

RELIANT KITTEN REGISTER

MEWSLETTER Thirty-Eight

January/February 2001



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

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The Reliant Kitten Register **MEWSLETTER No. 38**

The following individuals have kindly agreed to give and receive information on the following topics on our behalf :

Rebel alternative parts *contact Brian*

Kitten alternative parts *contact Brian*

Fox alternative parts *contact Brian*

Our Mutual Aid Spares scheme *contact Brian*

Mewsletter pictures *contact Brian*

This time our front cover shows one of those rare vehicles, rare on a number of counts, one because it is a Kitten van that has not been converted to an estate car, two, because it earns its keep as a company vehicle in daily use, three because it shares its home with a Fox Tandy camper. Perhaps most interestingly because it belongs to Andrew Norman, and Andrew has what in this day and age has to be an unusual occupation, he makes and repairs concertinas. A member of the Guild of Master Craftsmen he has through his hands some beautiful instruments. Thanks for the picture Andrew.

The Register has a, now fairly old, web page at :-<http://www.uk-classic-cars.com/kitten.htm>

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It should be noted that opinions and ideas printed in this publication are as recommended by our readers, and do not necessarily have the approval of the Reliant Kitten Register. Owners must satisfy themselves as to the suitability of any suggestions made within these pages as no responsibility can be accepted.

Hello, welcome to the new millennium! After such a long edition last time, this will be briefer – I promise.

My thanks to those of you who renewed your subscriptions so promptly, the rest of you, this will be the last edition you will receive until you pay your 2001 subscription – you have been warned!

I was saying to Bill Dick, who was up here from Watford the other week, that this must be one of the very few organisations where people pay their subscriptions before the renewal notices are even sent out! 4 of you did so in mid December, and while I can cope, you will still have received the renewal notice along with everyone else – still, I guess I must be doing something right, when some folk are so keen to remain involved!

You will, it seems, be stuck with me for a while yet, as a number of you took up my offer of protecting yourselves against future subscription rises, and opted to see to it that I feel obligated to produce this nonsense for at least another half decade – so it's not just my fault!! Thanks for your confidence and support.

One point which came out from the renewal forms is that you are keen on having the county included in your addresses – you will be well aware of how keen I am on postcodes. The main reason that I have in the past excluded the county, is actually a software thing. If I include the county, the postcode is printed on the same line of your address label as the county, and I was deliberately trying to make the Royal Mail's job easier, but I will bow to your wishes. (If I'm ever bored and have a couple of hours to spare, I'll do a set of two line address labels just to prove to you how clever the postcode system really is, and one of those two lines will be your name!)

I discovered that I (yes me personally) had a few quid left over at the end of 2000, and I decided, since both the Rebel and the Kitten leak, that I'd invest in a modest dehumidifier, really a household thing, but with an extension lead and the car parked at the door.... Well, it works, dries the cars out beautifully – even keeps the windows clear on frosty mornings (in spite of what the instructions say about it not operating below 5 degrees C!) – yes at 300 watts there will be a price to pay, and possibly by the next edition you'll hear me screaming that I can't afford the electricity bills, but we'll just have to wait and see. Given that the cars lie out of a night now and then, it does help keep them in better order. (Helps keep my conscience a bit clearer at any rate!)

O.K., it has been suggested, and not for the first time, that I talk too much – I know, who would have thought anyone would complain? But there it is – what is it she says – you are the weakest link
.....

REBEL ROUND UP

Dear Brian,

December 2000

After reading John Parker's letter in Mewsletter 37 asking about the door pillar fixing for inertia reel seatbelts I did some investigating and found that on the Moss Encrusted Hut (XWA 369G), which is fitted with inertia reel belts, there is a threaded mounting on the door pillar above shoulder height. This appears to be part of the original construction as built by Reliant, yet my other Rebel (URC 68G) which has a chassis number only 148 later, has the mounting behind the seat just below the side windows – *As indeed have the 9 or 10 that I have owned over the years, Ed* – Perhaps earlier Rebels had the upper mounting on the door pillar and was later changed? – *O.K. guys, in particular those with early*

Rebels, can you help us here ? Perhaps Mark Hayton's Rebel has this mounting on the door pillar too? I wonder how many other Rebels out there have this mounting on the door pillar?

