



Reliant Kitten Register

NEWSLETTER 86

January - February 2009



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

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Fox alternative parts list contact: Duncan Bradford,

Our Mutual Aid Spares scheme is run for us by Phil Hallam

Tempest Registrar: Martin Seymour

Mewsletter pictures – should be sent to John Pearce

The Register is a member of the FBHVC, which monitors UK & EU legislation and lobbies on our behalf to protect our freedom to use vehicles of all ages on the roads. Readers are invited to show their own support of this worthy cause by becoming members in their own right. Contact the editor for details.

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

Dinky Cars

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**SALES, SPARES, REPAIRS,
ENGINE RECONDITIONING**

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Our first front cover of 2009 shows what is I am sad to say is fast becoming a pretty rare creature, especially in Scotland, an almost original looking Kitten. Not only that, but one that has been with its current custodian for well over a decade, and has been maintained to a very high standard. The 12" wheels are an obvious departure from the original, as are the, less obvious in this picture, high back front seats. Under the bonnet however it is pretty much as it left the factory. Rebuilt on a new Fox galvanised chassis and with a stainless exhaust, and a good respray. This fine example of the marque is looking for a new home. See the adverts page for details and its interesting service record.

Sometimes I wonder, I often watch University Challenge on the television, as time goes by – another song title – I used to be distracted by them – back to University Challenge. On a good week I could answer the odd question faster than the competitors, but in recent times I have managed two, or sometimes even three! Yes I get the odd one, of the few I think I can answer, wrong, but back in November in the first game in the second series, LSE, the London School of Economics, were playing Selwyn College Cambridge (Just how many Colleges does Cambridge have anyway?) for a place in the quarter finals and in true Victor Meldrew style I really could not believe it, when not one of the 8 brains on the programme recognised a perfectly clear picture of what I would have called a well known and much loved actor – it must be a generation thing, but they really did not recognise James Stewart, he was their starter for 10. I will resist the temptation to fill the rest of this page, and the next, with the names of films he has starred in, but have none of these brilliant youngsters really ever seen the Glen Miller Story?

Rashin Patel from Essex is a young man to watch, his ability to anticipate and interrupt with the correct answer will I am sure draw him to the attention of the kind of people who watch that programme in search of the really clever people out there that specialist firms will want to be employing in the future. (Either specialist firms or the likes of MI5 or MI6!)

Oh, if you were wondering, the LSE team trounced Selwyn by 270 points to 135.

Back to my wonderings, am I getting more intelligent over the years, or are the questions getting easier? Answers on a postcard please!

Back to our cars now, Terry Horler is, as I am sure you will know, taking a leading role with the Rebel Register for us these days, one result of which is that I have spent a little time in November looking out dates of first registration for him. That proved to be an emotional (and somewhat harrowing) experience. It brought home to me how many Rebels I have had a hand in saving and or finding new custodians for over the two decades plus that I have been involved with them.

I do sometimes wonder just what defines a suitable custodian for one of our cars? I firmly believe that John Melody is one. I know that John is – one needs to consider adjectives carefully, but somewhere between upset / annoyed or frustrated probably comes close, to his feelings when confronted with comments on the internet which are less than complimentary of the kit car industry when it comes to using our beloved wee cars as donor vehicles. I happen to know however that when John acquires a car, if there is any way it can be made roadworthy and sold on in its original form, he does just that. I know of several Reliants that John has had through his hands in recent years that he has worked on, made good, put through an MOT and sold, rather than break them up to provide parts for the Tempests he makes. So negative comments in his case are not only hurtful and in some cases offensive, but totally inaccurate!

I used to be of the opinion that anyone who I sold a Rebel to had to keep it for a very long time indeed to have any chance of qualifying as a “worthy custodian”, but then I looked closer to home and revised that opinion. Anyone who improved one before selling it on was surely a good guy, just as important to the long term survival of these wee cars as the owner who keeps one for decades. Let’s face it, Fred Heath, Phil Hallam, John Blagburn, and a very few others excepted, who have kept the same Rebel, on the road covering more than a thousand miles a year for year after year are rare, and fortunate individuals indeed. (Fortunate because of the driving pleasure they derive from using a Rebel). Then again, is such an individual any better a custodian than Robert Fairfoull, whose Rebels do not cover 50 miles a year between them, or Michael Bentley

whose very tidy example has not turned a wheel on the road in close to a decade? – and he has owned it from new don't let's forget!

Of course I have ignored those Rebel owners and users whose Rebels are no longer powered by Reliant engines, and is that fair?

So, are we any closer to defining that elusive creature – the “appropriate custodian”? Do we award points for effort? or just for results? That may sound like a daft question I know, obviously as far as the cars go, it is results that matter, but more on that subject in the Rebel pages – do you remember in the early days I promised them (Rebel owners and enthusiasts) a regular page in the magazine! That certainly grew arms and legs!

