

RELIANT KITTEN

REGISTER

Newsletter 1,

Newsletters 2 & 3

*The first three editions of the magazine had no front cover, simply an A4 sheet. These editions were in the event reprinted several times over the following years, then lost during a computer disaster early in 1999.*

*I managed to avoid having to re-type them, as we got them scanned in from hard copy in June '99.*

*Many things have changed over the years, and so some of the text is irrelevant now, but in order to retain as much of the character of those early editions as possible, I have not altered the text. In spite of that both the font and format has altered ( I hope improved ! ) since those early days.*

## **RELIANT KITTEN REGISTER NEWSLETTER**

### **FIRST EDITION 1992**

Hello, and welcome to this the long awaited first edition of the magazine of the Reliant Kitten Register.

One of the reasons for the delay has been the desire to find an appropriate name for this publication. The Rebel Register call their publication appropriately enough the 'Rebellion', but what to call this ? The Baby Cat perhaps ? Doesn't quite have the same ring to it does it ? Still, as they say what's in a name ?

If you have any suggestions, do, please let me know.

What is the purpose of a Register such as this I sometimes wonder ? Obviously the main aim is to keep track of the vehicles, and to give owners a point of contact. Hopefully to share ideas and help to keep as many of the cars on the road as possible must be the main considerations. Other areas which could be considered are the desire to get some publicity for the cars in an effort to make the public at large aware of the vehicles and along the way to create some interest and hopefully see an increase in values.

I do know of an instance in 1992 when a Kitten changed hands for over a thousand pounds! but most of them struggle to fetch half that figure. While it might be good for anyone wanting to acquire one, I wonder just how well maintained a vehicle can be when folk put such a low value on them. The availability and cost of spare parts is the area of concern which seems to affect most people, both owners and prospective owners. I know that front ball joints were selling for over 50 pounds including V.A.T. earlier this year, and I must say that I do not understand why they should cost anything like that much, still, I suppose we should be grateful that they are still available at all.

I know that the Reliant Dealer in Stirchley near Birmingham, had a batch of Kitten clutch cables specially produced, a little shorter than the standard three wheeler one which Reliant used, and still had a number of them in stock for about 10 pounds each in May 1992.

I have been asked if the Fox front shock absorbers fit the Kitten, and I honestly do not know, but I suppose they might as the chassis' are very similar. Does anyone reading this know? The Reliant dealer in Leeds always have a Fox in stock any time I am down there and so presumably know something about them.

Koni or Spax can always be relied upon to manufacture one to a sample if they do not have a suitable unit in stock, but expect to pay well over 50 pounds each.

Stainless steel is the thing to have your exhaust made of, it never fails to amaze me just how few Kittens have this done. If you are really stuck let me know as Bobby Brown in Ayr will produce and fit (he builds them on the car) a full system for under 100 pounds. We do have Kittens in Scotland, and it is not impossible for someone to go down for a day and have one fitted and removed again just to send it to you. Obviously by the time that someone has their petrol expenses paid for and the carriage charges are met the cost will have topped the £ 100 mark. If you are planning keeping the car for a long time, it is well worth the investment. Sadly Bobby does not

have stainless exhaust clamps available, still, you can't have everything!

I have not advertised the Register in the past, other than within the pages of the Scottish Branch of the Reliant Owners' Club Magazine. I am both Chairman and Editor of that organisation, and really a Rebel man at heart, although my Rebel does have a Kitten engine in it. Yes it was out of a Kitten, not a three wheeler, although, as I am sure you know, they are the same.

I keep meaning to do an article for Slice, the Reliant Scimitar and Sabre owners club Mag, to make them aware of our existence, as a lot of Scimitar folk have / had Kittens as second cars. One day I will find the time.

I will make the apology and comment just once, and not repeat it for a while, that the only reason that I am doing this at all, is the fact that I feel strongly that someone should, and I have failed to talk Terry Scott into doing it along with the Rebel Register which he runs so well. I really don't have the time, and with my heart belonging to Rebels, the predecessor of the Kitten, I would be happy to pass the responsibility on to anyone who I feel has more time / energy or enthusiasm for the job than I do - nominations / volunteers patiently awaited!

Right, that said, let's get on with things. It is the plan to initially put out a communication of some sort twice a year, circulated to those who have been generous enough to contribute towards the Register in any way at all, and also to the editors of a few publications from whom I hope we might receive a mention.

The layout will not be formalised as yet, although the sort of thing I envisage should presumably contain a list of subscribers, and or a list of known Kittens. The Thistle Branch of the Reliant Owners' Club has four times as many Kittens as the Register has subscribers at the time of writing! Although most of the owners know that I have not had the time to really get going, and perhaps when they receive this they will be good enough to 'sign up', hint, hint!!

Apart from the parts supply concerns, I am often asked how to get more out of a Kitten engine, my response in the past has been, 'join the 750 car club, and ask them' and I would still offer that advice, having said that I can recommend the services of one Dick Watson, who can be contacted on 0309 672971, who will be happy to build you a very good, higher than standard performance engine which will make the car go further on a gallon of fuel, if you can avoid the temptation of using the extra performance!! A Kitten with one of 'his' engines fitted will exceed the British motorway speed limit by over 15 M.P.H. quite easily, and that is only doing 4800 R.P.M. in a Kitten estate, and still return over 40 M.P.G. The engine I speak of only managed 58 M.P.G. on a recent (October 1992) 155 mile run at an average speed in the mid fifties, and that was measured from brim full tank to brim full tank, which I happen to believe is not a good thing to do as I think some fuel spills out on fast left handers when the tank is brim full. I accept that others have a different view. To digress slightly, I moved the Rebel's petrol filler up the side of the car by a foot or so to both avoid such spillage, and to save having to bend down to put fuel in, and my M.P.G. improved by 6 over-night - I accept that the Rebel and Kitten are not identical in that respect, but they are similar.