I have read your comments about Rebel front suspension being Spitfire / Vitesse based but I understood the wishbones, vertical link, top ball joint & lower trunnion were the same on the Spitfire, Vitesse and Herald. The only difference being with the Vitesse, whose stub axle is a larger diameter at its outer end to accept the longer hub bearings fitted to this car. This longer size stub axle is the one fitted to the Rebels but this does fit the vertical links from Spitfire/Heralds as well. I enclose a copy of the relevant pages from the Herald, Vitesse and Herald workshop manual to hopefully make this more clear. I also believe that the brake shoes and backplate fitted to the Rebel uses the Herald brake drum and is the hub of Reliant manufacture or perhaps a modified Triumph part?

The information I have regarding the tie rods is :-

Quinton Hazel QR 1120 (R & L/H thread) same as Reliant 7146 & 7147. These are the ends that fit on the long rod between the steering box and the idler. (Also used on BMC A60) Quinton Hazel QR1353 (R & L/H thread) same as Reliant 7148 & 7149. These are the ends which fit on the short rods each side of the car, linking the steering box to the hub steering arm on one side and the idler to the hub steering arm on the other. I understand the difference between the two types is the diameter of the taper pin.

The Moss Encrusted Hut (XWA 369G) is still in regular use and is running the same engine, but it is increasingly breathless! The engine number I supplied to the Register is the one listed in the log book and not the one actually fitted to the car. I have corrected the number on the renewal form.

I haven't had a lot of time to carry out much work on the car. In August 1999 I fitted a pair of cloth covered reclining seats from a Mini, much better than the seats which came with the car.

In October 1999 I was involved in a minor road accident, fortunately no personal injury, the only damage being a few splits in the driver's door but it still opened and closed okay. The other car looked a lot worse with damage to the front wing and both doors. The insurance company paid for the repair to my door, carried out by R&J Motors, Raleigh, Essex, who specialise in repairing fibreglass ambulance bodies. They did an excellent job and the door now looks as good as new with a lovely shine, the problem is it doesn't match the rest of the car now!

In June 2000 I visited the R.O.C. Southern Area Rally at Henley-on-Thames, there were 4 Rebels attending. The Moss Encrusted Hut (XWA 369G), Fred Heath with his saloon (WPC 92G), Bob Neal with the ex-Bob Dormor estate (FOW 578L) and a yellow saloon (SUK 322L), which arrived minus its windscreen after being smashed on the journey. I didn't get the name of its owner but I did give him details of the Register. Bob Dormor had his smart yellow Kitten van (CKR 379T) and Brian from Reliant Express was there with his Fox and Bob Hunt with his Fox too. There were some other Kittens and Foxes there as well, but I am doing this from memory and June seems a long while ago and I can't remember which they were.

The Moss Encrusted Hut won the 4-wheel Reliant manoeuvrability competition and the wheel change competition, also receiving the award for the scruffiest vehicle. This is the 3rd year running now, perhaps I should get the rest of it painted to match the driver's door? I believe Fred Heath won the concours competition for the best Reliant, so all round it was a good day for Rebels.

During July I went to the Great Eastern Rally at Ingatestone Hall, Essex, organised by Adrian Hanwell, where I was given an award for "The Most Intriguing Paint Finish", can't understand why!

I must finish now as it is now Christmas Eve and any thought of getting this to you by Christmas has gone. So I hope you, Moira and Arleen enjoyed Christmas and I send you my best wishes for the New Year.