It is now the third of December, we got the Christmas mag in the post last week, and renewals are now arriving daily, also a number of interesting e-mails, I know I don't advertise my e-mail address, and those who do not have it can contact me that way through the web site if they want to – kitreg.org.uk But, thanks to Adrian Hanwell in particular, this edition just might be as big as the last one! It is entirely up to you if that continues, I could just serialise the big articles, but if you send me sufficient quality material, who knows what we might achieve in the way of deforestation this year, well 2009 at any rate!

Oh, I just read a copy of the last edition, you must have really thought I was losing the plot, I mentioned quotes on the first page, but they were not there! nor were some of the apostrophes, I did take this up with the printer as they were all there in both the electronic version I gave them and on the hard copy I provided them with, that's the second time they have let me down recently, I will need to keep a closer eye on such matters in future, sorry.

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Rebel round up

REBELLIOUS CONDUCT 15

By Terry Horler

I've just had an idea. I am member No 755 and this is Rebellious Conduct 15 (RB15). I am writing this on the 10th of December 2008 (10/12/08), and to this date have covered 18,000 miles in my 1972 Rebel (LRF 671K) at an overall average of 44mpg – I could simply abbreviate all information as –

755, RB15,10/12/08,18000,1972LRF671K,44.

Now how would that be for a concise introduction format in future? Yes, I thought so too! No, back to the traditional means of boring you all onto the next article in Mewsletter.

As reported last time, the gearbox replacement is still hovering on the jobs to be done list. I had hoped to do this in September but too many other things got in the way and now we are into the 'off season' as far as mechanics al fresco are concerned. Well, as far as I am concerned anyway. Then LRF decided otherwise. Last winter, the starting performance of LRF became decidedly shaky. Only once did I have to abandon it but quite clearly, something was wrong. The

usual check of points, plugs, connections and fuel system revealed nothing obvious. As long as I pulled the choke out slowly as the starter was operated, it would just about start. Before I found the answer, the winter turned to spring and summer and all was well. But now we are into the winter again and LRF soon returned to being an obstinate starter – I had to find the answer. Again, all the usual checks provided nothing obvious so it was down to clutching at straws, or in this case, seeing what was in the box of spare parts. Ordinarily, I would only change one item at a time; this being a methodical means of diagnosis. However, it was too damn cold to be methodical so the distributor cap and coil were swapped with cleaner looking items from the box. The replacement coil had a ‘push in’ rather than ‘screw in’ connection for the HT lead, so I made up a new lead to suit. So with 3 items changed, for no better reason than that was what came to hand – it worked. LRF is now starting nicely once again. Should I feel proud of my efforts or was this just my lucky day? Whatever, I still don’t know if it was the distributor cap, the coil or the interconnecting HT lead that was to blame.

The next problem was far easier to diagnose, a smell of petrol from under the bonnet. This was emanating from the fuel pump. The inlet hose had leaked before so I first checked here and fitted a new clip – and still there was a leak. So then I checked and made good the outlet hose – and still it leaked. The fuel I could see forming on the pump body was coming from the crimped joint between the upper and lower portions of the pump body. It seems as though the crimping had lost its grip of the situation and was being overcome by fuel pressure. The AC pump fitted to the 848cc engine is an unserviceable item and my box of spares was of no help on this occasion. Phoning around for a new pump proved futile. A local Reliant specialist said they would phone me back – they didn’t. I sent an email to Reliant Parts World, no reply there either. I had even thought of robbing my Sprite of its SU electric pump as I had desperate need to use LRF later that day. The solution was very simple. A large hose pipe clip placed vertically around the upper and lower portions of the pump body pulled it all together again. I placed a short strip of steel to bridge between the inlet and outlet bodies with the clip pulling down over this. Hence, all the crimped joints in the pump were re-tensioned in one go, and it worked.

However, these two fixes have failed to address another problem which has manifested itself recently. Although the engine will start o.k. when hot, it suddenly doesn’t want to provide any power for several seconds. It seems that heat soak in the float chamber is upsetting things and it needs a squirt of cooler fuel to restore normal service. Quite why this is happening now when it never did in the past is a mystery. A clue may be in that my Mk1 Escort GT is doing exactly the same thing. Has the composition of unleaded fuel changed in recent months I wonder? Neither of my Sprites seem to be so affected so is this a marginal condition dependant on how much heat can radiate into the float chamber? A possible solution may be to fabricate a better heat shield or to turn the carb through 180 degrees so the float chamber is further away from the engine – any ideas out there?

Other than this, a change of oil and filter and its fingers crossed that LRF will not require any further attention until the weather improves.

Terry Horler - No. 755 from Bristol

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Foxes Den

Quick Release Fox Bonnet *by Les Smith*

Having become fed up with my Fox bonnet flapping about in the wind, coming off its stay, and slamming shut, I decided to convert it to a quick release bonnet.

My main objectives were to ensure the lock still secured it, and it would not blow off while driving.

I realise not everyone will want to cut their Fox hinges, but if you do, read on.

Material, 2 X M6 Stainless Bolts, M6 Tap and file. Optional Lathe or Grinder.

First the heads were cut from M6 bolts and threaded section the width of hinge centre section was left with either side turned down to M5 or ground/filed if no lathe.



The hinge section was then tapped M6, no drilling is required this can be done in position, make sure you keep the tap square using a small adjustable spanner to turn.

