I forgot to mention that I built (with the help and knowledge of the above) and own a special sunbeam S7/S8 The “MOTOBEAM”, plus I puchased an S7 that has been heavily modified by the late Fiddler Fred (he was a Millwright not a fiddler). I am in the sunbeam fellowship (a fellowship avoids all the red tape of today).

I do have other vehicles that I use whenever the mood takes me but I missed the Fox during its pre MoT lay up.

Can’t bore you any longer. Things don't have to rush. Things get done eventually. Things are things we do!!!

Best regards as always, Paul

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Reliant powered Roller!

Keith Gittus has a bit more grass to cut than most of our readers, and an interest in all things Reliant, so when the opportunity came up to combine these things, he jumped at it :-


LUCAS


ALLETT

Keith's new Reliant engine test bed – September 2011

Dear Brian, 3/10/11

My Fox van replaced a Kitten van 16¾ years ago, also I've owned my present Scimitar for 27 years, so I suppose I must like Reliants, and they are British.

On the 21st of last month I was down the road from you on my first visit to Govan, and was not greatly impressed as leaving the subway and walking down Helen Street (*about 3 miles from here, Ed!*), the rain became torrential and near horizontal. However the warm welcome and hospitality which I received at Kelvin Diesel was some compensation, and they told me that sometimes the sun does shine on Govan!

John Noton No. 929 - Birkenhead

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Dear Brian, 4/11/11

A belated thanks for your letter of the 5th Oct. Reading ML 101 was a revelation, I didn't realise that so many appreciate the smaller 4 wheel Reliants. Here on the Wirral, mine is the only Fox and I cannot remember when I last saw a Rebel or Kitten.

Also it is interesting to see that the Tempest project is in obviously enthusiastic hands.

About 10 years ago when Tempest Cars were based locally, perhaps because they thought I would convert my Fox, I had the opportunity to drive a Tempest with a power increase of about 35%, it was surprisingly sprightly and able, a real fun car. One of the kit car magazines described it as "with 80 – 100 BHP per ton", which is respectable for this genre of car, and in any case its raison de tere isn't to be a tarmac scorching sports car.

Westfield / Cateram 7 type cars powered by Kawasaki ZZR1100 and similar engines, in the right hands, are very able sprint / hillclimb cars.

However, to so power a Tempest would be to destroy its ethos, rather akin to converting a Tiger Moth to jet power.

Kind regards, John No. 929 - Birkenhead

Getting Technical

How the SU carburettor works – and how to help it do so.

PART TWO

SU Carburettors: What Can Go Wrong?

Although one of life's cardinal rules seems to be that if it can go wrong it will, SU carbs are pretty robust in most ways. They are dependent on their support systems being in good order and above all an observant eye kept on their weak points, if only for safety's sake.

The commonest flaw in the SU setup on the Reliant is experienced by most drivers: fuel vaporisation. On switching off a hot engine, the atmosphere around the carb gets hot enough to vaporise the fuel in the jet tube. This is shielded by a bright-metal coil which acts as a reflector against the heat and also as a heat sink to dissipate heat as the temperature reduces. However, it isn't very successful and if you want to run a hot engine again within a few minutes of switching off, at a service station, say, expect some bunny-hopping across the forecourt until fresh liquid fuel is drawn through from the float chamber. Try shielding the tube with wrappings of foil. It can work a treat.

Above all when looking for solutions to a particular problem, apply logic: suspect the most likely thing first; if you've run this thing well for ages the cause is unlikely to be a previous owner's misdemeanours; have you altered anything else recently that may have a bearing on the problem?
I once spent a whole weekend failing to get the thing running after replacing the hose from the tank. Finally I discovered I'd pulled off the pipe from the remote fuel overflow vessel to 'borrow' a bit from the end then shoved it back on a little too far, blocking the air bleed hole. The result was a vehicle that would barely start and only just coughed along on full choke. I'd written about this pitfall years earlier and totally forgotten – the simplest immobilisation device on a Reliant!

Support systems:

Fuel delivery:

SUs are designed for fuel delivery at 2-3psi. **On no account** replace the original pump with one of higher pressure. The Reliant pump is matched perfectly. Being mechanical, its delivery rate is varied by engine speed, so it matches demand closely.

Fuel hose or tubing has a life expectancy of 2 years, even with the BS code stamped on it.

Hose can be damaged by using incorrect clips.