Bruce Emery - Leigh-on-Sea

Thanks for that Bruce, see folks, I didn't interrupt him once ! But seriously Bruce, less modesty, it was you as much as the Rebel that won the event – well done, and all you other Rebel folk who fly the flag to such great effect. Keep up the good work,.

Purely in passing, I did a check the other day, 13th of January in fact, and we have 99 Rebels on the Register – don't get too excited, that includes some known to have been scrapped, but is fast approaching a milestone none the less !

Now, this is tricky – do I put Mark Hayton's Rebel seatbelt article in here, or in the technical section – oh I'm here just now! Thanks Mark.

The Rebel Seatbelt Conundrum

It seems the addition of retractable seatbelts in the Rebel has caused considerable discussion. I hope the following will shed some light on the hows and whys.

When we got the car, it was equipped with just the standard factory fitted front Britax belts. As it was to be used for carrying the children around, rear belts were a high priority in a short space of time. Also, as both of us would be driving the car, easily adjustable belts would be desirable - for those who don't know us, I'm tall and slim and she's short and, erm, well, short. The rear belts were easy - use the old belts from the front and fit them in the back. As explained in Rebel Yell 2, the stalks neatly bolt onto the chassis, and as they are relatively long (around 12 to 18"), almost protrude neatly between the seat base and back. This is where I had to extend them slightly, so that if the rear seats were ever folded down, the stalks wouldn't do a vanishing trick below the seat.

The front belts required a visit to the local scrappy. The problem here is that, although he has a large and wide ranging number of cars, he's not too keen on strangers wandering around 'his' cars willy nilly taking bits off them. As a result, it is a case of twenty questions and get what you're given. When I was found sniffing around a nice pair of Mini belts I was almost frog-marched off the premises aided by a not so friendly Rotweiller. A bit of grovelling gave me a reprieve and a telling off on the provision I did as I was told. So an early model Fiesta it was then. It's not because they fit, it's because that's all I was allowed to have.

What I wanted to do was to have the reel on the floor, bolt the pivot onto the existing shoulder mount and then bring the webbing over the shoulder and down to the stalk behind the handbrake (see Fig 1). However, when Maureen is driving, the seat is right forward and she has a cushion behind her so that her little legs can reach the pedals. Unfortunately, the Fiesta belts were not long enough to take this route. As the original belts were mounted behind the shoulder, it was decided to fit the reel there (Fig 2).

One problem - the reel locked on when it was taken out of the vertical (anyone ever had trouble in a car with the seatbelt not working when you're sitting on a hill?). To stop it doing this, you have to do some surgery to the seatbelt mechanism. A word of warning - if you're not confident or not sure, don't do it. To start, remove the thicker cover on the reel. This is held on by small Torx type screws for which you will

the past couple of years – Well done Dave. The rest of the conversion / construction story any time you feel like it – or will you too be too busy doing competitive things? – what about that good lady of yours putting pen to paper? Please nicely....

Still with competition in mind, but moving over now to Liege achievements:- First competition entered was the 1995 MCC's Exeter trial on January 6th / 7th . Its first success coming a few months later in the 20 hour Lands End Trial, taking a Bronze. Then a remarkable win in the 2 litre GT class in the Le-Jog - your Editor was even marshaling one of the controls, and saw it go through !

In 1996 the car was taken to southern Morocco for a test run, 6,500 miles taking it to the edge of the Sahara desert, and the Atlas and Pyrenees mountains. 50 M.P.G., and never missed a beat.

1997 and Gari & Nathan Jones took a Gold award in the run to Marrakesh. A 5,000 mile endurance trial.

1998 saw it complete a 6 hour endurance run at Mallory Park, 219 laps completed in the time.

1999 and Gari & Do Jones won Gold again, this time in the Liege - Targa - Liege run, from Liege in Belgium to Targa Florio in Sicily, and back !