So far we have Register subscribers in Scotland, England, and Belgium.

I did write to, and get a detailed reply from John Box, over a year ago now. John is the chap who is responsible for the Tempest, a Kitten based hill-climb special, aluminium bodied car.

It is tempting to say that I will use these pages to reply to any questions which I am asked about Kitten related matters, and I certainly intend to do so, but, obviously, with this only coming out twice a year, yes, yes, if there is enough interest, and if I can find the time and or delegate, it would be good to make it quarterly, it might be a while before any particular point got answered if I did not reply directly. So I will try to lay aside an evening a month to deal with any Kitten correspondence, please do not be offended if I take a while to reply, it isn't lack of interest, just lack of time, speaking of which, if you are even going to see this much in 1992, I had better finish here. Happy motoring, and keep Kittening, some of us Rebel enthusiasts call a group of Rebels in the one place at the same time a Rabble of Rebels, what collective word might we use to describe a group of Kittens I wonder - answers on a postcard please!!

All the best for '93

**KITREG1.RKR**

## SECOND EDITION S P R I N G / S U M M E R 1993

Hello again, welcome to this second edition of the magazine of the Reliant Kitten Register. I have, as you will have noticed, adopted a new font for this edition, we now enjoy 12 characters to the inch rather than the 10 of the past. Why in the 1990's we still, officially talk in characters to the inch, must reflect the American software that so many word processing packages use! Still, the smaller print will enable us to enjoy 20% more of whatever you might like to call these ramblings.

One thing which has become clear, is the fact that we should not be calling this a magazine, nor indeed should we ever hope that it grows up into one, it is of course a Mewsletter! Thank you Bill and Win Lonie, I would call Bill our Man in Melrose, but that would not be quite accurate as he lives in Newstead, go on, dig out your maps!

If you have any other suggestions as to a name for the Mewsletter, do, please get in touch; just because I am convinced that it should indeed be a Mewsletter, does not mean that it can't have a name!

In the last edition I laid out some, flexible, guidelines as to the sort of layout this publication might follow, and in the absence of any better ideas, I will try to move in that direction.

The circulation of the first edition included many Kitten owners who were known to me, but who were perhaps in some doubt as to what the Register was about, or were aware of just how busy I am, and did not wish to add to my workload - well, I am ready now boys and girls, so lets be hearing from you. Indeed my enthusiasm to get more folk involved, prompted me to send the mag. to those Kitten owners I knew of who were not at that time, subscribers, before those of you who had subscribed got yours. Indeed my record keeping, before I got the database set up, was appalling, and I am still in doubt as to exactly who got a copy of the first edition, if you did not get a copy, just drop me a line, or give a ring, and I will get one off to you right away.

The availability and cost of spare parts is the area of concern which does affect us all. I know that Slice, the Reliant Sabre and Scimitar Owners Club's magazine, have recently bent to the demand of a number of their members who own Kittens or Foxes, and now regularly include a 'Pussy page', it seems to be page 13 rather than page 3 mind you, and if I can obtain their permission, I hope to include some of those articles in here.

Wrexham Scooters of 62 Smithfield Road, Wrexham, LL13 8EP, who can be telephoned on 0798 265795, or faxed on 0978 265875 and yes I realise that the codes are different for Fax and 'phone, I have pointed this out to them, but await a reply, boast a good stock of Kitten spares, and while I have not been directly in touch with them in connection with the Register, would be happy to hear from anyone who has. How about popping along Jeff, they can't be far away from your neck of the woods.

In response to my question last time, Bob Neal, he of Essex Branch of the R.O.C. fame, tells me that Fox front shock absorbers do indeed fit the Kitten, in fact he tells me they are identical. Anyone have a source? because I have not been able to get them up here, but will admit to not spending much time trying.

The front lower wishbones on the Kitten are prone to corrosion, and are becoming an all too common M.O.T. failure point. New ones are not available as far as I am aware, if you know differently, please let me know. So, keep them clean and well protected with whatever you feel is appropriate. I like hammerite simply because it does not need a primer on old metal, and dries quickly. The only problem with it is the temperature requirement, and the very strict rules regarding second coats, i.e. within 2 hours, or at least 6 weeks later. The upper and lower ball joints must be greased at least twice a year, if you expect them to last, yes they both have grease nipples, although they may, particularly the top ones, be completely covered in mud and road dirt, get them cleaned and pump two or three squirts of the grease gun in. You will regret it if you don't take care of them, because they are expensive to replace. Back to these lower wishbones, I am unable to remove one from my Kitten chassis because it has become rusted firmly in, and I have badly bent the flange it locates in between by hitting the bolt too hard before I realised what the problem really was. This bend must mean that the hole is no longer circular, and so my

chances of removing it without destroying either it, the chassis, or both, are pretty remote.

I shall include an article which I published in the Easter edition of my R.O.C. branch mag relating to technical matters, but would point out that I have been corrected as regards my observation about Kenlowe fans in as much as that it was installed in an effort to get the engine hot. NOW I know that some of you might find that odd, but it is a fact that a properly maintained engine and cooling system in a Reliant, will result in the engine being kept pretty cool, those who have had overheating problems please note! This particular engine was being run on synthetic oil, see other article, and note that it should not be used on a brand new engine, or a reconditioned one, till they are run in. Yes I know that that is an old fashioned term, but you must remember that the power unit in the Kitten is basically just that of a Austin 7 with an aluminium crankcase and head, and as such has been about for more decades than most of us! A lot more!!