The outer section of the hinges were then cut straight down to line up with pivot pinhole then cleaned and squared off with a file.

The pin was then screwed in and secured in hinge centre with super glue.



A test fit showed the centre section of the other hinge between the outer leg parts needed a slight amount filed off, allowing the hinge parts to latch together freely.



Testing again after showed the hinge to latch together in vertical position and to drop freely to the locking position. Pin width was then cut off either side to match the hinge profile and cleaned up with a file.



Final result. Note existing damage around hinge area caused by flapping about over last 24 yrs. Now the hinge is secure in closed position and bonnet lock is still effective. Hinges cannot lift because slots are cut down in each hinge.

To remove the bonnet just open to the vertical position and push back towards engine bay and it unlatches. Replacing is the reverse procedure. This makes for bonnet removal in seconds, allowing better engine bay access, and the bonnet can be put out of harms way. You no longer need the stay which may (and does) unlatch in the wind. Despite having to cut the hinges, I myself prefer this set up, purists may not.

Hinge Update

After a few weeks use one of the lug hooks broke due to the poor quality of the original hinge casting material.

It was decided to purchase some quality aluminium bar and fabricate half hinges to the same measurement as the original. The photos are self-explanatory and the construction is along the lines of the original except they now slide in sideways (no hook) and the bonnet stay can be used without unlatching.



As can be seen they consist of “half hinges” with pivot pin and are now of solid bar construction instead of cast construction. I still prefer to be able to “whip off” the bonnet when required, for easy access to engine bay.

Les Smith.

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Liege Page

I only put this in here because it is a while since we have heard from you chaps. I know that John and Mel do a great job with “Liege News”, and you are well served there, but I am aware that we still enjoy a number of Liege owners in our ranks, and your input is always welcome. The following from Bill Hansen, who built Bob and Judith Riches’ Liege, which now resides with them in Australia, is self explanatory :-

Dear Brian,

5th December 2008

I think, regretfully, the time has come to say cheerio and leave your wonderful little group of enthusiasts. I do not see Peter Davis nor his band of merry men since he moved 'the works'.

I was with Bob and Judith Riches in Oz recently and they send their regards. The Liege is performing well. I do not think I am going to start a Kitten project.

Thank you for the entertainment and your enthusiasm, long may it last.

Regards Bill (Hansen) - Pershore No. 457

Oddly enough it is December the 15th as I type this, and I am this very afternoon meeting up with my uncle, who lives in Dalgety Bay in Fife, which is where Bob took me in his Liege a few years ago to see the yacht club house that Ken (my uncle) had been so involved with building a large extension on. Strange sometimes how aspects of one's life can be threaded together is it not? Ed.

Then early in January I received a letter from Bob and Judith, part of which reads as follows :-

Dear Brian and Moira,

28/12/08

I am a little late with my good intentions but still within a reasonable time to wish you and yours all the very best for 2009.

In November we had the pleasure of hosting our very good friends Bill and Pam Hansen from Charlton Worcs. You will remember Bill as the main figure in the construction of our Liege, and he thoughtfully brought with him several fairly recent copies of your Mewsletter to bring me up to date with your doings. I immediately felt the urge to write to you but thought I should read the printed word before doing so, finding the time was the difficult bit.

Reading now complete, I have been delighted to see that enthusiasm for the small Reliants remains high, as does ours for our Reliant based little wonder.

We have not visited the U.K. for a while due to health problems and we decided to bring the Liege to these shores as we felt our international driving days were probably at an end. A few eyebrows were raised when I took it to be registered here in Australia, but it passed all the tests and soon became my preferred runabout, surpassing our Austin 7 Ulster because of its ease of entry and egress.

When in 2008 good health returned, the Liege was chosen for our re-entry to the motoring world. We have during the year covered many thousands of fun filled road miles on rallies with various clubs and long distance touring for our own enjoyment. Included was attendance at the 32nd Historic Winton race meeting in Victoria (similar to the Goodwood Revival) where the car caused much interest amongst the "classics" in the car park. The original Rialto 850 engine is performing well and now pulls a 4.125 to 1 rear axle (ex early Suzuki) which makes maintaining high cruising speeds over long distances in OZ a less arduous experience. Even long grades are covered well in third, although thoughts of supercharging and five speed boxes are never far from my mind.

Your bright mental attitude is, as ever, apparent in your writing, and we hope that you are maintaining physical wellbeing in the same manner. Keep up the good work!

With fond regards, sincerely, Bob and Judith (Riches)

N.S.W. Australia

As I am sure you will realise I had to reply to that, which is a tiny part of the reason this edition is not with you quite as early as I had at one time intended!

I do smile sometimes, I have never been to Australia, but I do have an atlas, and when Bob talks of high speed cruising over long distances, well, as I said, I just smile. He probably means steady running for hour after hour in the main along long straight roads for hundreds of miles. I know when I spoke to Bill Hansen in January he was still exhausted from the thousands of miles that Bob and Judith took him and Pam (not in the Liege you understand, though I too saw the picture of the three seater Liege in "Liege News" the other month!) during their recent visit.