2000 and Gari Jones and one or other member of his family took part in a number of events including the Exeter Classic Trial, and the 20 hour endurance tour of Wales, in which Dave Holroyd won the self built class, and then promptly took his Liege off on holiday to the Alps and Lake Garda, well, actually the Liege took him !

Howard Blackwell and Simon Robson were by now entering events including autotests, production car trials and Classic Trials.

A Liege has finished in the Easter Lands End Trials in '95, '96, '97, '98, '99 & 2000

No list of liege event successes would be complete without a mention of the Edinburgh Trials, where in October 2000 Gari & Do Jones successfully climbed all the hills, and Simon and Matt Robson won a Bronze.

2001, A Case Oddity - Who killed Cock Robin ?

It is general knowledge that Reliant Engineering Ltd. was launched by Tom L. Williams in 1935 to manufacture three wheeled commercial vehicles based upon motorcycle components. In March 1938 the vans were fitted with 748 cc 4 cyl engines supplied by Austin. Later that year, when supplies ceased, Reliant replaced the Austin engine with one of their own design, based on the Austin unit. The war intervened before many of the Reliant engined vans could be delivered. After the war the van grew up a little with pressed steel wheels and glass side windows but still retained motorcycle front suspension. A decision was made in the fifties to move into passenger cars and a coach built, aluminium over ash, open 4 seater was built alongside the vans. The introduction of fibreglass bodies was something of a pioneer venture but was suited to the Reliant production methods. Convertible bodies were discontinued in the sixties and the vans and saloons shared similar bodies. Now owned by the Hodge Group Reliant moved into four wheelers and guided by its able manager Ray Wiggins expanded its premises and workforce to the point where by the mid seventies, 3,000 employees were producing up to 500 vehicles a week.

This was the period of peak production for the recently introduced Robin. The many pre war motorcyclists, now in their fifties and sixties were looking for all weather comfort and cheap travel. It was at this time also that motorcycle use was in steep decline and this heralded dark clouds on Reliant's future, despite its investment in four wheelers and advanced engineering projects. The Kitten had failed to make significant penetration into the small car market and by the end of the seventies the GTE was threatened by the demise of its Ford mechanics and expense type approval testing. By this time Ritchie Spencer was M.D and a new 3 wheeler, the Rialto, was introduced. Sales were in decline. Hopes were pinned on a new sport scar, the SS1, and a huge investment was made into press formed plastic body panels. The car was a disaster from day one. Despite having a very competent chassis, the body shape lacked sales appeal, and the small Ford engines were rough and underpowered. In the late eighties a new hatch backed 3 wheeler was introduced and re named Robin. Metrocab was purchased from its troubled makers in an attempt to keep the Reliant plant alive that already built body shells. Reliant was now owned by a property company and steered by Cyril Burton as M.D. Like many other organisations in difficulties, bottom falling out of the housing market, Reliant started selling off the family silver. The GTE project was sold to Middlebridge, and the new factory premises to a furniture manufacturer. Most of the factory machinery involved in the manufacturing of the three wheeler mechanicals was worn out or obsolete, and an arrangement was entered into with Beans Industries of Tipton to machine and assemble the three wheeler mechanicals on behalf of Reliant. In the 20's Beans had been vehicle makers, and had vast experience of component manufacture having been responsible for producing remanufactured major units for Triumph, Rover and BMC.

Unfortunately for Beans, Reliant was already in serious trouble, and within a year was in the hands of receivers. Sales of the three wheelers having fallen to 10 a week, and taxis struggling to find a place in the market. Many months passed with the company in limbo. The Metrocab plant was sold off as an entity, and, eventually, Beans bought Reliant in an endeavour to recoup their losses from the abortive sub contract deal.