Indeed Scott Rodgers recently remarked that a Kitten or Rebel was really just an Austin 7 with a heater, hydraulic brakes and a rust proof body! food for thought, and apart from the rack and pinion steering on the Kitten, he is not far wrong.

One of our number, from Newcastle upon Tyne, calls his Kitten "George the Resin Rocket", well his girlfriend does, I was trying to think what word, beginning with the letter P, would sound as good as Rocket, and then it could be abbreviated to G.R.P.!

There is a great feeling of fun associated with these little cars, and why not? Not only are they economical, reliable, rust free (Chassis and fuel tanks excepted, assuming you already have a stainless exhaust, and if not 'my' man in Ayr will be happy to make one for about a hundred pounds, be sure to specify whether you want a circular or oval silencer, and the diameter of pipe you would like) transport, but they are easy, and fairly sporty to drive. Several are still with their first owners, and many are the sole transport of the individuals to whom they belong.

Right, enough about Kittens, lest the Foxes and others feel neglected. I am delighted by the number of Fox owners who have signed up, and yes I realise that the figure of 400 produced which my standard handout contains is the subject of debate. Bob Neal, as Historian of the Reliant Owners' Club (yes, they are finally becoming interested in the vehicles, not interested enough to appoint a Registrar as yet, but one small step at a time is better than nothing!) has I know, some contact with the designer of the Fox, who I believe said that over 1,000 were built. Now the figure of 400 which I used was given to me off the top of her head by Anne, and I am sorry Anne but I can't remember your second name, of Reliant, as it was then, because she said they had been asked so often that the numbers were engraved in her mind for all time, so, Bob, can you tell us more, or indeed any of you keen - what do we call Fox owners?

Bob's wife, Barbara, has the only Jimp on the register so far, which makes you unique at this time Barbara, perhaps as the months pass, we will find another to keep you company.

As far as the Cyphers are concerned, they are pretty thin on the ground, if I have time and space I will risk including an article published about the Cypher at the time it was trying to get going. I personally am sorry that Tony Stevens and Reliant could not come to an agreement at the time, as it looked just right, and would I am sure have sold better than the SS1 did.

One of my failings is not being able to stay on the one subject, and I will at some point in the future, introduce an index, and keep this whole thing under control, remind me of that sometime. But, before I forget, it is the 20th anniversary of the Thistle Branch of the Reliant owners Club this year (1993) and our big 'DO' will be held at an event organised by the Doune Classic Weekend folk, at the Doune Motor Museum in Perthshire the last weekend in August. It is a wonderful setting, in the centre of Scotland, just 10 miles from one of the main motorways, near Stirling, and if you would like to know more about it, or perhaps like to come along, camping is available, and the club should have three or four caravans there, do get in touch. You would be made most welcome, and I am sure have a weekend to remember. A VHS video of past events is available on loan, give me a ring or write if you would like to see it. We hope to have as wide a section of Reliant produced vehicles there as possible, do give me a ring if there is anything I can help with which will encourage you to come along.

## TECHNICAL TALK

The most common faults which prevent a Reliant (regardless of how many wheels it may have!!) from running, as with most petrol powered vehicles, are electrical, followed by fuel supply problems, which can be caused by anything from a faulty pump, through a clogged filter, to a problem with the carburettor itself; roll on the new fuel injected engine!!

On the subject of fuel filters, Kittens, and for all I know Foxes and others, left the factory with an in-line filter just in front of the fuel tank. It does not look like a fuel filter, in fact it looks just like a thicker bit of rubber tube which joins the metal pipe which comes out of the tank, to the narrow plastic pipe which runs forward to the fuel pump, do not be fooled, it does contain a filter, and it can, and will, become blocked in the fullness of time. When that happens you will be able to start the car O.K., but it will not drive very far before it stops, with all the symptoms of fuel starvation, and indeed that will be just what it is. I once spent a lot of time and money trying to find the fault, indeed I was almost at the stage of scrapping NNS 191P, when a friend suggested a complete replacement of the fuel line, as he had had a rubber one perish internally, and act like a valve, shutting off the supply, so we changed the whole thing, and it ran beautifully again!

I will digress slightly at this point to plug my latest improvement to the Reliant, that is the fitting of an Exide Torque-Starter battery, yes they are expensive, but they are also small and light, and a lot more powerful than the one you are likely to have in the car just now. They cost just over fifty pounds, but as I said, they are small, light and very powerful, they even have a neat carry handle.

Electronic ignition can be a mixed blessing, it is an improvement on the original system when it works, but a lot more complicated and expensive to repair when it fails. In fairness to Reliant, and old Joe Lucas, they did do a conversion kit specifically for the Reliants, so that idea is not just a Brian-go-better mod. but an officially recognised improvement.

Fuel filters, and particularly pressure flow regulators, in the absence of a system with a return to the tank, are another favourite of mine, and Alan has just fitted a ceramic magnetic device to his Kitten which makes great claims about improving performance and economy, please Dick, can he move the red line up a bit, as this trying to change up at 5,000 revs is very frustrating because it is really beginning to spin then Sonic the Hedgehog eat your heart out

At the risk of putting his insurance premiums even higher, I can tell you that the yellow peril will now clear 60 M.P.H. from a standstill in under 12 seconds, or so he tells me, believe it if you like, but it is certainly the smoothest Kitten I have ever driven.

