

# RELIANT KITTEN REGISTER



**Mewsletter 118**

*May - June 2014*



*Touch of nepotism here, born I do assure you out of emergency rather than any other reason..... As Brian was about to send the magazine to the printers he realised that we (or rather I) didn't have a front cover ready to go with it! So, out with the camera and here, earlier than planned, is the Flying Jaffa, pretty much finished following a 2 year rolling restoration, and I am very pleased with it indeed. Still some minor snagging but the list is dwindling fast and will hopefully be completed by the time you see this!*

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**The Kitten Register caters for all the under 1 litre Reliant 4-wheeled vehicles - plus all of their derivatives: Fox, Rebel, Tempest, Salamander, Cipher, Jim, Asquith, Vantique, Liege and all other specials.**



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# Dinky Cars

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**SALES, SPARES, REPAIRS,  
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# I N D E X

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E & o e

Here we are again, the clocks have changed, the days are longer, and, not for the first time, thanks to plenty of input from others – to whom I am eternally grateful, this edition is shaping up nicely, two months ahead of schedule – what joy!

Over the past months I have become more aware of the fact that either I have too much on my plate, or at any rate am just not as able to achieve things as I once was. Trying to both accept the reality and adapt to it are challenges that I am finding difficult, but with help and wisdom from friends I think I am slowly getting there – not at all sure I want to be there, but getting there nonetheless.

Part of my analysis is trying to look at the things I do in a more objective manner, and the Register has come in for some scrutiny. It does take up a lot of time and is a big part of my life.

I see it as falling into a number of categories, most, if not all, of which make varying demands on time and resources. The Register itself, the database we maintain of the cars and their owners, is one, arguably the main thing. The Mewsletter, so aptly named by the late Dr. Bill Lonie, one of the faithful few who bought his Kitten new, and ran it for over a quarter of a century, in fact takes up quite a bit more time than looking after the Register, I have to admit to the detriment of the Register, which, though it has evolved and been modified over the years, dare I say improved. The improvements are more to do with the magazine than the cars, and that can't be healthy!

The last raft of changes allow me to see, on the same, pretty busy, screen, who is a five year subscriber, who takes the Mewsletter digitally (something I ought to push a lot more than I do!) and who is a trade or journalistic or Car Club magazine exchange type of person or business. Almost 10% of the mags go out to people or businesses who are not what I would necessarily call Reliant enthusiasts, but car or motoring enthusiasts or businesses who share an interest in the marque.

Then there are the spares, deciding which bits are truly getting difficult, and organising replacements or alternatives, or having old units refurbished. The foregoing funded, subsidised even to some extent from the luxury end of the market, the sale of our alloy rocker covers, but even more so by the donations our readers have made along with their subscriptions for the past couple of decades.

This is quite a responsibility, one shared by the few to look after the many. I believe that were it not for our spares scheme, there would be fewer Rebels, Kittens and Foxes on the road today, few as they now are. A belief which gives me great satisfaction, and lets me tick one box in my mental list of things I feel good about and am happy to have achieved.

Then there is the more difficult to quantify amount of time I spend talking to people, a very diverse and fascinating group of mainly wonderful people, who I have met, either in person, or on the telephone or electronically over the decades. A most enjoyable aspect of running the Register.

My life has been enriched immensely by the friends I have made and the people it has been my privilege to meet and get to know through my involvement with, and love, of these wonderful wee cars, over the past three decades.

Yes I know the Register will not even be a quarter of a century old for another couple of years, but I spent years avoiding setting it up in the first place, in the misguided belief that I could coax the first three custodians of the Rebel Register into widening their field of interest – was that a mistake – almost certainly – would I do it again, quite probably, though I would not be so patient next time! Hindsight is truly wonderful.

So, here we are, I find myself struggling a bit more than I can cope with. Organising a batch of the now no longer difficult to obtain Fox clutch cables recently, brought it home to me that I need to consider more delegation if I am not to get so bogged down that getting through each day becomes a bigger challenge than I can cope with.

I need to thank Joe Mason, James Holland and Keith Gittus for their help and advice on the Fox clutch cable front, Keith in particular for digging me out of the hole I had got myself into by not understanding the significant differences between the Fox and all other wee Reliants in regards to its clutch cables, and the failure of the (new to us) manufacturer, who actually had a part number for them, and used to make them for Reliant! to understand the subtleties. I feel I now know as much as anyone on the planet does about Fox clutch cables, more than most, though I am still not entirely certain if it was worth the effort. It all depends if owners or their maintenance / repair men would or could re-use the pop-riveted stiffened body mounting bracket (and its attached tube – and it is that tube that caused the problems!) or not. That in turn would depend to a large extent on how tight a fit the cable end is to said bracket, and not knowing that, we opted for the solution that assumed the old cable would not easily give up its close relationship with that fixed part with which it has no relative movement between throughout its working life.

I am sure reading that, which could well have come under the technical section, and I may well cover it in more detail there, you will have got a glimpse of some of my frustrations in recent times.

Anyway, as I was saying, running the Register breaks down into several parts or areas, which, thanks to writing this article, I can now confidently state is five in number, as outlined in the past couple of pages. Phew, I'm glad I understand better just why it takes up so much of my time – it really is not that I am a lazy good for nothing so and so, it really is a lot of work! Though I grant you I do not get through work nearly as quickly as I once did, which is a major part of the problem!