Now with Lou O'Toole of Beans as M.D., Reliant made strenuous efforts to jack up their sales by intensive pressures on the dealer networks, and a development programme on the SS1 to make it more customer friendly. Within a couple of years with sales of the Robin reaching 25 – 30 per week and the SS1, now called the Sabre, fitted with a Rover engine and given a facelift, the Reliant future was looking more rosy. Extra revenue had been raised by selling the Fox project to a Russian consortium, and engines were being sold for incorporation into portable fire pumps. A move to mould and paint the Robin bodies at the Metrocab plant proved an expensive failure, and the tooling was shipped back into Two Gates. At this time Beans raised capital by selling the Two Gates site to a local developer who, in turn, rented it back to them on the understanding that in due course Reliant would re-locate. Sadly, a power struggle was now in process within the Beans HQ, which, together with the withholding of funds by a major Bean customer, was to tip the company over the financial edge taking Reliant with it. A proposed 2-litre turbocharged Sabre and a light truck were lost. As with all administrated businesses, valuable personnel were lost, as were many business assets during the period of limbo before a new owner could be found. This was to happen at the end of 1994.

Peter Hall was now in charge, and started re-installing ex-Reliant machinery returned from Beans which was out of date and in poor condition. In order to maintain production many pre-used components were incorporated in axles and gearboxes. Poor cylinder head and manifold castings had reduced the power of the Reliant engines below the published output. The new machine shop displaced the Sabre assembly area, so the completion of the few remaining cars brought sports car production to an end. A dalliance with expensive development of the long deceased Bond Bug was not a good idea. On the plus side parts marketing through Unipart was discontinued allowing availability of vastly increased income from an in house source. Financial resources remained stretched and were not helped by the acquisition

READERS LETTERS

Dear Brian,

Christmas 2000

Rob and I are still tandeming to work each day. We've avoided the recent floods at home, but have to cycle through a foot of water on the way to work at the moment, those cars which disregard the "Road Closed" signs creating waves to drench us. We've ended up with a foot in the water a few times. Rob's been eyeing up that new Alex Moulton New Series Speed with interest, but at £5699 I reckon it's a bit steep!

Hanwell Community Observatory (HCO) has been taking up more and more of our time, Rob forgot the NO word when they were looking for a Secretary! We've been involved in working parties to carry rails, dig holes, as well as organising public star gazings. Hasn't left much time for actual astronomy!

The worlds largest set of meccano (or U.K.'s largest, world's fifth largest refractor) other wise known as the John Wall Telescope is at HCO in pieces awaiting assembly as soon as I have dug all the holes for the foundations! The RGO website is still claiming to have the UK's largest refractor (how dare they?) but I don't suppose we'll break the news to them till the last bolt's tightened. Our flagship Millennium Telescope meanwhile is progressing steadily towards completion. We'd planned to have it up and running by now, but things always take longer than expected. The mirror's complete, but not yet delivered. It was specced sixteenth wave, initially claimed to be twentieth wave, but now it's more conservatively rated at eighteenth wave. That's very good by the way! The rest of the optics and frame work are pretty much complete. Why not take a look at our website if you're interested www.hanwellobservatory.org.uk

Earlier in the year we took the plunge and bought a new car for the longer journeys. Don't worry, Nermal the Kitten is still alive and well, living outside the cottage as always, and ferrying us to and fro locally. We went up to Skye in the summer, *You never called in to see me – Ed!* and the thought of going that far in the Kitten was keeping us awake at night! *I can't imagine why* – The new car is a Micra, but we don't want to tell you about that!

Hope you have a great 2001 Rob & Fiona Wilkes - Oxon

Thanks Rob & Fiona for keeping us up to date. Every once in a while, I do have a dissatisfied subscriber – I know I am far from perfect, but I do the best I can, however I thought it only fair to reveal an other side of the story as expressed by Bob Dormor of London – thanks for your comments Bob, and my apologies for spelling your name incorrectly in the past, Brian.

Dear Brian,

January 2001

Very disappointed with the renewal notice you sent. You have failed to include my yellow van that I informed you about in 1998 along with photos, and you wrote about in one of the mags.