Update on that, Alan has just put a Malpassi Filter King into the system, added 4 seconds to his 0 - 60 time, and improved his M.P.G. from the low forties, to the mid fifties at a stroke, mind you it will not idle for more than a couple of seconds, the penalty of a lightened flywheel!!! Those fuel consumption figures by the way include driving through the centre of Glasgow every day.

Right, I will sign off here, perhaps more specifics next time, come on people, I know there is a wealth of technical information out there, a few hints people, please ?

## TRUE GREEN

Just how many of us are really concerned about the environment which we will leave our children? Many of us may use the occasional tank of unleaded fuel, to be honest, in spite of what Reliant have said, I would not recommend it. The Government of the day certainly gives lip service to green issues, but how many of us, or them come to that, use synthetic oil in our engines? Only two that I know of, yet the benefits are immense, both to the vehicle, the owner, the engine, and perhaps most importantly, the environment.

What is synthetic oil I hear you ask? Well, and I am no expert on the subject, but basically it is a man-made liquid lubricant, which makes a better job of lubricating moving metal parts than any other product available today, it almost completely dissolves in water, so should only be used in well maintained engines, a seeping head

gasket will soon mean no lubricant in the sump!

Friction is reduced and so efficiency is increased, also the range of temperatures over which it remains stable is far greater than that capable by normal engine lubricants.

O.K. I hear you ask, what is the catch? Well, for a start, if you all rush out to buy it, demand will exceed supply. Secondly, if you own a vehicle which is still under manufacturer's warranty, then watch that you are not infringing the terms by using a lubricant which is not recommended by the manufacturer. The fact that Formula One racing engines use synthetic lubricants is not taken into account by your average motor manufacturer, not to mention the fact that the oil companies have more than a passing interest in keeping us in our old ways. They go to some lengths to encourage manufacturers to recommend the sole use of their products, to the extent that a list of recommended lubricants will almost certainly exclude such beneficial things as synthetic lubricants.

Then there is the matter of cost, your average synthetic lubricant will cost three or four times as much as your normal oil, but don't forget that it will last longer, cause less drag, and so less wear in the engine, and enable the engine to run more freely and so use less fuel, but above all, it is virtually bio-degradable, and so very environmentally friendly. If you want further proof, just ask Alan Marshall for a haul in his Kitten, those who read Slice (The Reliant Sabre and Scimitar Club's excellent magazine) might like a run in it too, as it well exceeds the claims relating to acceleration and top speed claimed in a recent edition of that fine magazine, and has enjoyed the benefits of synthetic lubricants for something over 55,000 miles, and still maintains over 50 P.S.I. when running, and believe me, he runs it hot! Funny that, I always thought that Kenlowe fans were meant to help keep engines cool!!

O.K., only joking, I realise that the main reason for the thermostatic cooling fan in that case at least, was to enable the engine run hot.

Wait a minute, I have just discovered that a major European motor car manufacturer now in fact uses synthetic oil as the lubricant in its new cars! so there! I wonder what they use to let the engine run in?, because it never would if it started its life with synthetic oil.

O.K. one last word as I am running out of time, and I did suggest that this would be out in the Spring, the clocks went forward last night, so I almost made it! I have recently acquired the engine and gearbox which were in the Kitten which the ministry crash tested. They had done just 11 miles, and so I hope to enjoy some years use from them, probably in one of my Rebels mind you. The Kitten they came from was particularly interesting because as well as the 30 M.P.H. head on impact, the vehicle, which had the engine and gearbox removed immediately after the test, was taken to the National Engineering Laboratory in East Kilbride, for a side impact test, and was then crushed in a big hydraulic machine. This was all done in the interests of safety! The increasing use of G.R.P. generally about that time made the ministry decide to select an example for special tests of this new material, which Reliant had been using for a couple of decades! and the Kitten we all know and love, was selected for this special place in motoring history. A full file including photographs does exist, and while I am in no position to expect access to any of that information, we do have a contact in the department concerned, and I will ask him if there is any possibility of us getting a copy of at least some of the information or pictures. Douglas, if you happen to read this, I am sure anything you could take the time to say, would be of great interest to our readers.

One more last word (yes, really this time) before I go, I have not forgotten about the Certificates you were all promised in my initial invitation to join the Register. I do have the marble effect paper, and even a number of A5 protective sleeves to encapsulate them in, but, like the front cover of this publication, the artwork is holding things up. It will be done, honest, I just do not know when.

All the best, and keep Kittening.

**KITREG2.RKR**

### THIRD EDITION WINTER 1993

Hello again, welcome to this the third edition of the magazine of the Reliant Kitten Register.

As you will see I am trying to adopt a more professional layout for the Mewsletter, as it happens I was made redundant last month, and so for all the wrong reasons, have a bit more time to play with the software, should look good on my C.V., what!

Right, I will begin this edition, on this cold and frosty November morning, by asking you a question - WHEN DID YOU LAST GREASE THOSE FRONT BALL JOINTS? Since last we spoke I have heard of three Kittens which have failed the annual test due to excessive play in them, and all three almost certainly had not seen a grease gun for years! So if you have a garage and a grease gun, go and do it NOW please! Top and bottom! (Yes I do realise that the new, bottom ones don't have grease nipples) and when you come back in from the cold, you can sit down and read the rest of this.

Now, when you were under the front of the car, did you happen to notice the condition of the front brake pipes and hoses? Never mind, it's cold just now, we'll get back to them later. What I will say is that those front flexible hoses are a pig to change, that mounting bracket for the inner end was not put in a good place for changing the hose with the body on the car.