Avoid overbraided hose: you cannot see when it is nearing the end of its life. It is far more sensible to renew with the correct hose annually.
It has been known for the brass inlet pipe to part company from the float-chamber lid. These can be pinned. At least check it!

The float chamber lid contains a needle valve and a float. When the float rises, with the rising fuel level, to a certain point, the valve shuts off the fuel. It is said these valves can stick open. In thirty years it hasn't happened to me, but nevertheless I replaced one with a 'Grose' valve, purporting to be less likely to jam, and within a week it had. Fortunately it flooded the engine to a stop [the increase in fuel level floods petrol out of the jet mouth] and I tapped the lid sharply. It has never jammed since, but the slightest scent of petrol has me offing the engine and upping the bonnet.

Fuel overflow or 'emission' device:

The law now requires that steps be taken to avoid excess fuel ending up on the road, or fuel/oil fumes being given off to atmosphere. To this end, on vehicles built after... oh, I can't remember, but it's late 1970s, the fuel overflow outlet from the carb is piped to a small chamber which takes any excess as the contents of the float chamber expand in a hot engine bay or the float needle valve sticks. A return pipe, with a 2mm vent hole, connects the chamber to an inlet stub on the side of the carb, beyond the venturi, and a hose from the oil filler cap is 'T'-ed in. In this way fumes from any spillage together with crankcase oil fumes are drawn into combustion. This means there is a small additional input of air via this stub, but its volume is small and predictable, so it doesn't normally upset the tuning of the carburettor as it is specifically allowed for. [Some people like to remove these devices for some reason, in which case the mixture will need enriching, and the carburettor will not be quite as responsive or predictable, but that is another story.]

If however there is any air leak – or in fact blockage - in any part of this set up, problems CAN arise as the engine runs on the 'enclosed breather' system. In fact removing the dipstick, for example, is a good test for such problems. A fit, correctly tuned engine will stutter and may stall at idle, on removal of the dipstick. If not, then look for leaks elsewhere or a poorly serviced carb, or ignition faults. Check for a good seal at the following places:

Any holed or cracked overflow-system hosing; Ill fitting or perished O-ring on the oil filler-cap; Ill-fitting dipstick. All these can allow air leaks enough to upset smooth idling at least. Check that the pinhole in the return pipe from the overflow chamber is not blocked – this will prevent the engine from starting or running properly.

Check that the hosing or the 'T'-piece is not blocked with oily sludge. This can happen with mayonnaise produced by a slight head-gasket leak, and the resulting crankcase pressure tends to blow oil spray from the

dipstick tube. It can blow out the stick, or partially so, resulting in uneven idle. The hose for this part of the setup is 8mm, but often the 6mm kind gets used, which can block much more easily.

Vacuum take-off:

On the opposite side from the emissions inlet stub is another smaller stub, the vacuum advance takeoff. This leads, via a thin tube, to the vacuum advance unit – that unsung and much misunderstood hero of the distributor. If this or either of its rubber fittings deteriorate cracks can let in enough air to upset the vacuum in the inlet manifold and hence the whole carburation process, especially at idle.

Other sources of potential air leaks:

Float chamber lid gasket; Loose overflow pipe stub; Wear in the spindle for the throttle butterfly can let in a small amount of air to upset this vacuum too, but it will only affect the mixture at idle speed. This is because at idle the vacuum created by the engine is comparatively high, but the mixture volume allowed through the throttle is very low, so any weakening is noticeable.

Taking on a vehicle with an unknown history it is quite likely that the basic mixture setting has been enriched to compensate over the years for various small air leaks affecting the idle, and may be enriched even more at the favourite wear-points on the needle. Finding and sorting the leaks will mean you can readjust the mixture to a leaner setting that gives better and more economical running throughout the range.

Working On The Carburettor Itself

years but overall they are much the same. Early ones will have only a fuel inlet pipe in the float chamber lid, later ones have an overflow pipe too. Different styles of inlet valve were fitted, and so on. Usually alternative parts are interchangeable.

On most vehicles there is an alloy heat exchanger fitted between the inlet manifold and the carburettor. This is served by two hoses: one runs from the front to the outer of two inlets on the pump. [The heater normally connects to the pump-inlet nearest to the centre of the pump]. The second hose either connects from the rear of the heat-exchanger to the back of the cylinder head, or from the front of the H.-E. to the thermostat housing area. The purpose of the heat exchanger is to even out the temperature of the carb. In cold conditions it heats the mixture, in hot conditions it dissipates excess heat. Running with it disconnected results in misfiring under heavy acceleration due to the close proximity of the exhaust manifold.