I do hope you can get some kind of order into the Register as this is the main object of the Kitten Register, to keep track of the cars and their location. Probably towns rather than postcodes. I look forward to seeing the Register when you get round to it. I will renew this year.

All the best, Bob

'feel better', but from a technical point of view, different slave cylinder bore, I fail to see how it can make them actually work any better. Personally I like the servo idea, any comments people?

~~~~~

## **From the In Tray**

As you will probably be all too well aware, my processing of the paperwork has in the past been less than perfect. In an effort to yet further reduce those bits of paper which seem to be so attracted to my desk, I have adopted a new policy for the new millennium. Hence this new section of the mag. I hope it will only be a page or so, less at times even !

I have decided, in an effort to have my files fill more slowly in future, to return to sender the invitations that I receive as Registrar of this organisation – gosh that sounds posh and professional – me organised ! Anyhow, the upshot of this policy is that I will mention much of the mail that comes into the above category, in here, so that you can decide if it is of interest, and if so, act accordingly.

As you will by now have realised, my question on the original application form – now removed, which asked if your car was available for motoring events, was very misleading. It implied that there were events, and of course there are, hundreds of them, it's just that I don't organise any. I never really had the intention of doing so, though I would consider encouraging others to do so if appropriate. There are plenty of other organisations out there which do that kind of thing very well, they do not need my help. I will concentrate on what I do best....

The thinking behind the original question was, when I am asked to provide a vehicle, or a knowledgeable individual, for an interview on radio or television, or indeed anything to do with the motoring press, I would know who to approach. This does not happen often, but when it does, these people tend to want it done yesterday, well today at the latest, so it has to be a matter of telephone calls, and if I know who might be available, or perhaps more to the point, who is not, then it can save me a bit of time, and wasted calls – selfish sod that I am !

So, background covered, the first one to fall into this category was the very professional, colour invitation to the Wigton Motor Club's Cumbrian Classic Weekend on the 18<sup>th</sup> & 19<sup>th</sup> of August near Ullswater in the Lake District. It sounds like great fun, as do many of these events, anyway, if you are interested Graeme Forrester of Clints Cottage, Blindcrake, Cockermouth, Cumbria CA13 0QP is your man, or for those on the net [graeme@gtforrester.freeserve.co.uk](mailto:graeme@gtforrester.freeserve.co.uk)

Just at the moment I can't remember which of our subscribers it is who is involved with that Club, but my thanks for keeping us informed whoever you are.

Slightly different topic now, but still I feel appropriate to this page. I am often approached by companies making me aware of their services. Sometimes I think I should have a standard letter, and send it to them with details of advertising charges. But I really do not want the Mewsletter to become full of adverts, other than the few specialists who support us. However, the odd one does sound interesting. Alternative Vehicle Inspections for example, is run by Steven Lee who has an impressive sounding pedigree including time spent with the A. A. and the Essex Police. Currently a member of the I.M.I. and I.R.T.E. as well as the M.S.O.E and the Society of Expert Witnesses, he offers a range of vehicle inspection services, and if you are in that market, you can contact him by telephone on 01268 773580 or by looking at his website at <http://freespace.virgin.net/stevelee.avi/index.htm>



## Get Swinging !

At my age a near impossibility! However your car doors should swing with ease. Or do they? How many times have I tried to close a door on a car and it moves stiffly with a squeal that sets my teeth on edge? Too often.

I think about days of yore and the Rebel 700 estate. When bought, this had a stiff rear door which I ignored till a hinge pulled right out of the body. OOPS! It took a visit to a bodyshop and an empty wallet to get over that problem.