I know from personal experience that cruising in a Liege at between 5,000 and just over 6,000rpm in top requires a tight grip on the wheel, though I suspect that with the axle Bob is now using he can do a lot less revs per mile.

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From your renewal notices

The following are a selection of the comments that were received with your renewal notices, which, as ever, reminds me why I do this :-

Dear Brian,

4/12/08

I doubt I shall ever own a Reliant, but the Mewsletter is worth the membership subscription alone.

Kind regards, R. P. Hull - Preston No. 556

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Dear Brian,

4th Dec. 2008

Seasons greetings to you and Moira. Trust you are as well as can be, especially free from all the colds and bugs etc. which are going round here at the present time.

The rebuild of Kitten PLF 384R is not yet sorted. All was going great guns, got the car back from the spray shop (the new blue looks really good) and started to put bits and pieces back on. Got the back door on, and the bonnet (saves them from getting scratched just standing in a corner) just got to a tricky bit, replacing the windscreen washer jets and pipe, without dropping the heater away. You need a very small hand to get in the gap to turn the nut!

Then, after months of looking for a small bungalow, away from the maddening crowd, we saw a bungalow in the woolly wilds of Lincolnshire Wolds (the hilly bit) We went for a viewing and the result was that we decided to go for it. Which has meant that the Kitten has languished away in the garage. Every time I went into the garage I promised it I would be back soon to complete the rebuild (bit sad really) You're telling me, sad that the Kitten is still an it in your mind! No men in white coats for you – yet! Ed,

The bungalow, built in 1963 needed bringing up to the 21st century. The heating was by oil, which at the time reached 65p a litre, and using 1,500 of them a year sounded heavy, so we looked at alternative fuels. In the end we opted for a Ground Source Heat Pump, it's a long story on why it took 5 months to get hold of one and get it installed, but commissioning was last Tuesday. It takes a while to get your head round the technical bit, but when the bungalow is at a comfy 21 deg, and the outside tempo is minus 3, it goes through your mind HOW? So far it's doing what the advertising blurb said, we wait to see if the running costs will be as the blurb said to expect.

Now the system is up and running I should get some free time to sort out the Kitten, plus I should be warm doing it!

Sub form enclosed, keep up the good work, I really enjoy reading the Mewsletter, and I promise I will send you some copy just as soon as I get moving with the rebuild.

Take care, Clive (Angel) Royston No. 510

Thank you Clive, we look forward to hearing of your progress. I have to say that your Ground Source Heat Pump sounds like a both fascinating and good idea, but don't let me get distracted, on a more motoring front, this Hydrogen thing interests me, those so inclined might Google water4gas, Alan, my brother is looking at a similar system – isn't it exciting? If you are not on the internet yet, just take this to your local library and ask them to show you how to Google water4gas, while you are there have a look at kitreg.org, I might have the mistakes corrected by then, see if you can spot them!

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Brian,

8 Dec 08

After terrible ignition trouble I fitted the £15 electronic ignition mentioned in the Mewsletter by Simon. It was easy to fit and seems to be working well. Otherwise all goes on as before except I am getting older and creakier.

Best wishes for 2009.

Les (Richmond) - Looe (Cornwall) No. 339

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Dear Brian,

December 2008

As I have no Reliant in the garage (it feels strange after 31 years) I shall not be renewing my subscription.

By coincidence after receiving the Mewsletter yesterday, I had a call from the car's new keeper. He was just wanting to check with me about antifreeze. I ran the car on a 20% solution all year round, and kept a bottle ready mixed to top up if needed.

He still seems pleased which I am glad about. The performance is apparently a revelation, but that is probably because I matched the ports and let her breathe properly. The standard on the exhaust manifold as supplied was appalling, I had to remove ¼" of material in places to make the ports match.

The bottom end never needed looking at (regular 5,000 mile oil and filter changes saw to that) and the oil rarely needed a top up between changes.

I got my asking price and a pleased taker. Can't be bad.

Many thanks for the Mewsletter, advert, and parts service in the past

I can also recommend Frost Auto Restorations Techniques Ltd catalogue for a good browse. They even list multi size steering boots if you want to prolong the life of your steering rack. www.frost.co.uk or 01706 658619.

May I wish you and yours all the best for the festive season and good luck and health for the future.

Fred Rolph - Enfield No. 597

p.s. I will have to console myself with my 1932 Alvis speed 20 Vanden Plas Tourer

p.p.s. And my 1990 BMW R80!

P.P.P.S. Ouch, when I get out in the Alvis we have a combined aggregate of 150 years!!!

(Which by my reckoning makes him a couple of years younger than the creaky Les Richmond! Ed)

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I know it has been a while, well so Moira says, others, like me, might take a different view! since I included some non motoring wit within these pages, and I have an intense dislike for these telephones which are answered by a recorded voice which gives you a number of options to select from, often leading to another selection, and another, before you actually get to speak to a person – if you do not give up before then, but have a read at the following conversations recorded from when we do finally get through – I hope they raise a smile....

Actual call centre conversations!