Removing the carburettor may be easier if the two half-inch nuts below the heat-exchanger are removed and the whole assembly taken off, though it may mean disconnecting the hoses. Otherwise the two 9/16 half-nuts are removed from the studs joining carb to heat-exchanger. In this case, access being a pain, an appropriate open-ender can be sawn short, and one side of its jaw sawn narrow. Then you'll have a special spanner to treasure forever, and removal will be so much simpler!

You will almost certainly need new gaskets, for both joints. These can easily be made from card, at least as temporary items, so don't panic.

Apart from air leaks any faults in the SU carburettor are almost certain to be down to something that an owner has done in ignorance, or failed to keep maintained, with one possible exception, as they are of such a robust design. To check and correct these faults it’s easiest to take one apart step by step, though complete destruction shouldn’t be necessary. Remove it from the vehicle before we start, and clean down the outside as best you can. If there is petrol in the float chamber expect this to pour out the jet when you move it about. If you have a dodgy frayed throttle cable it may be easier to remove the linkage from the carburettor [there are two types] than disturb the cable end. The choke cable is held in a rather fragile trunnion. Replace the trunnion on the cable so it doesn’t get lost, but only tighten it so far that it won’t slip.

Once clean, and with various plastic tubs to hold the bits, and an old towel on your lap, the first step is to remove the float chamber lid, which holds the inlet valve. Check that the three screws each have a spring washer, and that the gasket is undamaged. The lid holds the float and valve.

There are small differences in the models of HS2 fitted over the This is open in use until the fuel level raises the float high enough to block off the jet. In many this assembly is all plastic, and not adjustable. Older carbs have a

plastic float on a metal fork, ancient ones have a brass float and fork. If the carb has been overfilling, allowing petrol to flow out of the main jet [as opposed to overflowing out of the pipe] the float may have been wrongly adjusted by someone previously. On the older models therefore, held upside down, the float should rest 1/8" above the lid's lip [metal float] or 5/16" above the lip level [plastic float], and the arm can be bent to achieve this. All-plastic valves cannot be adjusted [or maladjusted, fortunately] and the float is angled differently anyway.

Clean out the sediment from the bowl as best you can. Any going down the outlet at the bottom will be dealt with later.

Next comes the vacuum chamber, bell chamber, whatever you call it. Before undoing anything else unscrew the black knurled knob, withdraw the piston damper [plunger] and drain out the damper oil.

We are now getting to the precision engineered bits. The damper rod should pull out easily, but be much more resistant to being refitted when oil is present. This is because it has a simple brass valve at the bottom by way of a brass collar which can slide up to a stop, or down allowing oil through. In use, when the piston tries to rise, through vacuum force, it pushes this collar up against the stop, forcing the damping oil to go past it, which slows down the rise. When it falls, the collar drops and allows much easier passage of the oil through the centre. So the action of the piston [and jet needle] is delayed when the throttle is opened, giving an over-rich mixture for a couple of seconds when acceleration is needed. If there is little oil in the damper, or the oil is too thin / hot, this damping may be insufficient and the engine will falter under initial acceleration because the piston lifts too quickly allowing too much air to weaken the mixture briefly.
The correct oil is about the viscosity of 2-stroke oil, and the damper tube [sometimes called the dashpot for some odd reason] should be filled to the lower lip visible inside.

The lower lip visible inside is in fact the top of the piston, or at least the top of its bearing tube. The piston and the vacuum bell chamber are a machined matched pair; for obvious reasons they need to operate smoothly as a unit:

Mark a reference across the join between the bottom of the bell chamber and the carburettor body so it can be replaced in the same position, and remove the two fixing screws. [As there is no gasket there are no washers]. Carefully lift away the chamber vertically, exposing the and spring [hopefully]. Explore the chamber, piston, jet needle, and you should see how the whole assembly works. You'll see that the piston can only fit one way around, and that it is a working fit inside the chamber, centred around a chromium central bearing and with a ridged outer piston wall that is a close fit to the chamber wall. This is not intended to be an interference fit because of friction. It is however of a known gap, and there is a way to measure its accuracy explained later. In the base of the piston are three features. The first and most obvious is the graded jet needle, held in place by a grub-screw through the side of the piston, in such a way that its stepped shoulder is exactly level with the lower face of the piston. Undoing the grubscrew should enable you to pull out the needle and examine it. [notice how the needle, collar and spring go together and remember!] Sometimes they get stuck and I have run one for ages that I've never been able to remove; it must be getting worn by now. It should help to tap it firmly inwards to break the seal, but on no account grip it with pliers and pull on it unless it is due for replacement anyway. The diameter at each station should be accurate to the ten-thousandth of an inch