So, the moral of the story is **OIL THOSE DOOR HINGES REGULARLY**. The Kitten's drivers and passenger door upper and lower hinges have a small countersunk hole in the hinge body at the hinge pin end. Clean up the hinge, then poke the flexible spout of a pump action oil can into this hole and give a squirt. That's sorted! Now put a drop of oil in the bumpy bit that keeps the door open.

On an estate car, put a drop of oil at the top and bottom of the moving part of the hinges on the back door, and move the door to and fro a couple of times to work the oil into the joints.

You still have the oil can in your hand? Good, Open the bonnet and top up the carburettor dashpot to ½ "above the top of the hollow rod and piston. It can work wonders for a smooth running engine – *Sorry to interrupt here Dick, and oil is better than nothing, but either 3 in 1 or automatic transmission fluid is great in here, and I know that the experts among us will tell you that we ought to use different viscosities of damping fluid at different temperatures / times of year. But come on, lets be honest, how many folk actually strip their SU twice a year and refill it with the appropriate stuff – I know I don't, Ed.*

Now for a cup of coffee before greasing those ball joints. Isn't it fun running an older car?

Dick Goodall – No. 157

## R K R Notes

As Dick Goodall took over the last Mewsletter, this squeezed my few words out, so with a bit of luck I will get two goes this time. – *Now hang on a minute Al – as I pointed out at the time, Dick writes to me frequently, and I published less than half of his correspondence in the period involved, so you are still getting a fair share of the space available believe me, Ed. That said, Al had sent me an earlier article, which I put somewhere safe, so I rang him to ask for a copy, which he faxed to me that evening, except my fax machine film ran out after just a few lines, and it was late, and I'm out of time and space, next time, Al, honest.*

Now that the last engine fitment seems to have settled down here are some thoughts. Fed up doing tappets ? Not that one has to do them very often, once a year should be enough, but turning the engine over, wrapping your knuckles on the fan / radiator etc is no fun.

THIS IS WHAT YOU DO. Remove the bonnet by knocking out the hinge pins (*best not done in the middle of winter, or in very cold temperatures at any rate, or you risk breaking the hinge itself Ed*) (Note that they only go back in one way). If you tinker a lot then replace them with 2BA bolts and nyloc nuts. I've often wanted to fit go faster boy racer pull pins in this department, but then of course you could have unwelcome visitors under the bonnet!

Back to the plot, remove spark plugs (you were going to do a compression test anyway) engage top gear (handbrake off) now by pushing the car forwards or back you can have the tappets run up and down with minimal effort. Turn the engine till tappet No. 1 is fully open, you then notice that No. 3 is just about open. Here comes the clever bit, juggle the engine until both 1 & 3 are about fully open, you can now adjust the gap on 8 & 6 without having to move the engine! Clever huh! (*That's fine if you are fit Al, but I'd lean on the car, and it would roll – unless of course I hadn't taken the bonnet off, then I'd be standing at the side, and could trap the front wheel between my feet! Ed.*) Gap? as standard is 6 thou cold (10 thou hot) then it is straight forward. Except that what is HOT and COLD? I have always thought that even if you had run the engine, to change the oil, Hot, by the time you'd found the spanners, had a cup of tea, and taken the rocker cover off, plugs out, and perhaps removed the carb, then the engine was cool enough to work on. I considered this COLD.

Then there are those with go faster camshafts, where one set of figures are quoted ( temp ? ) but this time the inlet and exhaust are different, and with this system you are doing one 'Ex' and one 'In' together, so watch your feeler gauges ! In fact I use two sets, it's easy to see whether its 'In' or 'Ex', look at the manifold. So to recap so you can follow it as you do it :-

| Fully open | Adjust |
|------------|--------|
| 1 + 3      | 8 + 6  |
| 2 + 5      | 7 + 4  |
| 6 + 8      | 3 + 1  |
| 7 + 4      | 2 + 5  |

Now wasn't that less painful? What other pearls of wisdom have I thought up? How many tools do you need to change a Reliant engine, (and how long does it take?) 7, yes seven!

|                                                |       |
|------------------------------------------------|-------|