That problem, which has become pretty clear to me over the past couple of years is that the service people get, in spite of the delegation, which works really well, thanks Duncan, Graeme, Alan, Keith and Phil, for all your help over the years.

The simple fact is that It is over a year now since I have even been able to take the magazines to the Royal Mail for sending to you. I have, for many years past, had an understanding with our local office that rather than fill my local pillar box twice over, they loan me three of their sturdy boxes, I pack the mags tightly into them, and hand them directly over the counter at the sorting office, works well, but I can no longer carry even one box at a time these days, just collecting the empty ones is a real challenge since “they” put a new set of traffic lights right outside the sorting office public entrance where I used to be able to park – progress, honestly....

So, in summary, I need to do less, and either delegate more, or just cut back on what level of service we can offer.

I was impressed, blank cheque books notwithstanding, to discover a number of individuals who have brought virtually derelict Kittens (in one instance a car we knew about but lost touch with, in other instances cars we knew nothing about before), all great stuff, and holds hope for the future, back to life recently with no help from us whatever, so there are capable individuals out there. Yes of course I ask questions, like what did they use for the various rubber components, and I am still waiting to find two people with the same answer! When I do, I will share the information.

Right, it has been a while since I wittered on at such great length in the editorial, I hope it was not too boring.

There may even be a Brian's Diary in either this, or the next edition, which Keith encouraged me to get on with when I stopped over there in mid March. So you can blame him for that – it was a wonderful trip (I only fell twice, so not so much of a trip, more of a holiday really really!)

O.K., on with the show – oh hang on – I have run out of space – time to revert to the earlier size of mag and take a chance with the envelope thickness methinks! Here is a picture, sorry about the light, it was approaching dusk. Taken in Rugby this March, first time I have been in a kitten for a couple of years, how quickly one forgets what fun they are! Thanks for the hurl Matthew.



Oh, while I remember, Mark Cropper is looking for the best examples of Rebel saloon and van that could be available to put on the ROC stand at the NEC in November as part of the celebrations of 50 years since the launch of the Rebel. If you can help, or know someone who can, Mark can be contacted at :- [suey.thebark@btinternet.com](mailto:suey.thebark@btinternet.com)

Dear Brian,

12<sup>th</sup> February 2014

Responding to your invitation to contribute to a special Rebel feature edition, I am attaching my "Saga of a Reliant Rebel Estate" which was originally serialised in "Rebellion". Please feel free to edit it if you wish. I have also attached a couple of black & white photos of the Ford radiator and engine/gearbox installed in the Rebel chassis. That saga ended in 1998 but not a lot of progress in the intervening years - nevertheless I hope 2014 will see it back on the road with new front disc brakes.

I also attach a "mystery" colour picture of someone else's Rebel Estate taken many years ago when I was on holiday but can't remember where - perhaps your register will supply the answer.



It was great to hear that Terry Scott is still going strong, very best wishes, John Parker (Memb 0301)

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FKH 308L I know passed its first MOT in many years back in 2001 when it belonged to Andrew and Alison Scott of Boroughbridge.

Ed.



## **A Saga of a Reliant Rebel Estate - Episode 1**

(Reprinted from Rebellion No.8)

I spotted my Rebel Estate advertised in the local paper in 1979 and, after a short test drive, agreed a price of £800. My first problem came when, having paid over my money, I went to back it out of the drive and the gear lever jumped the gate in the gearbox. My first job, after towing it home and fixing the gearbox, was to Waxoyl the chassis so that it would not rust. 30,000 miles of largely trouble free motoring followed with no doubt typical problems on the way (the day the actuating rod fell out of the footbrake cylinder; the day it boiled when my wife had taken my aged aunt out for the day and they had to be "recovered" back home). I fitted a 6V coil with ballast resistor which improved starting and Michelin XZX radials which greatly improved the steering. If like me you find the interior door handles break rather easily, then the chrome handles from an old Morris Oxford or Cowley (Series II, III or IV) will solve the problem.

In July 1985 the knocking noise from the engine reached a point where it could not be driven. Faced with a large bill for engine (and gearbox) repairs, I postponed any decision by leaving the car in my mother's garage.

In February 1986 I bought an Escort Mk 2 Estate 1300 automatic. Both my wife and I liked the automatic box, but by October 1988 it had failed its MOT with terminal rust. Thus I had a Reliant with a dud engine and a Ford Escort with a dud body. The Escort was duly parked in my mother's drive and the idea born that perhaps the Escort's engine and gearbox might fit in the Rebel.

In 1989, after much measuring of dimensions of both cars, I concluded that there was a good chance that it could be done.

## **A Saga of a Reliant Rebel Estate - Episode 2**

(Reprinted from Rebellion No.12)

First off the radiator was removed then all the bits & pieces removed from the engine and after a bit of a struggle the gearbox mounting bolt was loosened. An A-frame was duly hired one weekend in August(1989) and with the help of a friend the engine & gearbox hoisted

out and consigned to the rear of the Ford Escort Estate. The existing radiator mounting brackets were cut off the chassis and the Escort radiator (with integral oil cooler) fitted - space was at a premium and in order to move the radiator as far forward as I wanted, parts of the glass fibre body were cut away. Also, clearance of the bonnet lock had to be allowed for. When I was happy with the final position, I designed a bracket to support both the radiator and a Kenlowe electric cooling fan as there was enough room forward of the radiator. This support bracket plus some extra brackets to attach the cooling fan were made up by a local metalworking firm in November. With the bracket clamped in position, the chassis was drilled and the bracket bolted to it.