If your eyes are much better than mine you may be able to make out the graded steps every eighth of an inch that reduce the diameter of the needle towards its tip. Probably not, BUT if you rotate it under a good light source you may well see that there is a shiny strip down one side. Almost all but the oldest needles used in HS2s are spring-loaded and kick off to one side, though they are relatively free to wiggle about in use without having to be exactly centred. The original solid needles used to need exact centring in the jet. As this was nigh impossible, the needle, and the jet, used to wear unpredictably in use. The self-centring nature of the swinging needle means that the needle will undoubtedly wear, but at a predictable rate, and without wearing the harder jet. The result is a needle that requires replacement at a recommended service interval of 20,000 miles [not that you'll ever see that in a handbook, but it was SU's recommendation]. Of course, if you slacken it and turn it a few degrees each year you will alter the wear pattern, but it will be harder to see how worn it is and it will in fact wear more quickly on a new edge. Just order a new one if you can see a shiny wear strip. Needle AEB is the one for the yellow-top economy engine, AAT for all other 850s [though the differences are almost negligible]. Fire pump engines use AAC, a needle giving the necessary richer mixture for the firepump's increased power output.

Rotating the needle is a good enough check that the needle is straight too, though if it runs fine and you haven't dropped it there's no reason why it should bend.

The other two features of the piston base are the nylon stop which allows a slight air gap beneath the piston for the engine starting mixture and the hole at the rear near the base. This is the hole down which the venturi effect sucks air from the chamber above the piston, whereupon the piston rises to replace it. As can be imagined the amount of lift per suck is pretty critical, which is why the piston and chamber are a matched pair, benefitting from the chamber being replaced facing the way it was. While the needle is removed to keep it safe, the following test can be done to check the fit, having carefully cleaned the piston and the chamber without using abrasives, especially flushing out and checking the damper tube and damper. Spray the central bearing with WD40, fit the piston in the chamber without the spring, add the damper and some oil. Block up the suction hole in the base of the piston with blu-tak or something; make sure you aren't over a hard surface and, having pushed the piston right up inside, time how long it takes to drop completely from the bell chamber. Because you have blocked the suction hole, as the piston drops air can only replace it by going up the outside production-tolerance gap between the piston and the chamber, at a known rate. It should take about 4 seconds every time. [3 - 5 is fairer]. If there is variation from this it is due to wear, damage, or a mismatched pair. Examination may show damage that can be rectified, or try swapping in another part which may be a better fit. A quicker drop means a weak mixture overall due to the vacuum being insufficient to lift the piston/needle to a rich enough station and vice versa, or a slow drop could be due to catching in some damaged area, giving erratic behaviour.

The spring which fits between the piston and the top of the chamber serves to introduce an element of adjustment as there are different strengths available. The HS2 carburettor is used in various engines up to just over a litre capacity, with varying performances. Varying spring rates is a method used to reduce and control the amount of lift by the piston in various conditions. Reliant engines use the weakest spring normally available [2.5 ounce]. They are colour-coded at one end, but I couldn't crack the code and anyway some aren't coloured. Increasing or reducing the weight of the spring is a black art, as under some conditions it can weaken or strengthen the mixture, or vice-versa, and must be done in collaboration with changes in needle profile to give predictable results. Broadly, it would only be worth doing on a fairly radically reworked engine giving a different performance profile from that of the Reliant engine in its usual applications. By the way, if you want to check for the correct spring, 2.5 ounce means that a 2.5 ounce weight will reduce it in length by an inch as far as I'm aware. It's up to you to find a way to do this, but I made a card tube slightly wider in diameter and an inch shorter than the spring, and lo! Such a weight, carefully sat on the top, compressed the spring to just the level of the top of the tube [whereas it didn't work for what I thought was a 4.5 ounce spring – the next step up.]

Once all is well refit the needle with the shoulder level to the piston base. That means the metal shoulder of the needle itself, not the plastic holder of the swinging needle. [Notice the lump on the top of this holder that enables the needle to wobble.]