Customer: 'I've been ringing 0800 2100 for two days and can't get through to enquiries, can you help?'

Operator: 'Where did you get that number from, sir?'

Customer: 'It was on the door to the Travel Centre'.

Operator: 'Sir, those are our opening hours'.

Samsung Electronics

Caller: 'Can you give me the telephone number for Jack?'

Operator: 'I'm sorry, sir, I don't understand who you are talking about'.

Caller: 'On page 1, section 5, of the user guide it clearly states that I need to unplug the fax machine from the AC wall socket and telephone Jack before cleaning. Now, can you give me the number for Jack?'

Operator: 'I think you mean the telephone point on the wall'.

RAC Motoring Services

Caller: 'Does your European Breakdown Policy cover me when I am travelling in Australia?'

Operator: 'Doesn't the product name give you a clue?'

Caller (enquiring about legal requirements while travelling in France):

'If I register my car in France, do I have to change the steering wheel to the other side of the car?'

Directory Enquiries

Caller: 'I'd like the number of the Argoed Fish Bar in Cardiff please'.

Operator: 'I'm sorry, there's no listing. Is the spelling correct?'

Caller: 'Well, it used to be called the Bargoed Fish Bar but the 'B' fell off'.

Then there was the caller who asked for a knitwear company in Woven.

Operator: 'Woven? Are you sure?'

Caller: 'Yes. That's what it says on the label; Woven in Scotland'.

On another occasion, a man making heavy breathing sounds from a phone box told a worried operator: 'I haven't got a pen, so I'm steaming up the window to write the number on'.

Tech Support: 'I need you to right-click on the Open Desktop'.
Customer: 'OK'.

Tech Support: 'Did you get a pop-up menu?'

Customer: 'No'.

Tech Support: 'OK. Right-Click again. Do you see a pop-up menu?'
Customer: 'No'.

Tech Support: 'OK, sir. Can you tell me what you have done up until this point?'.
Customer: 'Sure. You told me to write 'click' and I wrote 'click'".

Tech Support: 'OK. In the bottom left hand side of the screen, can you see the 'OK' button displayed?'

Customer: 'Wow. How can you see my screen from there?'

Caller: 'I deleted a file from my PC last week and I have just realised that I need it. If I turn my system clock back two weeks will I have my file back again?'

There's always one. This has got to be one of the funniest things in a long time. I think this guy should have been promoted, not fired. This is a true story from the Word Perfect Helpline, which was transcribed from a recording monitoring the customer care department. Needless to say the Help Desk employee was fired; however, he/she is currently suing the Word Perfect organisation for 'Termination without Cause'.

Actual dialogue of a former WordPerfect Customer Support employee.
(Now I know why they record these conversations!):

Operator: 'Ridge Hall, computer assistance; may I help you?'

Caller: 'Yes, well, I'm having trouble with WordPerfect. '

Operator: 'What sort of trouble?'

Caller: 'Well, I was just typing along, and all of a sudden the words went away.'

Operator: 'Went away?'

Caller: 'They disappeared. '

Operator: 'Hmm So what does your screen look like now?'

Caller: 'Nothing.'

Operator: 'Nothing?'

Caller: 'It's blank; it won't accept anything when I type.'

Operator: 'Are you still in WordPerfect, or did you get out?'

Caller: 'How do I tell?'

Operator: 'Can you see the C: prompt on the screen?'

Caller: 'What's a sea-prompt?'

Operator: 'Never mind, can you move your cursor around the screen?'

Caller: 'There isn't any cursor: I told you, it won't accept anything I type.'

Operator: 'Does your monitor have a power indicator?'

Caller: 'What's a monitor?'

Operator: 'It's the thing with the screen on it that looks like a TV. Does it have a little light that tells you when it's on?'

Caller: 'I don't know.'

Operator: 'Well, then look on the back of the monitor and find where the power cord goes into it. Can you see that?'

Caller: 'Yes, I think so.'

Operator: 'Great. Follow the cord to the plug, and tell me if it's plugged into the wall.'

Caller: 'Yes, it is.'

Operator: 'When you were behind the monitor, did you notice that there were two cables plugged into the back of it, not just one?'

Caller: 'No.'

Operator: 'Well, there are. I need you to look back there again and find the other cable.'

Caller: 'Okay, here it is.'

Operator: 'Follow it for me, and tell me if it's plugged securely into the back of your computer.'

Caller: 'I can't reach.'

Operator: 'Uh huh. Well, can you see if it is?'

Caller: 'No.'

Operator: 'Even if you maybe put your knee on something and lean way over?'

Caller: 'Oh, it's not because I don't have the right angle - it's because it's dark.'

Operator: 'Dark?'

Caller: 'Yes - the office light is off, and the only light I have is coming in from the window.'

Operator: 'Well, turn on the office light then.'

Caller: 'I can't.'

Operator: 'No? Why not?'

Caller: 'Because there's a power failure.'

Operator: 'A power..... .. A power failure? Aha, Okay, we've got it licked now. Do you still have the boxes and manuals and packing stuff your computer came in?'

Caller: 'Well, yes, I keep them in the closet.'