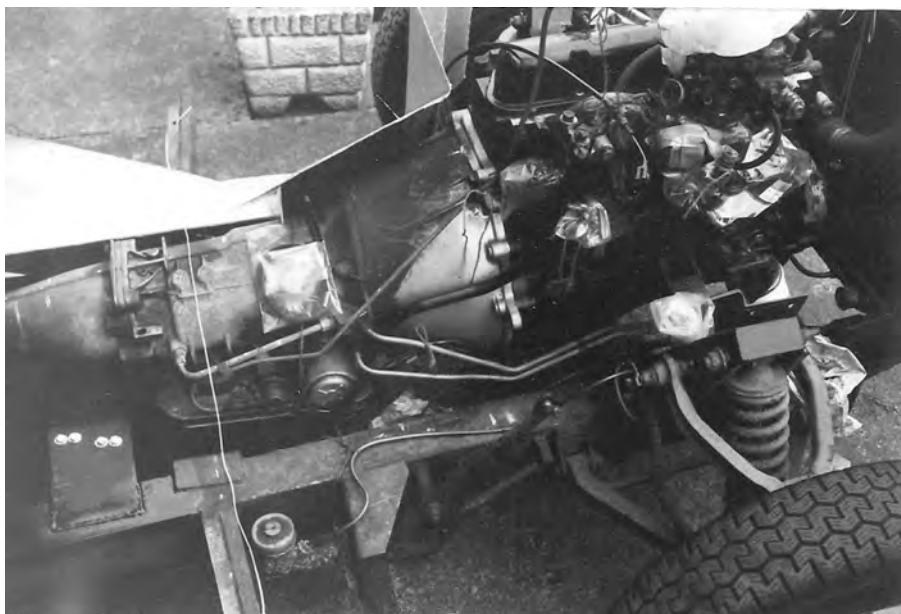
With the radiator established as a reference point, the next job was to get the body off - needless to say the chassis bolts were very rusty & considerable effort was needed to shift some of them. Before the body could be removed, wooden supports were built which would support the body on tea chests so that the chassis could be wheeled back underneath when not being worked on. With the very necessary help of my son and five of his friends from his football team the body removal was attempted - at first nothing happened but finally body & chassis parted and we staggered under the weight. With considerable difficulty we got the body in place and rested on its wooden supports.

My assumption that glass fibre bodies were light & easily moved had ignored the fact that I had not removed the doors, windows & seats all of which contribute significantly to the weight. In retrospect, a scaffolding frame with wheels (instead of tea chests) would have been ideal, enabling the body as well as the chassis to be moved out of the garage when needed.

### A Saga of a Reliant Rebel Estate - Episode 3 (Reprinted from Rebellion No.14)

With the body off the chassis, the next stage was to get the Ford Escort engine & automatic gearbox installed in the Rebel chassis. A ball joint puller was hired (12.89) to remove the Rebel steering link and after much measuring and crawling under the Escort, a set of wooden supports were created which would support the Escort engine & gearbox on the Rebel chassis. All the ancillaries were stripped from the Escort engine, labelled and stored in the tea chests. Next the Rebel chassis

was transported to my friendly garage where the brake pipes were rerouted to avoid the planned engine mountings (May 90). Next the Escort was towed to the garage where they removed the engine and gearbox as one lump and installed it on the supports I had provided. The chassis was transported back to my garage where final adjustments to the engine position were made. I fitted the alternator and starter to check that I did not have any clearance problems and horror of horrors, the starter fouled the chassis! Fortunately, the alternative Lucas starter has its solenoid in a different position and so that problem was solved. In October 90 I obtained an estimate from a local motor engineering firm for welding suitable engine & gearbox mounting brackets to the chassis. In November 90, the chassis was again transported away to have this work done. On its return, I measured up for a new prop-shaft and got this made up in January 91 by another local firm. Now I could start fitting bits back onto the chassis (petrol tank, wiring loom, a new petrol hose etc.)



#### A Saga of a Reliant Rebel Estate - Episode 4

1991 saw petrol tank, petrol pipe & wiring loom fitted back on chassis (including wires from the Escort for reversing lights). Around June, I used Jizer to clean down the scuttle & transmission tunnel area

forward of the handbrake as the body needed major surgery before it would fit over the Escort engine & gearbox. After much measuring, making up of moulds and laying up of glass fibre, I had a "new" transmission tunnel/scuttle which fitted around the new gearbox. The next stage was to pluck up courage and cut the old area out of the Rebel body. This done, the "new" section was fixed in place with metal plates and self-tapping screws. Following the advice in a good book called "How to Restore Fibreglass Bodywork" by Miles Wilkins (Osprey Publishing Ltd, 12-14 Long Acre, London WC2E 9LP 1984) which I got from my local library, the new section was laminated to the rest of the body. Fibreglass work continued through all of 1993, including strengthening the front wings where the wing mirrors fitted, mounting points for the auto gear shift as well as various repairs including a rear seat mounting point. A wooden jig was made up to indicate the line of the exhaust down pipe and this was made up locally and fitted very well. Autumn 1993 saw the start of rewiring in the bonnet area. I selected all the Escort wiring that I needed and merged it in with the existing Rebel loom adding a second fuse box on the passenger side in the process. Wires for the Kenlowe fan were also added.