| Combination spanners 7/16, 1/2, 9/16           | 3 off |
| 3/8 drive ratchet + extender 1/2, 9/16 sockets | 2 off |
| Medium screwdriver`                            | 1 off |
| Pliers`                                        | 1 off |

The screw driver is for the choke and throttle cables, and the hose clips, (although a specific 'bendy' socket tool is best, saves slipping and gouging, and gets into funny angles) Pliers are to hold the clutch cable to let you undo the lock-nut (7/16). Starter cable is also 7/16. The rest you know.

Time? Once when we had to move a chassis to a new destination, we fitted the engine just for the drive (100 miles) We then needed the engine out and into another car, so two of us, knowing what we had just bolted in, and while still warm, pulled it out – one worked on each side! 20 minutes! Engine sits on the floor, almost still throbbing in this case! Don't you just hate smart asses like us? (When you are there with rusty broken spanners, lost nuts etc.) Bye till next time. P.S. I nearly forgot the piece of rope to lift the engine out!

Al Osborn – Thetford

*Well Al, I believe it, because my brother Alan and I once took an engine out of a Rebel, having just driven the car 50 miles, in 23 minutes – No no, not driven the car 50 miles in 23 minutes ( though Jim Spence's Rebel could very nearly do that if you ignored the speed limits ! ) Took the engine out in 23 minutes - not as impressive I know, the less so when you remember that the Rebel clutch does not come into it, not on the 600cc and 700cc ones anyway ( the 750 had a hydraulic clutch, and so you did have to disconnect the hydraulics, as the master cylinder mounts on the chassis and the slave cylinder*



Wanted :- Reliant Kitten, a good example required. Contact Ken Bowden

Wanted :- Early Rebel gearbox remote linkage, complete with gear lever. Contact the Registrar ( for Simon the ex-Tempest now Liege man )

Wanted :- Kitten bonnet, Brian Millar

Wanted : Late Rebel gear lever, the long one, Mark Hayton

Wanted :- Fox, Cash waiting, most things considered, preferred running. Contact David Butler

Wanted :- For Rebel 600, front and rear windscreens, and all side glass, and doors, also boot lid.

## NOTES

Well, that was an interesting exercise! The invitation to you all to make known your e-mail addresses (part of the renewal notice this year if you remember). Those of you who are not really into all this modern technology can rest assured that you are in the vast majority as far as subscribers to the Register are concerned. If you assume, and I think that it is not unreasonable to do so, that those so equipped are not of the light hiding under bushel brigade, then I can confidently say that there is a large market for the expansion of internet access, certainly amongst Kitten owners! For those interested in statistics I make it about 18 % of you have e-mail addresses. So we'll be hearing a bit less about computers within these pages in future!

That said, and thanks for the suggestion Guy, I have been asked if I could include the e-mail address along with articles and letters in the mag. So, if you have no objections, and obviously providing you have such a thing, I will seriously consider doing so in future, but by the same token, given that only about a fifth of us have such a thing.... Well, you get the picture.

That said I really couldn't do this – the mag. - without one – computer -, and the magazine would be the poorer if several subscribers didn't have access to them as well. But clearly the vast majority of you do not use them, at least not for internet access. Perhaps that will help explain to those who are surprised at how low that figure is, just why an organisation like this is still so important. It will, I suspect, be a very long time indeed before Consignia replaces the Post Office! - Royal Mail Rules O.K.!!

A late entry for the new 'In Tray' page is an invitation from the Derby Daily Telegraph to their Derby Motorshow on Sat. & Sun. the 7<sup>th</sup> & 8<sup>th</sup> July, contact Caroline Lowe on 01332 253014 for details

Oh, and as to the mysterious Geister that a couple or so of you have commented on, just read and digest every word I write and you will know – see Mag 36 page 22 paragraph 1, and pay attention in future!

Right, thanks John, the covers arrived a couple of days earlier than I was expecting them, so a quick check, and we're off to the printers, sorry Hannah. Hope this finds you all well, and coming out of hibernation soon.

**Brian**