Operator: 'Good. Go get them, and unplug your system and pack it up just like it was when you got it. Then take it back to the store you bought it from.'

Caller: 'Really? Is it that bad?'

Operator: 'Yes, I'm afraid it is.'

Caller: 'Well, all right then, I suppose. What do I tell them?'

Operator: 'Tell them you're too f --- ing stupid to own a computer!'

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The following pages are part of the story of the trials and tribulations a few good men had helping Francis Newall get his Rebel roadworthy and through the MOT in the latter part of 2008. There was a lot more to it than you will read, and full marks go to Phil Hallam for realising what I am certain was the case with the ball joint problem, namely that we now believe that someone, a previous owner or previous owner's mechanic, must have attempted to use a Rebel drag link (or tie rod) ball joint (the big one) as a track rod end (the small one) by welding the appropriate locknut to the ball joint, thus enabling it to be attached to the track rod. One of the problems with that solution to what was presumably the need to replace a track rod end (one with a left hand thread) is that by using a larger ball joint -

*A.) The thread on the inside of the ball joint will slide over rather than screw onto the thread on the track rod, overcome by welding the smaller locknut to the ball joint, and -
B,) the taper is larger and as a result only a thread or two protrude through the opening that end attaches to, thus making it impossible to secure it effectively as the nut can only catch by a thread or so. The MOT man was quite correct to fail it even though the ball joint was not worn, it was the wrong part and very dangerous, my only argument with him is that I doubt if I would have allowed the car to leave the MOT station other than on a trailer!*

The problems that caused you can hardly imagine, as we supplied Francis with the wrong information, based on which he bought the wrong part, because it took a couple of weeks to realise what the problem was, we provided information to supply him with a big ball joint (which was the part the MOT man had failed) when what he in fact needed was a small one, but his car had been 'fitted' with the wrong part when he bought it. I, and other naive souls, were slow to understand what had been done to the poor car, and as I said, it was Phil Hallam, who I had copied in on some of the e-mails to seek further wisdom, who twigged what must have been the case. All of which would have been clear to any of us had we seen the car!

Adrian Hanwell and John Blagburn were both very involved by e-mail, and the following is an edited version of some of that correspondence which we feel might be of guidance to other Rebel owners. Some of the story relates to problems with cooling that were only discovered after the car was finally on the road and in daily use.

Back door, *To Francis Newall from Adrian Hanwell, 08 September 2008*

There are several solutions to your door handle problem. The simplest one is to remove the handle from the car and clean the square spindle. It should be stamped with the key number e.g. 878. I assume that the ignition key goes into the lock, in which case, take the first two characters from the ignition key and place them in front of the numerals that you found on the square spindle e.g. FS 878. You now have the number of the key that should fit the lock. These are still available at autojumbles or from dealers (like David Manners or Weston Body Hardware). I have some keys myself, but I may not have the one that you need.

The second solution is to dismantle the lock and move the tumblers around, so that the ignition key fits. You may need to file some of the tumblers down and make some new ones. They are only sheet brass, so it is easy to do with a vice, a hacksaw, drill and a set of needle files. If you remove the tumblers altogether any key (or even a screwdriver) will fit, but casual thieves will not know that. If you don't want to make new tumblers from scratch, moving them around to get the best combination, then filing the ends of the holes of any tumbler that is pushed too far by the key and filing the back off any that is not pushed far enough is the best solution. It will mean that a few different keys will work, just as they do with a well-worn lock.

The third solution is as you suggest. I have seen these handles, with keys, at auto-jumbles, so they are available. I MIGHT have one and it MIGHT have keys, but I would need to go and look.

If your door has an escutcheon plate that is fixed with two screws, the handle will be secure (unless someone removes the screws) but if there is only a small round bezel, it will never be secure without modification. It only needs a good strong twist of the handle, the bezel will turn in the fibreglass and the door will open.

To stop this, you need to make a stainless steel disk, from 16 gauge steel or thicker, with two holes for pop-rivets (or screws) and drill, then file a hole in the centre that is the same shape and is a close sliding fit on the screwed section of the bezel. If you fix this disk securely to the door using stainless steel pop-rivets (or screws) then refit the handle, it will be impossible for the bezel to twist in the fibreglass.

Door lock, *To Francis Newall from Adrian Hanwell, 11 September 2008*

The earlier locks had the key number stamped on the escutcheon plate on the OUTSIDE of the lock. When the number was stamped there, it was not stamped on the spindle.

Lock, to Francis Newall from Adrian Hanwell, 15 September 2008

The key number should fall between 000 and 999. You also need to try the ignition key in the lock and, IF IT GOES IN, tell me the prefix from the number on that key. If both locks are

original and your car is J, K, or L reg, I would expect the prefix to be FS; if it is earlier, it could be FP. There are other less likely possibilities as well. Is there a three digit number, stamped on the square spindle of the locking handle?

Lock, to Francis Newall from Adrian Hanwell, 16 September 2008

It is the square spindle on this part that we need to look at. Any number on the "lock" on the inside of the door is not relevant, because all the locking handles (with different key numbers) can be fitted into this part.