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## A Saga of a Reliant Rebel Estate - Episode 5

By August 1994 , I had waxoyled the chassis and tied the insulation strip on with string. Because the Escort engine had its alternator and starter on the near side, a new battery tray was designed and built locally (9.94). My hopes of fitting the standard Escort silencer boxes came to nothing, so a specification for a single silencer that would fit between the outriggers was drawn up and manufactured in stainless steel by an Exeter firm (11.94). In early '95, my son & 5 friends were drafted in to lift the body back onto the chassis - it was still a struggle even with doors off & seats out. The job of connecting everything back together now began (Wiring, thermostat for Kenlowe fan, petrol pipe, battery tray - it fits very neatly on the ledge in the body moulding but the support bracket had to be fitted around the alternator) & gear shift lever. By September 1995, I was struggling with the throttle linkage - the Rebel throttle pedal was retained but the Escort throttle operating arm was brazed to the Rebel clamp to allow for adjustment. In February '96, I found that the heater box fouled the rocker cover so it had to be modified with a hacksaw and a few rivets before getting the core modified by Marstons. June '96 saw all necessary bits connected and after vain attempts to get engine to start, called in "Phonetune" who did no better but reported low compressions. I decided on a head overhaul by a local specialist (8.96) and did the decoke myself. This time it started and ran O.K. October '96 saw me fitting a period Trico screen washer. November 96 saw the arrival of my recalibrated speedo together with a new speedo cable made up by a firm in Tunbridge Wells. December '96 saw me trying the auto box - no luck, but dipstick did not show any fluid. 2.5 litres later the level was O.K. and the box worked. February '97 and the next job was to renew the LH bearing & seals in the rear axle as it had leaked onto the brakes. Managed to break a hub stud trying to pull it off, so took advice and removed the whole assembly and took it to local engineering firm - in the end they had to saw the back plate off to get enough access to press the hub off the half shaft. With the help of an old Regal hub, back plate etc from my local Reliant dealer (Eastmans of Eastville) I was able to put it all back together. March & April '97 saw a complete strip down of the brakes, renewing all seals and rear brake shoes. I managed to strip the thread on a master cylinder so got a friend to replace the brake pipe to make connecting easier. After bleeding, the brakes seemed O.K. I had to await the verdict of the M.O.T., all was well.

May '97 saw the parcel shelf strengthened as per Rebellion No.9 (April 1992). In June '97 got drivers' seat frame repaired, new webbing & replaced upholstery. Doors now replaced including new hinge & striker plate on drivers side. The bonnet needed surgery to stop it fouling the Ford air cleaner, and the bonnet stay was moved as well. July '97 and off for an M.O.T. - but failed on brake master cylinder(!). By September '97 a professionally rebuilt master cylinder had been fitted and this time the car passed its M.O.T. now (August '98) and it had been in regular use for nearly a year and covered 600 (almost) trouble free miles. There were still some jobs to do (like carpets, bumpers & tow bar, a bypass for the heater) but other priorities seem to get in the way!

John Parker from Bristol. No. 301

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As I am sure you will read elsewhere I have this edition virtually complete, two months ahead of schedule, it is the 29<sup>th</sup> of March now. I had decided yesterday to write a diary section of my recent trip south, and I will, but even slipping an extra A4 sheet into this edition, there will not be enough room, and I felt moved by Les Smith's email today (one of several responses to the membership renewal reminders I sent out earlier this week) that I decided to publish it, both to let you see the other side of the story, and to potentially dispel the myth that cleanliness is everything always! . I know both Bob and Les, great guys, and I was a bit surprised, but I think I now understand. I should have checked at the time, but I just don't have enough energy to do everything I should, besides as I'm sure I've said before, I would not want to be surrounded by yes men, opposing views on a situation can be very useful.

Remind me to tell you about Fox clutch cables one day!

Here are a few (small versions) of some of the pictures I was going to use in the now to be serialised Brian's diary article, taken in March 2014 on my trip south.



# 1976 Reliant Kitten DL OYD 212P

(named Clementine by a previous owner).

Dear Brian,

Friday March 7<sup>th</sup> 2014

I have written this article for the Reliant Owners Club magazine but thought you may be interested too.

After finishing the modifications to my MG TF I decided to get a second project to keep me occupied. I went through the options thinking maybe a Mini or a MG Midget, I thought a Kitten might be something different with the added bonus of having no rusty body panels.

In March 2012 I started looking out on eBay for a suitable Kitten, I soon found one and not too far away. It was advertised as having been stored for a few years but now the owner wanted to get rid, so a garage put it through an M.O.T., and agreed to sell it for them. The selling point for me was that they were offering delivery. They said the chassis was in good order and all the engine needed was a tune up. I put in a bid and by the end of the week I was the owner of a Kitten.

The first time I saw the car was when it arrived on the back of a truck, so I was a little unsure as to what I was getting. All in all the car looked reasonable for something that was 36 years old. There were some issues which seemed a little odd seeing as it had just been M.O.T'd, i.e. the windscreen wipers didn't work, the brake lights weren't connected, the fuel gauge didn't work and it was only running on 3 cylinders. I also noticed that the driver's door was only just about hanging on. The most worrying problem was that the oil pressure light would not go out, but fortunately, after replacing the pressure switch, that problem was resolved (I know these aren't all M.O.T issues). There was a poorly designed tow bar fitted that I quickly removed, and filled the hole in the valance that it went through. I noticed that the engine moved around a lot and found that the restrictor cups were missing, so I bought and fitted some.