If your car has not had the original pipes replaced then it will probably soon need them done, and the hoses, at about £25 for the three, are really as well replaced at the same time. Goodridge stainless ones can be bought from Goodridge, and if you are interested give me a ring or drop a note in the post as they give about 20% reductions in price for orders of 5 sets or more, which would cover the V.A.T. and some of the postage. There are basically two options, stainless hoses with nickel plated ends, or stainless hoses with stainless ends, the latter being about 50% more expensive than the former, but if we are going to the trouble anyway, why not just do it right ?

While on the subject, brass brake pipe ends, on either Kunifer or copper pipe, are a good idea too.

I have had quite a few letters from subscribers, and while I have neither the time nor the space to include them all in here I will quote from them any bits which I feel may be of general interest - oh dear, a lot of them are of general interest!

Les Cruickshank's story of the body off rebuild on Moyra's Kitten will give you an idea of some of the problems encountered in such a task. The fact is that if these fine little cars are to continue to give reliable economical service into the next millennium, and that is only six years away, then they will probably all need such treatment, and a lot of them will need it sooner rather than later, anything less, and you can expect trouble with chassis corrosion, and that is an awful lot easier to deal with the body off.

Phil Hallam, a truly remarkable individual (I used to be one of them when I was younger and in better health!) has a metal frame, which he designed and built, which has enabled him to remove a Kitten body from its chassis in 6 hours on his own. He can now roll the chassis out and in from under the body which sits just a couple of feet above where it should sit. The frame is available for hire with a deposit, or I am sure that if you send a S.A.E. he will send you drawings and you could make your own. I have not asked him about that option, and since he would have to make / copy drawings, there may well be a small charge.

### Technical Talk

Well Brian here goes, you have been asking for some time for input on the technical side of things and so have some of the Register subscribers, so you people out there you know who you are, this is the start, but remember we need your contributions too.

As many of you know I drive the yellow Kitten Estate with the bonnet scoops. This car was previously looked after by Dick Watson from Forres. I would compliment Dick on the condition he has kept the car in over the

decade or so it was in his custody.

Let's start with the obvious - the two scoops on the bonnet are there to keep the poor wee car cool, but only once it has warmed up. The car has had the cooling fan removed and the front grill section area reduced by 50% this has been achieved by fitting a sheet of 3mm aluminium behind the grill this plate has two rectangular holes in it which are 1/2 the size of the original thus reducing air flow. As to the two slots below the grill these are totally blocked off in the winter by the same method this coupled with the 92- thermostat supplied by "Minisport" helps the car to warm up. Now I hear you cry but mine gets too hot. Thanks to Dick's engine rebuild this cat runs quite happily 10 to 15 degrees warmer than your average cat, the problem is once you get it there, cooling it down when you get stuck in traffic could be a problem. This is done with the aid of the "Kenlowe" electric cooling fan which is thermostatically controlled by its probe stuck in the top radiator hose. The variable temperature control for it being mounted to the left of centre above the radiator when looking from the front the fan itself is mounted with a little cutting and flexing of fibreglass in front of the radiator behind the grill and the bottom air intake slots the universal kit does fit and takes one man about 4 hours to do the job properly.

My next problem was the radiator so I went to my friendly B.L. garage and bought a brand new mini one which comes complete with mini cowling which I gave to a needy mini owner. The new Rover part costs less than a reconditioned unit namely £32 after discount and that then needs two spacer plates made up so as to utilise the Kitten mounting bolts and the mini cowling mounting bolts. two pieces of 1.5mm stainless 24mm wide and 240mm long with four holes in each. These are necessary as the mini side tanks are different to the Reliant however other than that they are the same. After this you head down to the local scrap yard and pull an expansion tank off any car you like. Get a small one and take the pipe to connect it to the radiator. In fact get one you can see through, as mine you can't, and this means you have to lift the cap to check your coolant level, a visual inspection through the thing is a lot simpler. This you mount aft off and above the battery (Exide Torque Starter) and connect with the pipe you took to the overflow outlet on the radiator after first removing the overflow pipe. Now we have two schools of thought I recommend you try and see what suits your car best either pressure cap both (my car) or pressure cap expansion tank and flat cap radiator. Both seem to work I have found with my engine temps two pressure caps best.

Now lets look at lubricating the engine a good fully synthetic oil will do nicely Sir. Mobile 1, Valvoline Synpower, Castrol RS. note before fitting get rid of oil leaks and flush the system properly. This oil is expensive but if you have cured the oil leaks you don't change except every 20,000 miles and that is the filter too although I change my filter every 10,000 miles and oil every 20,000 miles. Not as dear as you thought (Valvoline) is the cheapest at around £17 for 4 litres. So now you know why the bonnet scoops, I have got to be able to push the hot air somewhere, besides, it melts the ice and snow on the windscreen.

Hot starting as everyone at Doune in May of 1993 will tell you is a problem. When I bought the car it had a Lucas electronic ignition system on it and during the first few weeks this proved nothing but trouble. Looking back over Dick's service history it would appear he had the same problem although he persevered with it, and was spending money every few months. Not the reason we fit these things, so it went in the bin. Back to good old points, and it ran like this for some six months. Now what to buy? I looked into the world of electronic ignitions and one name kept coming up that of "Lumenition", and it was coming up for all the right reasons, so, yellow pages in hand, I phoned round the accessory shops looking for the best prices, and eventually found it at £90.00 in Glasgow and this included the distributor kit.