Before refitting the piston and chamber explore the rest of the carburettor.

Probably the most important bit is the main jet and its tube:
I don't recommend dismantling this unless there is an obvious problem. If you do however, be aware that you will need a new neoprene gland and probably a bent pin. If you fit a new jet for any reason it should come with the gland, but you may still need the bent pin.

The jet itself slides up and down under control of the choke mechanism, to which it is attached by a screw and a flat steel lever arm or, more likely a bent rod of steel 'wire' that is fixed through the plastic moulded base of the jet by a Starlock-style washer. Good luck if you want to remove this without destroying it. The only reason to remove the jet is to replace it because it is so worn you cannot get an idling mixture weak enough to satisfy the MOT tester, even with a new needle. Older models with a fixed needle may need the jet re-centring as described later.

The jet should slide freely in its bearing tube and may need a drop of oil to help it. While you're there, a little oil on all the moving parts is a good idea, and should be part of a periodic service schedule.

The tube leading to the jet from the base of the float chamber is part of the jet assembly. Its point of attachment to the float chamber is a potential weak point:

The tube ends in a brass ferule that locates in the chamber base. Around the ferrule is a neoprene bush or gland, and behind this is a steel washer and a brass nut which is visible from the outside. In theory tightening the brass nut against the washer compresses the neoprene gland making it shorter and fatter thus sealing in the tube by clamping around the ferrule. In practice people tend to overtighten this nut, which distorts or even mangles the seal and leads to a potentially risky fuel leak. Whereupon someone tightens it even further… The end result is that the neoprene gets so mangled that it breaks up, and bits of it jam in the threads of the fitting so that when a new gland is fitted it cannot seal due to the bits of the old one fouling the thread. If there are signs of a leak here, obtain a new seal and washer [the washers tend to get lost or missed out]. Undo the nut and withdraw the old remains. Bend over the very end of a pin or needle and use it to clean out all the old neoprene from the threads and refit the tube having slid on a] the nut, b] the washer and c] the neoprene gland, and made sure the ferrule projects beyond the gland about 5mm, push it fully into the hole. Without cross-threading it, screw the nut home by hand, keeping up pressure on the tube into the hole until the gland is just met, then continue with a spanner until the gland is just sufficiently compressed to hold the tube firmly.

Disturbing the equilibrium of the carburettor is likely to have stirred up the sediment at the bottom of the float chamber and some may have entered the jet tube. One great thing about the jet on the SU is that it rarely suffers from blockage. The jet itself is 0.09” in diameter. Under full choke conditions and high speed, there is enough passage through the jet to clear any bits that might block a narrower space. Flushing through both ways using the extension tube on a can of WD40 should clean out anything that may cause problems, and this is even easier if or when the jet tube is removed from the float chamber. It is worth noting though that a carburettor which has not run for some time may suffer from deposits made by old fuel sitting around for ages inside, and this especially applies to fuel in tanks. It is an obvious ‘no brainer’ to cut the fuel supply line as it comes up from the pump and insert a cheap generic clear plastic fuel filter just so you can rest assured, as well as know that the pump is performing properly.

There is little else to point out on the carburettor which is not self-explanatory. Some have a lifting pin just below and to one side of the air intake, which lifts the piston exactly the right amount to test for correct idle mixture. However once the emmissions laws in the 1970s required carburettors to be ‘tamperproofed’ this was redundant and, as the slight extra air ingress interfered didn’t exactly help the venturi airflow, it was blocked off. Note the small vacuum take-off for the distributor, at the rear, just before and above the throttle spindle: this is at the optimum position for its purpose, but it is not in a good place for supplying a vacuum gauge. These need true manifold vacuum, not this near hybrid, and must be connected to a tapping in the manifold, ideally in the plenum or in a spacer gasket.

One final important point: you will probably need to readjust the slow running / throttle stop screw and the throttle-advance screw on the choke. These may have got settled against their springs and will benefit from removing and refitting with an extra washer under the head. Otherwise they may be ‘off-spring’ should they need backing off, and easily work loose. Needless to say put a drop of oil on anything that moves.

The carburettor should now be cleaned, lubricated, checked over, and understood a bit more sympathetically. Reassembly is straightforward, but check at each stage that everything is free to move as it should. Key to this is that once the vacuum chamber and piston are refitted, with oil in the ‘dashpot’, lifting the piston with a finger should be smooth but slow progress against the damping effect, and when released the piston should drop much more rapidly and the stop should hit the bridge with a solid ‘thunk’. Try this several times and investigate and eradicate any tendency to stick.