I did a compression test and found cylinder 4 was running on 30 psi meaning that the piston rings had been damaged when they started the engine after storage. I had the bottom end rebuilt including a re-bore giving more c.c. Whilst the engine was out I had the clutch release

bearing replaced. The core plug in the cylinder head also had to be replaced as it was leaking. I later found that the gearbox output oil seal was leaking but I managed to replace it on the car.

Now the engine was mechanically sound I started to tune it, after setting the tappets and the timing it still wasn't running as well as I'd like so I stripped the carburettor and found it to be badly worn. After replacing it with a second hand but hardly used unit, I also treated it to a new drip tray / exhaust shield and fitted a pancake air filter. The electronic ignition system needed rewiring and after doing this, the engine runs well, and starts easily every time.

I then turned my attention to the chassis cleaning and prodding with a screwdriver. After I found all the holes I had them welded with extra thick steel so they won't be a problem again. With the help of a friend I managed to repair the driver's door by devising a method to distribute the load from the hinges more evenly across the door structure

The electrical system had a few problems which was good as this is my favourite area of work. I replaced all of the suspect wires and switches then added the new circuits to improve the spec of the car. These included a stereo using parts from the same era as the car, driving lights, rear fog light, reversing light, side repeaters, lights on warning buzzer, telescopic aerial, cigar socket for the SatNav, a clock with a separate fused power feed direct to the battery so as when the battery isolator is activated it keeps time, a sniper security system, new high/low tone horns, a rev counter and a thermostatically controlled radiator cooling fan (removing the mechanical fan makes setting the dynamic timing a lot safer). When I investigated the fuel gauge problem I found the sender unit to be at fault so I removed the tank and replaced the sender with a new later type unit. The wipers needed a complete overhaul so after greasing the rack, replacing the commutator in the motor and repairing the park switch, the wipers now function correctly.

Whilst working in the interior I removed all of the old carpet then re-covered the floor and sides with modern automotive carpet. I also made a parcel shelf/spare wheel cover covered with the same carpet to keep the boot separate and have somewhere to mount the new old stock speakers. A leather gear stick gaiter and MGB gear knob helps to smarten things up.



The rear brakes needed attention so I replaced the shoes, cylinders and fluid pipes. Whilst I was working on the back axle I widened the track by 68mm so as the wheels sit flush with the sides of the body. This also improved the handling.

The latest phase of work was to repair all of the cracks on the body and then have a full 3 stage re-spray (barrier coat, primer and 2 pack top coat in a proper 1970's Orange). During the re-spray I had all of the window weather seals and door aperture seals replaced with new rubber, I also had new pressed aluminium number plates made and fitted, new reproduction Mini door mirrors and wiper arms. To complete the exterior I have retro fitted the rear door with wiper and washer as the door had been replaced in the past with a later Robin door without the wash/wipe, the hinges also had to be replaced as the old ones had been drilled through and looked awful. The door check mechanism was also missing so by finding one part and reproducing another this was replaced. To improve security I have removed the rear door handle, filled the hole and fabricated a handle to open the door from inside, this will later be operated via a cable from the driver's seat. Removing the plastic gutters, speed stripe and the hideous modern bee sting aerial someone fitted to the roof makes the car look a lot cleaner. I recently found some new old stock rear light clusters which completes the fresh look.

The next stage is to refit the chrome bumpers that I modified to fit after I saw that a Mini is the same width as the Kitten. I will also fit some reproduction classic leather bucket seats as the original Reliant seats don't hold you in in the corners. I am designing a central locking and immobiliser system which will interface with the alarm system and be activated by the remote. To make the immobiliser effective, I will replace the mechanical fuel pump with an electric one controlled by the alarm. I am going to convert the wiper motor to a 2 speed with a intermittent function. I am also looking into having a new roof lining made and replacing all of the interior vinyl work.

To improve safety I am planning to add an inertia switch to the fuel pump circuit, replace the seat belts with modern inertia reels. To add redundancy to the braking system I will fit the tandem cylinder from the later model and incorporate a fluid warning light by the use of a pressure differential switch.



In the future I will look at the possibility of fitting the manifolds and turbo from a MG Metro, as I have noticed a lot of similarities between the Reliant engine and the A series. I have also thought about modifying a prop shaft to incorporate an overdrive unit if there's room in the transmission tunnel. If these changes are possible, a 70 mph cruising speed may be achievable.

Whilst sourcing parts for the Kitten I have been very lucky to have won a few job lots on eBay and now have an extensive range of spares including the rare steering rack and lower ball joints so I should be able to keep my kitten going for a long time to come.

Matthew Hewitt from Rugby in Warwickshire. No. 987

# Brian's Diary – March 2014

## Part One

I might not bore you too much this time because I took some pictures, we will see how it goes.

The year began with me being very lethargic and having minimal energy, so much so that at one point I considered not going at all, but the thinking was that if I didn't go, I might never go again, and I could not face the prospect of that! So I made my plans, with lots of short journeys and plenty of easy days.

I always plan a trip with outlines, here is an abridged summary :-

**Trip South March 2014 - Tuesday 11<sup>th</sup> till Tuesday 18<sup>th</sup>**

**Car :- Honda Jazz**

Leave home 10:00am - Collect pies - a 14 pie trip.