So armed with the power module {PMA 50} and the distributor kit {FK 117} I set about fitting it. The instructions are not well written or perhaps too well written, anyway first you remove all traces of points i.e. points, condenser, the little wire which runs along the bottom of the base plate in fact everything until you have a bare base plate. Now you take the wires out of the plastic connector plug and pass them through the hole in the side of the distributor where the points tail came through, and then refit the plastic connector. Next you mount the optronic sensor to the base plate with the screw provided, then carefully push on the 4 bladed chopper to the cam lobes and then replace the rotor arm. Go on treat yourself, buy a new one. Now you mount the power module on the bulkhead at the back of the engine compartment above the brake master cylinder and then feed it with power with the leads provided. Please note it is best to earth to a main earth block or direct to the battery, as the unit requires a good earth.

Now start the car and set the ignition timing. That is it, forget about it, you will never have to look at it again. It should be noted the unit carries a 3 year guarantee however no one I know who has had one has had any bother with it. What's more the shop I got mine in has sold over 1200 of them and to date has not had one back. Sure beats the Lucas unit. Fitting time under 1 hour. At Doune in August of 1993 the yellow cat started first turn of the key every time during the driving event a pleasant change from the May event.

*(Now, I don't wish to be a spoil sport, nor a know-it-all, but one should realise that there are a number of other things which can go wrong with distributors besides a failure to make sparks, faulty or seized vacuum advance / retard mechanisms, and broken springs, you know, the ones which hold the balance weights in place below the baseplate, so while I fully endorse Alan's recommendation of the electronic system (and there is even a rev limiting option available, albeit at a price!) we should be aware that all we are solving are electrical problems here, and not mechanical ones. Ed)*

Now the problem of rough idling thanks Dick, how about a slightly heavier flywheel! No, just kidding, this was sorted out by a McKeown Industries "Posivlow" sorry people they went out of business 4 months ago but the club can still get them cost £65.00 it is so simple, just two green "W" shaped ceramic magnetics which are fastened on to the fuel line before it enters the float chamber. Two tie straps fitting time 1 min. The unit is designed to give better fuel economy it does this by charging the fuel particles causing them to burn more efficiently IT WORKS 17% BETTER FUEL ECONOMY and the way I drive that means 50 to the gallon on my normal driving N.B. Motorway door to door except the last 5 miles and 26 miles to work journey time 21 mins., work it out for yourself, let's just say nothing passes me. On Sunday there I took the children out for the day to Deep Sea World and Edinburgh total mileage was 128 total fuel used was 9.9 litres and that is 58.7 MPG that is not bad for 2 passengers, pram, tool box, and driver.

If anyone wants a posivlow please let me know as my source has limited stocks and they are not made now. 01505 328114, Alan.

For more information on these units please see the attached article on them it speaks for itself. Sorry folks, no room Ed.

Now let your car breathe as anyone who has tried to buy a new SU carb for their car will know it is not very easy so what can we do about it, well there is hope, if you remove the carb and the water cooled/heated jacket there are alternatives for me I have got a nice "Weber" thanks Dick. This bolt on goodie is kit No 152760168 (check that number, it may have been superseded) and is for a Ford Fiesta. Comes off the shelf of your good accessory shop at around £110 the only mod needed other than the redirection of the hoses or blanking off of them is the cup to fit on to the throttle mechanism a small brazing job, N.B. Speedy Cables of London will be happy to make you any cable you want for a reasonable price ask the club if enough people need them they might be prepared to stock them.

## **The tale of the Hallam Kitten**

So, how did I come to purchase TCA 111R, well, I 'phoned Brian to say that I'd found a Kitten estate in a local scrap yard and it was for sale for £140 without registration plates, chassis plate or documents. Brian's reply was as usual, 'No problem there', however how about a Kitten saloon that one of the R.O.C. members in Neilston, a Mr McGowan had for sale. Last M.O.T.'d about two years ago, and stored in his garage ever since. He now needed to sell the car to make way for his latest project, a 1966 MGB GT. Brian had already negotiated the price down to £100 for a Club member.

Saturday the 13th of November (1993) arrived, a cold frosty morning, and I told Ursula, my long suffering wife that I was off to see a Kitten with Brian – 'We don't want a litter of them you know was the reply.

I should say that we both, well me mainly, decided that another Kitten would save on fuel, running our petrol consuming Volvo 245 GLE, which we could then insure on Classic limited mileage insurance, and the reduced use would hopefully help it to last longer.

So back to TCA it was complete, had alloy wheels, including the spare, was a not too nice turquoise colour

and started first time. The bad points were some chassis corrosion on the ends of the cross tubes, very low oil pressure, and a tendency to prefer neutral to second gear, all of which can be easily sorted says Brian.

O.K. so I am hooked, seen it, liked it, bought it. Brian, the complete gentleman, put a gallon of petrol in it and offered to drive it down the road.

Off we jolly well go, to the other side of Neilston where Brian flashes his lights and we stop, quick detour to John Johnstone's because we have no oil pressure, no electrics apart from ignition and lights, and it's very hot, but nothing registering on the gauge. The Johnstone's are not in, the car won't restart, so I have to push it (I really must get fit sometime). There is oily water in the radiator, and an awful lot of oil in the sump, so lets go.

Well we made it, put the car in the garage, and chauffeured Brian back to Neilston - thanks again, I owe you one.

Now most people would just put this car on the road, but not me, you see it is for my wife, and she won't drive my Kitten Estate since it broke down on her one night almost two years ago. So this car must be perfect, (*don't you mean Purrfect Ed?*) So it's a complete restoration job, read all about it.

So ended the first day of ownership, and just what did Ursula think of it?" It's great, make a really nice car for running about in - get started!' You know, I think she is more enthusiastic about these cars than I am !