The prefix letters "FS" gets us part of the way there. The characters "FS" give us the groove profile (or key type). All we need now is the three numerals, such as 880, 980 or anywhere in the FS key range. These three digits give us the key cutting profile.

Key cutters with computerised key cutting machines use the characters "FS" to select the blank that is to be cut, then type e.g. "923" into the machine to get it to cut the correct profile for your lock.

Idling speed/master cyl. seal, to Francis Newall from Adrian Hanwell, 07 October 2008

Firstly, I have seen too many carburettors to remember each one, so cannot be sure that I am about to describe the Rebel one. As I remember it, the throttle stop is a screw in the throttle lever. This touches a lug on the carburettor body and holds open the throttle. There is also an idling mixture screw, which will affect the idling speed. I really need to look at a carburettor to be sure that I am describing the correct one.

Rebel, to Francis Newall from Brian Marshall, 14 Oct 2008

Regarding the master cylinder, I'll need to have a hunt. There are two types, one has the securing bolts either side of the main body, the other has them above and below. It is not easy to swap one for the other, the bracket on the chassis that they mount on is different. We used to supply these with a new set of seals, however, rubber bits have a shelf life and even although unused we have had problems with the seals in the past. That said, while I may have a master cylinder, I don't think I have any new seals in stock.

I think one of them is very similar, identical externally certainly, to the early Landrover clutch master cylinder, (can't remember if it was the series 2 or 3, but any helpful Landrover dealer will be able to match it if it is the right one) but I think they are 1/16 different in the bore diameter. This does work but the pedal pressure is different as is the amount of pedal travel, but within acceptable limits. We used to get them for about £60, but that was 10 or 12 years ago. If you let me know which yours is I'll have a look and see what we have.

I have to say that you have not left yourself much time, do you have a brake pipe flaring tool? You will almost certainly want to replace the short pipe from the master cylinder to the junction; new pipes, preferably in Kunifer (a copper nicol alloy) or copper, always help impress the MOT man, and at the age the old ones will be now, unless they have been replaced, the chances of getting the old one off intact are not great. Brass brake pipe ends are a good idea, again my

prices are over a decade out of date, but they used to be 50p each, I may have a few odd ones in a box somewhere. One thing to watch is that most if not all brake pipe ends in the last 20 years are metric, no use to you, you need imperial ones or you will ruin the threads in the master cylinder and the brass junction at the other end.

MOT points, to Francis Newall from Brian Marshall, 16 October 2008

My first question would still be which type of master cylinder does your car have? Secondly, does Adrian have both types? Thirdly, are they new? Because if not you would be well advised to fit new seals, and does Adrian have those?

Next up is the horn. Does it work, i.e. have you fed power to it straight from the battery? If so, the problem is most likely with the switch; I do have them in stock, but it may be possible, if you are good with a soldering iron, to repair yours, it all depends if there is a broken wire and, if so, where is the break? An alternative, if it is the switch that is faulty, is just to mount a push button type switch on the dash and use that to operate the horn. First task is to check the horn. I think purple is the horn feed colour, but that assumes that no one has been in there before, and you can't assume that. I know that when I had horn troubles with any of the 8 Rebels I owned, the fault was most often the stalk switch itself, but in those days I could not afford to buy a new one, so ended up in scrap yards looking for HA Vivas, early Minis and the like - different shaped end to the switch, but the wiring was the same. I don't suppose you get many Vivas or Minis in scrap yards these days. Unfortunately, I can't even remember if the horn is live and the switch just connects the earth, or if the horn is earthed and the switch supplies the power, I suspect the latter.

Wipers are potentially more challenging. Again, does the motor run off load, i.e. is this an electrical problem or a mechanical one? If electrical, is it the switch, the wiring or the motor? If they have not been maintained, the chances are that the wheel boxes are seized. You could get away with stripping them down, cleaning out the old, no doubt hard grease, and putting fresh grease in. Don't put too much grease in the tubes the operating spring like wire runs through or the drag there will stall the motor. It can be the better part of a day's work to do that job. I get confused in my old age between Kittens and Rebels, you might need to take the dash out to get at the wheel boxes. I would need to ask advice.

Checking that the fuses and their connections, and the connections on the switch, are clean is good advice.

If I read what you say Adrian said correctly, that is true, but that switch also operates the dip/main beam function of the headlights, the horn wire does come through the dash with the small loom that goes to the steering column stalk switch. The push on the end of that switch should operate the horn. The wipers are operated by one of the two switches on the centre of the dash (the other one does the heater). The side and head lights are operated by a third similar looking, but three-position, switch at the right hand side of the dash above the ignition switch. All that assumes that no one has changed things about in the 40 or so years the car has been about of course!

The throttle stop answer depends on whether you have the original carb and throttle linkage, many Rebels have had those components changed, some to SU, others using the Weber, and they all use different systems. It could well be as Adrian says if you still have a Zenith in there, but it sounds like a mixture problem. Also check that the choke has slack in the cable and

that it is not pulling the throttle on as the engine rocks on the mountings. A blocked accelerator jet was a common fault with the Zenith carb, but that would not affect slow running or idle speed, just make the car slow down before picking up when you try to accelerate. I have to say that it could well be a long day's or even a good weekend's work to sort it out properly - I hope that you have better luck than I used to.