Stop Carlisle, rest - meet John Graham. Break on A66.

Stop York rest - Spend the night with cousin Gavin & Ruth at Skirpenbeck, east of York.

**Wednesday 12<sup>th</sup>**

Breakfast with other cousin Stella & Charlie - Riccall

Visit Dennis, Mike, and John at Michaels of Selby, then call in on Alan Blacker – Kitten man in Hirst Courtney.

Collect new Springs from Rotherham, and then deliver them (all bar three pairs) to Graeme and Jane in Glossop.

Back over the lovely A638 ( I gather it is to be closed to traffic for the Tour de France cyclists to traverse!) to John & Denise's at Scoreby, near York (yes, more cousins, John, Gavin and Stella are brothers and sister). Drop off pair of 6 leaf Tandy springs to Carl at Pocklington.

## **Thursday 13<sup>th</sup>**

Collect rocker covers from the patternmakers at Doncaster - Then to Birmingham to collect Fox clutch cables . Then, hopefully meet up with another Kitten owner Matthew Hewitt at Rugby on my way to stay with Tom and Patience Wardley at Thurlaston.

## **Friday 14<sup>th</sup>**

John & Sue Pearce at Little Billington, admire the Jaffa, just back yesterday from Joe's with new discs a retrim and respray, very nice too. Lunch, and off on my way to my mum's cousin in Beaconsfield for the night.

## **Saturday 15<sup>th</sup>**

Call in on Kitten owner Meinolf Greve in Beaconsfield, then meet up with Simon Fitch at Keith Gittus' place in Burntwood. Drop off pair of Kitten springs, take top off Rebel gearbox for Simon to test on the Cipher, eat, then head with Keith to "CARS FOR LIFE" A talk by Mike Loasby in Cound Guildhall, A fascinating insight into Mike's career as a car designer, development engineer, test driver and Director of some of the world's most admired car manufacturers. Including reflections on his employment at Alvis, Coventry Climax, Aston Martin, Triumph Motor Company, Delorean and as a University Lecturer in vehicle design and manufacturing.

## **Sunday 16<sup>th</sup>**

Drop bracket off with Nick in Solihull, then to the ROC National Committee Meeting at Castle Bromwich Birmingham, then back to Keith's again

## **Monday 17<sup>th</sup>**

Time permitting, call in on Alan Waite (ex Kittavan owner) at Leek on my way for afternoon coffee at Stable Cottage (the old Tempest factory), Burton in Kendal, with John and Jackie Box.

Home in time for a late dinner.

So there you have it, that was the plan, I'll tell you what really happened next time!

Ed.

Hi Brian,

March 29<sup>th</sup> 2014

Sorry I did not let you know regarding my renewal of membership No. 378 I will not be renewing due to the fact I cannot see me getting another wee car !

I miss my Fox a lot as you are aware I had done more to it than any other vehicle I have owned, but time has become a premium now. Jimmy still rings me on a regular (6 monthly) basis so I still know it's going strong,

I was a bit upset when in the Mewsletter Bob from Oz was complaining that the starter I sent him was seized and insinuated he was sold a 'Pup', I almost put pen to paper but could not be bothered! Fact is he got a good deal (beat me down on price) wanted everything assembled & cleaned. All parts were from working vehicles & were working or moving freely when dispatched.

The problem I think was his insistence on cleaning the assembled engine, gearbox and ancillaries, hence Jizer, water and months in storage (conditions unknown) by his friends before dispatch to Oz took its toll, he would have been better having it all in as removed condition, all grease and oil covered.

I would not rip off anyone knowingly so that hurt quite a bit, still as I said, I could not be bothered.

I still have all the work I carried out on my Fox documented in PC files with pics and have those to aid the wonderful memories.

I wish you and the club all the best for the future, enjoy your holiday (what's a holiday?). I also like most members do appreciate your sterling work for the Register, and the help you have provided over the many years.

No more classics for me I am afraid, I now have a Suzuki Jimny... Turn the key, jump in & go.... what a boring "old git" I have now become..!