If you are servicing an older, fixed-needle carburettor the jet and needle will need setting up as follows:

Fix the needle accurately to the piston, ie brass needle's shoulder level with the alloy base of the piston. Fit the jet loosely, i.e. don't tighten the steel fixing nut. Fit the vacuum chamber and piston assembly and do the check to see that the piston and needle assembly falls smoothly. Carefully tighten the jet with the needle fully in and the jet at its highest position. Check the needle still drops completely and cleanly, with a 'tock' as it hits bottom. Any friction and the jet needs to be better centred around the needle. Once you are happy, adjust the jet to approximately the right starting height as explained.

And so, in a roundabout way, we have covered the fuel delivery, via the float valve and float chamber, to the jet. There is no point, as far as I can see, in separating the float chamber from the body, unless you are adapting something from another vehicle where it was held at a different angle. The relative positions of chamber and jet are such that when the chamber is full and the jet is fully dropped [ie under choke] the fuel level is still just below the level of the jet orifice, otherwise it would flood out of the jet under gravity, which is what happens when the valve fails. Likewise the test conditions used to decide the profile of needle required for your particular application allowed for the relative level of fuel in the float chamber among all the other parameters.

Once the correct idling mixture is achieved by the method described above and the engine is warm it should run well at all states. Once started, the piston should rise a little and stay there at idle; on acceleration the piston should rise more to meet demand, without any fluttering or uneven note.

If all the above points have been checked, but the engine still has running faults, it would be wise to suspect the electrical side of things. HOWEVER, I recently had problems that screamed 'weak mixture' at me, and over several weeks I changed everything, including eventually two whole carburettors and the inlet manifold. Then I discovered a crack in the exhaust manifold [though not before I'd replaced distributor [twice] coil [three times] and plugs]. I can't see how it caused the problem but changing it has restored my sanity. I also know that everything else is working fully now.

The SU, clever design though it is, is not complicated by any fussy technology and is not dependent on any fragile materials or components. It is a supremely crafted and highly adaptable most efficient piece of kit. The only thing that lets it down is that people who don't understand enough to work on it will inevitably blame what they've done on some mythical fault in the carburettor itself, and try to spread the blame like a smokescreen for their own ignorance instead of trying to understand what they have done wrongly. Such a design as has been in use with only minor improvements for the best part of a century, and had more than half the motoring designers in the world trying to find a way around the patents to copy it, it must beat your average carburettor.

J. L. D. Bradford 2010 – 2011 hidunc@ntlworld.com

Duncan, what can I say – the two small words, ***Thank you****, seem wholly inadequate, and I do seem to have over a third of a page to fill – but I'll let everyone off lightly.*

The ability to understand any device is not something that everyone has, though many do. The ability to write it down in language that virtually anyone can comprehend is another talent altogether. To find the two in the same individual however is quite rare. Well done, and thanks for taking the time to do it, and for sharing it with us. Ed.

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Bill Gates, I am told, gave a speech at a High School about eleven things they did not and will not be taught in school. He talked about how feel-good, politically correct teachings have created a generation of kids with no concept of reality, and how this concept has set them up for failure in the real world. Read on….

Rule 1 **:** Life is not fair - get used to it!

Rule 2 **:** The world doesn't care about your self-esteem. The world will expect you to accomplish something BEFORE you feel good about yourself.

Rule 3 **:** You will NOT make $60,000 a year right out of high school. You won't be a vice-president with a car phone, until you earn both.

Rule 4 **:** If you think your teacher is tough, wait till you get a boss.

Rule 5 **:** Flipping burgers is not beneath your dignity. Your Grandparents had a different word for burger flipping: They called it opportunity.

Rule 6 **:** If you mess up, it's not your parents' fault, so don't whine about your mistakes, learn from them.

Rule 7 **:** Before you were born, your parents weren't as boring as they are now. They got that way from paying your bills, cleaning your clothes and listening to you talk about how cool you thought you were: So before you save the rain forest from the parasites of your parent's generation, try delousing the closet in your own room.

Rule 8 **:** Your school may have done away with winners and losers, but life HAS NOT. In some schools, they have abolished failing grades and they'll give you as MANY TIMES AS YOU WANT to get the right answer. This doesn't bear the slightest resemblance to ANYTHING in real life.