Sunday dawns, can't wait to get started, actually I can, it's freezing cold, so just enough time to take a few 'photos before Church. Spent about an hour in the afternoon putting lots of penetrating oil on lots of nuts and bolts, pumping out the fuel, finding that the electric fuel pump is new, and removing the battery, funny how the alternator was wired to earth! I must add a new one to the shopping list. I also removed the door mirrors as I'm always walking into them. No Brian I'm not drunk never touch the stuff - I never said a thing, Ed.

Monday November 15th decided to try and fit the new back door to the house (Phil and Ursula have had the great misfortune of being burgled 4 times this year) no luck, it's slightly too big. So I spent 90 minutes on the car cleaning the chassis bolts and again spraying them with penetrating oil. I also eased the seats so that I can get in to the chassis bolts. Removed the grill to get access to the radiator bolts, drained the water / oil mixture which was trying to act as coolant. The radiator looks like a pretty new one. The rusty bit of the chassis which Brian had spotted had been patch welded and the adjacent chassis mounting for mounting the body needs replacement. Now I must design some kind of frame to support the body about 2'6" off the ground so that I can both roll the chassis out, and roll my trailer underneath.

Wednesday 17th November, I decided to remove the bolts on the nearside, the seat / chassis bolts need a spanner on the inside and outside at the same time, and it's difficult to get a spanner to fit, these need to be changed to cap screws, or welding the bolts to a small plate to stop them turning. Should really change them to stainless. The seat bolts in fact came out easily, but the two for the roll cage didn't, and had to be sawn (I always love it when someone says these things in a short sentence of a very few words - had to be sawn, - have you any idea how poor access is to them, how on earth do you get in at the blighters with a saw to cut them? Ed). Might as well not have bothered as it had rusted through above the plate. (As I should think the vast majority of them have by now, mind you I have never heard of an M.O.T. man spotting that particular failure point! Ed). I also removed the rear brake cable, and drums and looked at the rear brakes, new shoes, this car gets better, not too much progress for a couple of hours work mind you!

Sunday 28th November, I know I should have been at the Bird in the Hand for the R.O.C.'s Sunday Lunch, but it's 2 o'clock in the afternoon, and I've just finished fitting the back door to the house, and fitted a new starter motor to the Volvo, £83.50, I could have bought another Kitten for that much, anyway in three hours while the rest of the R.O.C. folk were being sociable and enjoying themselves, I removed the drivers seat, removed the brake pipe from the master cylinder, all the bolts holding the body to the chassis, the steering column from the rack, the offside brake cable and the bonnet. I've made a steel frame to sit the body on, yes Brian you can borrow it after I've finished. All I've to do is remove the clutch and speedo cables and the fuel filler pipe, and lift the body off (oh he makes it sound so easy doesn't he? Ed.).

Problems so far, well the rear footwell is split, the fibreglass here seems to be very thin, and the body looks like it has had major fibreglass repairs to the offside front wing maybe a new wing has been bonded on. Now I'm off to a weight lifting course!!!

I've just put the car away and it's Tuesday 30th November, so while I'm out here I'll just take the drivers door off. Bolts come out easily, so does the door, then all the shims drop onto the floor, and guess what, the captive nuts aren't captive at all, but held in place by short lengths of heater hose - neat idea, oh well, stuff it all in a bag and label it. 15 minutes to get all that off, probably two days to put it back!!

Now it's Wednesday, my night for the garage. The passenger door came off eventually, as it had been correctly fitted, being bolted to the upright as well as the fibreglass. The bottom hinge fibreglass is split, so I need to find out about Scott's repair method (actually Phil, it was Dick Watson's repair method, which Scott and Alan used, remind me to explain it, yes folks I will try and find time and space so we can all benefit).

So, how do you single handedly remove a body, - Step 1, make sure all the bolts are out, Step 2, remove the clutch and speedo cables! Step 3, jack up the body placing blocks of wood between the top of the chassis and the body, listening to the cracking of fibreglass round the bolts you missed! and support the body on Hallam's now patented (because it works) frame. With this ingenious device you can keep the rolling chassis under the body, and wheel it out to work on it, no, I've not finished with it yet Brian. (For those keeping a time check, 2.5 hours tonight).

Friday night, just out in the garage for a couple of hours. The chassis did roll out from under the body, and it's easy to work on (nearly said better than a "normal" car). 4 nuts undone, and just manually lift out the engine and gearbox, bliss, better than struggling with the Volvo hunk. Well, what else can I take off and still have a rolling chassis? Rear dampers, anti-roll bar, brake pipes, fuel tank (nearly new) fuel pipe, and loosen as many nuts and bolts as possible, then roll it back under the body.

Chassis inspection revealed:- large tube cross-member rotten at both ends, very moveable by hand! top of offside chassis member at seatbelt mounting rotten and holed, new offside seatbelt outrigger required, and the tubular rear crossmember holding the top of the rear dampers has been repaired at both ends, so I feel like replacing it with a new one. All in all, fairly simple to sort.

Tuesday 7th December in the garage for a couple of hours just enough time to remove the front suspension, with only a few nuts needing heat to remove them. I've left the upper wishbone mounting plates in place as these are shimmed and I don't want to disturb them. There is a small amount of rot on the offside upright, mainly confined to the thin cover plates which I can remove and renew. We'll soon have a completely bare chassis.

Friday night, and a couple of hours to spare. I'm getting behind with the chassis since my tame shotblaster goes on holiday for a fortnight at Christmas. I decided I should take the engine to bits. All goes well - the bores are perfect, and standard size, and the pistons just clean up with a wipe with a cloth. So, I can place an order for new piston rings, bearings, a timing chain, oil pump and valve springs. The condition more or less confirms the 60,000 miles on the speedo. I'm going to try an experiment of fitting a Mini Cooper 'S' oil pump, and using special dished washers on the cylinder head studs.