Les (Smith) from Ashford - No. 378, retiring.

~~~~~

## Reliant Engines

### 850cc

*The first section of an 850 engine number denotes year and month.*

A=Jan, B=Feb, C=Mar, D=Apr, E=May, F=Jun, G=July, H=August,  
J=September, K=October, L=November, M= December

6=1976, 7=1977, 8=1978, 9=1979, 0=1980, 1=1981, 2=1982, 3=1983,  
4=1984, 5=1985, 6=1986, 7=1987, 8=1988, 9=1989, 0=1990, 1=1991,  
2=1992, 3=1993, 4=1994, 5=1995, 6=1996, 7=1997, 8=1998, 9=1999,  
0=2000, 1=2001

*The second section is the engine size i.e. 85 = 850cc. (850 also used on some engines made in the '90's)*

The third section appears to be a consecutive numbering of engines. This helps decode the problem of the year letters repeating every decade....

Engines with the letter E appended to the numbers were the high compression economy engines.

Engines with a letter B after the number were cast by Barton Engineering. Also have Barton cast in to the block.

I've also found a useful list of principal engine changes for Regal, Rebel and Bond Bug.

### 600cc

87367 Distributor was lowered. (?)

88758 Gudgeon pins enlarged to 9/16" diameter.

91700 (c. Mar '66) Oil supply to rockers modified.

93860 Crank pulley bolt changed to 3/8" UNF.

101090 Three studs added to the side of the head/block.

107142, 700001 (around Nov '67) TW7B Full flow oil filter fitted. Also Solex changed for a 30IZ Zenith carburettor.

## 700cc

115915, 700491 (Jun/Aug '68) 700cc introduced. Distributor rotation now anti-clockwise. Electrics now negative earth.

117572 Water outlet branch changed

129628, 700904 Timing chain tensioner fitted.

136204, 700981 Water pump improved.

141460, 701041 Crankshaft sealing changed.

142300, 701052 Sealed crankcase ventilation introduced.

Six digit numbers beginning with the number 5 are Ant Engines.

Six digit numbers beginning with the number 7 are Rebel engines.

*The only other information I've found was in RKR Mewsletter No 36.*

Some engines are stamped with just an "8" in between, rather than "85", dating from around 1973 to August 1975,

An early engine number 5G/8/10014 appears in the Kitten column (as July 1975).

5J/85/25866, 5K/85/100226 - up to these engines' numbers, angled split big end caps were fitted.

The C70 stamped blocks are 700cc ones - no ribbing on the block side. Early 1970s probably.

Other stamps: (S) = special - Found on stationary (fire pumps, generators, jetskis etc.) &, unrelated I suspect, some early Regal 600cc engines.

(R) = reconditioned unit used by Reliant and Partsworld.

(@) = reconditioned unit used by Partsworld only.

*So far so good, and my thanks to John Pearce for quickly coming up with the above, based on what we had published previously on the subject, updated since with his own and other information.*

*Knowing all too well that my memory is far from perfect, I have come to realise that I am not alone, so I sent a copy of the above to John Box for comment, his reply was, as ever, comprehensive and*

*enlightening, though by his own admission restricted to his unique experience, and raises a question that Fox owners may be able to answer – please do, if you are one of them and can. J.S.B. says :-*

Engines supplied from 1987 to 1993 were in the number range Year / Month / 85/ 1081669 to 108264, not that many in a three year period, **Does the 108 denote Fox?**

From engine number 9L/85/87143, unleaded heads were fitted. This is a Beans built engine supplied by Reliant.

Subsequently engines with a number prefixed by “B” are supplied by Beans.

After the demise of Beans the /85/ Code is changed to /850/ (*was that a Jonathan Haynes instigated change?*)

The Birmal heads are best. The Barton heard take 3 bhp out of the engine due to poor porting. A new head was introduced around 1997 which is as good as the Birmal ones. It is identified by the number 14214 cast into it, and the part number 25379 stamped onto it.

A standard 8.5 : 1 head is 66mm deep. I don't think engines supplied loose have exclusive identities.

If you are lucky enough to have an engine number suffixed by “TP” It was built by me.

John S. Box March 2014

*Editor's note, “TP” are the initials of Thoroughbred Projects, John's company.*

*John also kindly dug into his archive and gave me a note of the 20 engines that he – Thoroughbred Projects – bought, between 1987 and 1993 for the Tempests and Vantiques that he made.*

*Apart from the direct questions above, it occurs to me that another couple of questions might be, where exactly on the heads were the cast number John mentioned located? and, if consistent, where was the part number stamped? – I may give John a ring and seek the answer to that before going to print – or then again perhaps not! Time, time....*

Ed.



Hi Brian,

26<sup>th</sup> March 2014

Hope you are well, sorry I missed you on your last visit.

Please find attached an article regarding a new ignition setup I've recently installed in Little Lucy's engine bay. It may be of interest to other owners, because the module may be used on any Reliant engine, or any distributor equipped engine for that matter.

If it's of any use for the magazine, please feel free to use it.

Best regards, Paul. (Wheatley) No. 422

### **Aldon Amethyst Ignition.**

Having modified Little Lucy's re-manufactured Reliant engine for better performance, especially in view of its high compression ratio, I have always taken a cautious approach regarding ignition settings. Over the last ten years or so I have experimented a fair amount with the ignition advance curve via mechanical changes to the internals of the distributor. This is very time consuming and the results are quite difficult to gauge without ready access to a distributor testing machine, which only a few ignition specialists seem to own these days.

The distributor for my engine, in its final form, sported Mini Metro A+ internals with heavier springs (less total advance, slower rate than Reliant). Although the engine never pinked, and went very well at low revs, it never pulled as well as I had hoped.

Fitting a Suzuki Jeep diff (ratio 4.1 to 1, rather than the "normal" 5.11) made things worse, especially after I fitted a rather disastrous "fast road/trackday" camshaft in mid 2012. The latter wore out very quickly (you could hear the tappet noise increasing as the car was being driven) and it caused valve gear problems. The Reliant engine was eventually taken out in desperation, pending a Suzuki conversion!

However, over the last couple of weeks I decided to strip the Reliant engine, repair it and refit the original Piper trials cam. Two people had said that they might want to buy the entire package from me, provided it was in a usable state. Having taken great care over the rebuild, and fitted a new clutch etc, I realised what a really good little

engine it is, and that I was about to lose a lot of money on it. So I put it back in the Liege! The Suzuki conversion can wait a while longer and we will take the car as it is on the long summer run via Spain and up through France.

During the rebuild I happened to read an advert for the relatively new “Aldon Amethyst”, which is a programmable ignition system for distributor equipped engines. This works in conjunction with almost any existing ignition setup, using either traditional points, electronic Hall effect, or an optical sensor.

The recommended ignition trigger method is an “Aldon Ignitor” and this is the simplest to connect. As the car already had one of the latter items fitted, I decided to bite the bullet and order one direct from Aldon.

The operating principle of the Amethyst is to replace the centrifugal and vacuum advance mechanisms of the distributor with digitally generated signals. The user can use one of the eight “maps” already loaded in the controller, or quickly create new ones on a laptop computer, using the provided software. Up to eight maps can be stored, however in practice only a couple are needed once the settings are optimised for the engine. Map 8 is “blank/null” in that it has no advance; all figures are zero and this map is used to set the static timing at the crank pulley. All other advance settings are super-imposed on this setting, just as they were with the distributor working in the “old fashioned” mechanical way.

The package arrived in only a couple of days. It contains the “black box” unit itself, some 'O' rings and electrical terminals, a memory stick, and a USB cable. The cable connects the unit to a laptop/netbook computer using the operating software on the memory stick (this can also now be downloaded from the Aldon website).

The advance innards of the dizzy need to be locked up, using the O rings supplied. I decided to supplement these with small tie-wraps, which I felt were more secure. Having done this, there is no centrifugal or vacuum advance “computed” within the distributor itself. The static trigger point signals provided from the Aldon Ignitor module go direct to the Amethyst computer, which modifies them with the user-selected advance curve and directly controls the coil. The HT energy goes from the coil to the plugs through the original rotor arm, in the normal way.

The black box needs to be protected from heat, electrical interference and water. I decided to fit it in the engine bay, in a vacant area on the left side bulkhead, using heavy duty self adhesive Velcro, so that no holes needed drilling.

There are only four main electrical connections to be made, namely:

Red, live (12V), from the ignition switch and black, earth, to power the system.

Green, to the output of the Aldon Ignitor in the dizzy.

Yellow, to the negative LT terminal of the coil.

There is another, thin black wire, which can be used to switch between two advance maps, or to a simple immobiliser switch. All very straightforward and properly explained in the manufacturer's instructions.

The only other connection to the unit is for the vacuum pipe. I kept the Reliant "fuel trap" capsule and used silicon tubing to connect it to the carburettor vacuum point.

I wired it up and turned on the ignition. As advertised the red "timing" LED on the unit lit as I rotated the engine by hand (it signifies "points open/closed"). A further turn of the key and the engine fired right away. I let the engine warm up then used my strobe gun to set the static timing figure to 10 BTDC and the engine settled down to a steady rumble. I switched on the laptop computer, loaded up the software programme and began experimenting to find a suitable advance curve. Note: the netbook needed "Java" installing, it didn't have it and the software was written as a Java Archive file (\*.jar).

The car passed the MOT test first time (and emissions, always an issue in the past) and has since been road tested. I intend to get it checked out on John Lamb's Clowne Garage rolling road, to make sure it's giving its best, but even now I have to say that it runs better than it ever did before. All in all I think it was well worth the outlay.

P.S. Since writing the above I decided I was unhappy about using O rings and tie wraps to lock the internal advance mechanisms of the distributor – I could still feel some movement which could result in

unreliability. The internal parts have now been tack welded in place, all movement now gone.

Paul Wheatley (Car Liege 16, Little Lucy) 20 Mar 2014.