Rule 9 **:** Life is not divided into semesters. You don't get summers off, and very few employers are interested in helping you FIND YOURSELF. Do that on your own time.

Rule 10 **:** Television is NOT real life. In real life people actually have to leave the coffee shop and go to jobs.

Rule 11 : Be nice to nerds. Chances are you'll end up working for one.

If you can read this... Thank a Teacher.

If you are reading this in English... Thank a Soldier!

And for life and everything else you have... Thank God!!

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Sales and Wants

Wanted for a Fox :- A pair of half shafts. Will buy a compete axle. Can collect. Contact Hugh Fowler oldbikeman@live.com

Wanted :- anyone with some spare Fox brake drums knocking about? I could do with a pair of good back ones. Regards, Les

Wanted :- source of good or new Fox rear brake backplates – contact the Editor - see below….

I know two people who are wanting them so, still on Foxes, as above, rear backplates – there is some confusion in my mind, and talking to a number of Fox and Kitten owners there is clearly a need to address this question.

Many Foxes were separated from their axles to build what could be termed “confusingly” named Rebel Racers. These were purpose built stock car type vehicles on a Ford popular based fibreglass body powered by the Reliant 850 engine. Sadly the builder had no qualms about destroying many of the Foxes he robbed of their axles, even more frustratingly he only used the crown wheel and pinions from them, so goodness knows how many perfectly good half shafts he scrapped! Anyway, backplates are the focus here. It depends to whom I speak, but there is a firmly held belief that while many Minis had ones with a 3 hole location, like Reliant three wheelers use, there were certain models which used a 4 hole location type, as used on the Fox (and Kitten?). There was as suggestion they might in fact be from the slightly larger BMC 1100 /1300 range of vehicle. It does not matter, what does matter is that we secure a source of these, preferably at a reasonable price, obviously of good quality.

So, be not your light under bushel’s hiding, if you know the answer, preferably with a part number and or supplier and or definitive year and model type, do share.

Meantime an approach has been made to have these manufactured, but that would be ridiculous if they are available! Talk to me please. Never mind forums and fancy ideas, what we need are the facts.

All the following ignores the possibility (hearsay, or did someone actually do it?) that it is easy to simply drill a 3 hole out to match the 4 holes we need? Never mind, you might be able and happy to do that, many are not. What is wanted is a part that simply bolts on, no modifications required.

Talk to me, though these pages if you will. Please. Ed.

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Epilogue

Listen, I'll let you off lightly this time. I try to avoid repetition of old articles too often within these pages, but after an enjoyable but busy trip to England I thought a little calm reflection would be no bad thing.

Don't forget to keep or get in touch with Malcolm regarding events :-

E-mail rkrshowpostbox@gmail.com Or alternatively at :- Berwyn, Heathwood Road, Higher Heath, Whitchurch, Shropshire, SY13 2HH

Malcolm Rush - Whitchurch - No. 352

Till next time, take care, *Brian*

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Desiderata

Go placidly amid the noise and haste, and remember what peace there may be in silence.

As far as possible, without surrender, be on good terms with all persons.

Speak your truth quietly and clearly; and listen to others, even to the dull and ignorant; they too have their story.

Avoid loud and aggressive persons; they are vexations to the spirit. If you compare yourself with others, you may become vain or bitter, for always there will be greater and lesser persons than yourself.

Enjoy your achievements as well as your plans. Keep interested in your own career, however humble, it's a real possession in the changing fortunes of time.

Exercise caution in your business affairs, for the world is full of trickery. But let this not blind you to what virtue there is; many persons strive for high ideals, and everywhere life is full of heroism.

Be yourself. Especially do not feign affection. Neither be cynical about love; for in the face of all aridity and disenchantment, it is as perennial as the grass.

Take kindly the counsel of the years, gracefully surrendering the things of youth.

Nurture strength of spirit to shield you in sudden misfortune. But do not distress yourself with dark imaginings. Many fears are born of fatigue and loneliness.

Beyond a wholesome discipline, be gentle with yourself. You are a child of the universe, no less than the trees and the stars; you have a right to be here. And whether or not it is clear to you, no doubt the universe is unfolding as it should. Therefore be at peace with God, whatever you conceive him to be. And whatever your labours and aspirations, in the noisy confusion of life, keep peace in your soul.

With all its sham, drudgery and broken dreams, it is still a beautiful world. Be cheerful. Strive to be happy.

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