*Thanks Phil for the story so far, I will have to get a move on putting things into print or it will be a book!!*

I should say that in between all this, Phil did give up a weekend to weld and generally be involved in creating the car trailer that the Thistle Branch of the Reliant Owners' Club now possesses, many thanks Phil, and there is no rush for the body frame, my lock-ups don't have power, so it's the wrong time of year!

Right, enough of this, I have realised that I have been going on for 8 pages, and the input is all from north of the border, sorry Les, but I'll put the story of Moyra's body off rebuild in another time.

I was going to bore you all with a Kitten versus Rebel, pros and cons story, suffice to say that after 3 months of running a Kitten as my sole transport (after a decade and more of having the Rebel do the same job) I

can't wait to get a Rebel back on the road, the only things I will really miss are the heater and the reclining seats, and I guess it is not entirely beyond the realms of possibility that I may do something about both of those Rebel failings.

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I have failed to get this to you in 1993 as I had intended, it is now the 1<sup>st</sup> of January 1994, Happy New Year.

I spent yesterday, with help, trying to change the engine and gearbox in my Kitten. The sooner I give them up and get a Rebel back into service the better!

Three of us worked on it for about 7 hours, and we failed to complete the job. The main problem being the front prop shaft bolts. Even things like the radiator mounting, two vertical nuts and bolts through neat little "feet" on the bottom tank on the Rebel, 4 horizontal set screws into trapped nuts on the side in the Kitten. On the Rebel you use a spanner and a socket and ratchet, total time on average to remove radiator between one and two minutes, the same to refit it, but not on the Kitten. more like 10 minutes each way because of the difficulty of lining up the set screws, the fact that there are twice as many of them (which you do need when they are in the sides instead of the bottom), and the fact that there is not room to get a ratchet in, means you are reduced to the good old quarter of a turn at a time technique. I could go on, and I do have to say that the later Rebels had a similar arrangement to the Kitten, and also that I do know of one individual who, for cost reasons, fitted a Kitten rad to his Rebel. I dare say it was the cost of the special radiator in the Rebel which caused Reliant to change, but believe me, the earlier Rebel method is infinitely superior.

I have had quite a few letters which I had intended to quote at least bits from, and to those of you who have written and see no mention of your questions, stories, etc. in here, don't despair, I may find time to do another edition sooner rather than later. Also. I had intended to put out (do intend to put out!) a list of known cars, and current subscribers, but the good quality paper I am using just now is heavy, and I have no wish to incur the wrath of the Post Office, by exceeding the weight limit on a first class stamp, well not by too much at any rate!

To our new subscribers in the Cardiff area, I really must apologise, I honestly don't know what went wrong with "The System" in your cases, but I do realise that I have failed to respond in a suitable and timely manner, I hope this official apology will get me off the hook.

Pictures are another thing which I would like to be able to include, but the standards which I can currently attain are not nearly good enough, perhaps in time...

The numbers of Kittens produced is a matter of great interest, as you will all have seen in my standard information sheet, I claim 1349, well, I should say that Reliant claimed, when I asked the question of them on the telephone in 1990. But information has since come to light to suggest that that number is not in fact accurate, unless perhaps it refers to say saloons, or perhaps estates, or even vans alone.

Andrew Forrest from Mauchline in Ayrshire, was good enough to give me a copy of a letter he has from Reliant stating more like 4,000 in total. Also, I know from Bob Neal, who has been in touch with the Fox's designer, that he reckoned over 1,000 of them were made, not the 400 which I had been told. So, if you have anything in writing, or any information at all regarding numbers, dates or whatever, do please drop me a line.

Certainly the range of chassis numbers currently in the Register is not helping, for example, they nearly all start with the numbers 14, after the prefix, and all the 141's and 147's are, so far Saloons (is there in fact any difference between a Saloon and an Estate chassis? I know two people who say not, can you confirm or contradict this?), all the 142's and 148's are, again so far, Estates, and the few Vans we know of are in the 149 range.

Now you may well argue, and I would be the last to deny it, that as self appointed Registrar of these vehicles, I should be able to tell you all about the chassis numbers, their significance, and breakdown. But I can't, so if you can be of help I would be delighted to hear from you. I have avoided contacting the factory because they have a business to run, and I am pretty certain that they don't have much of the information which we are looking

for anyway. I shall be writing to them this year however and will let you know what transpires.

The Kitten chassis is of course by its very nature, a very good platform on which to mount almost anything you like, and the Fiat 1600cc twin-cam engine and five speed gearbox fitted to Dave Wardman's Estate car in Leeds, shows just what can be done, (90 odd B.H.P.!!). But it is perfectly possible to coax 60 or more horse power out of the Reliant 850 engine without reliability suffering, and unless we are trying to do almost silly things, or just use the car off road, then the Reliant unit will be sufficient for most folk's needs. I know that in the right conditions, Alan's estate, the one dick Watson did the engine for, will top 6,000 R.P.M. in top, which is a shade over 100 M.P.H. Enough really for these little cars methinks!!

Talk to you all again later in the year, by the way the thistle Branch of the R.O.C. is having its 21st anniversary celebrations at the Doune Classic weekend the bank holiday weekend at the end of August, we had 8 Kittens and a Fox there last year, why not come along, drop me a line or give a ring if you are interested, camping and local B & B are easily arranged / available. Alan is in charge of the camp site for '94, talk to him for more details 01505 328114.

**KITREG3.RKR**