~~~~~

## Epilogue

Back in March I was saying how utterly spoiled we had been as regards the supply of good articles recently, and how you had been spared from too many of my witterings, and the trend I am delighted to say has continued - how lucky are you? Still!

It really and truly does make my job so much easier and rewarding, when I have good articles to put in the magazine, once again my grateful thanks to those concerned.

As you know, I am cutting back on some of my other responsibilities this year, and putting together an edition like this is really delightful. I cannot find the right words to express my gratitude. This is just how it should be, and I really appreciate it. If only one could bottle this feeling, one could make a fortune!

Something else that brought this (feeling good about things) home to me recently was our most recent subscriber, Matthew Hewitt from Rugby (less than five miles from Thurlaston where I was staying that night at another Kitten owner's home), whose Kitten renovation story you will have read earlier, who kindly took me for a spin in his Kitten in March, thanks Matthew, great to be able to put a face to the name and see a Kitten I had not been in for many years, indeed for the Register to be re-united with the car again, wonderful stuff. Yes, of course I took pictures, but should I fill the mag with them, that is the question!! O.K., next time, I promise.

Oh bother, we are all but out of room, tell you what, I'll sneak an extra sheet in this edition, confident I'll stay within the thickness limit for a second class stamp. Good exercise in restraint to keep the supplementary sheet down to one A4 sheet this time! (he said in March just as he was about to start the last edition's supplementary sheet - I

said it before and I'll say it again I have never, or at any-rate can't ever remember being so far ahead with the Mewsletter. Thank you, Matthew, Paul and all three Johns for making that possible this time.

One thing I am aware of is that the balance between text and pictures varies a lot from one edition to another, a few pictures can quickly and easily fill quite a few pages, is that cheating? Or should it be encouraged? Being a benign dictator has its challenges!!

Well, here I am, all but finished our May / June edition and I have not even sent the last one out yet – that is a first!

I need to stop working on this and ring round those on the adverts sheet to confirm everything as best I can so that the sheet can be printed and the magazines posted early next month – that will be April by the way!!!

Oh, you know what to be doing with that grease gun, don't you?

*Brian*

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