Oh, to check the wipers are not seized you remove the cover from the motor, 3 or 4 fiddly wee screws, very short, take the cover off carefully, and carefully lift out the drive to the wipers. You should be able to move the wipers easily by pushing and pulling on the end of the operating cable once you have removed it from the wiper motor. You need to support the outer with one hand while you move the inner, which should be covered in grease, with the other. If you can't, or if they are stiff, then you need to inspect the cable and the wheel boxes. Be very careful or you will lose the self parking position. I can remember having one of those things up and down about 6 or 7 times before I got them set correctly, not difficult but time consuming!

Brake master cyl., to Brian Marshall from Francis Newall, 18 Oct. 2008

EVERYTHING is now done except for the brake cylinder as Adrian didn't have one. Could you possibly tell me which one this is [the existing one] so as I can order a new one?



Brake master cyl. to Francis Newall from Brian Marshall, 18 Oct. 2008

The good news is it looks as though your car has been crudely modified to take either type of master cylinder. It obviously had the type that is on it now fitted originally, but at some time someone fitted the other type, hence the other hole and a half, and that's what I mean by crudely, that bottom half hole is not really good enough, they should have modified the bracket so that that was a full hole. Now, it has the original type on again. This all raises questions because that bracket is itself non standard.

Anyway, either type will fit, but it would be better supported if you got one the same as that now on the car. I'll have a look when we get back this evening, but as I said I don't have new seals. The Landrover clutch one would be the quickest solution, best to take your old one to the

supplier with you so they can see which one, I can't remember which year/series of Landrover used them.

The pipe looks pretty new which is good!

The reason I was mentioning the seals is that, unless you go the Landrover clutch route, many of the 'new' cylinders, may be unused, but are 25 to 35 years old, and the seals suffer with time as well as use, so even though they may be unused, they can fail rapidly once in service. The age of the cylinder is not very important, the age of the seal is critical, so in some cases you need to fit a new seal even if the cylinder has never been used before.

How did you fix the horn and wipers by the way?

Master cylinder, to Francis Newall from Brian Marshall, 21 October 2008

Yes, sounds as though the Landrover one has the bolts at 12 o'clock and 6 o'clock while the one on your car has them at 3 and 9, which leaves you with the question of what to do about that half hole at the bottom of the mounting outrigger. Can you weld neatly? It would not be a big job to extend the bracket down by about half an inch, or even less, and it only would need a small triangular or 'D' shaped bit of metal, from memory the bracket is about 3mm thick which would let you drill that hole whole and still have some metal below it. You are talking of about an inch of weld, two at most, a MIG would be best, but you are a few inches away from the fibreglass, so a good gas welder could do it with the appropriate shields in place.

Oh, the advice was not blurred, a Landrover clutch master cylinder, nothing at all to do with Landrover brakes!

I didn't realise that you thought the seal 'pulls itself off' sometimes, how would you know that? You can see the dust cover, but that has nothing to do with the operation of the brakes, you have to remove it, and take the circlip out before you can remove the piston to inspect the seal, also of course disconnecting the other end from the pedal by removing the split pin and clevis.

As a matter of interest how much do they want for the Landrover part?

Brake master cylinder, to Francis Newall from Brian Marshall, 22 Oct. 2008

It is always best, in my opinion, to use the correct part wherever possible. The difficulty comes in your definition of the word possible!

The other type of master cylinder, probably with the same bore as the original, because it is a brake one, not a clutch one, and has the locating holes either side, like the one on your car, can very likely be had off the shelf from Demon Tweaks, as it is the same as that used on many kit and racing specials.

The reason the bores are different is because the clutch one only has to move one slave, albeit a big one, while the brake has to move 6 smaller ones, which needs more fluid moved along more pipework to get the job done. So, pedal travel and pressure vary to give the same results.

The possible problem is the price! It has been a long time since I bought a new one, but £60 was what the last one cost, and that was over a decade ago. I'm sure they will be on line.

Master cylinder pics. *To Francis Newall from Adrian Hanwell, 27 Oct. 2008*



Thanks for the pictures. I see that the body bears the markings "CC2" and "G25". I think that G25 is the casting type and any replacement Girling master cylinder of the correct size should carry this reference. Be aware that the bore size could be different though, because there was nothing to stop Girling from boring out the same standard casting with different bore sizes.

Brake problem, *to Francis Newall from Adrian Hanwell, 28 Oct. 2008*

- 1). The horizontal flange type of brake master cylinder is the correct original type for early mechanical clutch Rebels.
- 2). Vertical-flanged cylinders were used on later cars that had hydraulic clutches and needed the space to mount the two cylinders side-by-side. The bore probably remained the same.
- 3). Land Rover master cylinders fit the later cars (vertical flange), but I am worried about the bore size of these. I would suggest that you peel back the gaiter on the new cylinder and bend a piece of coat hanger wire (or even a piece of paper clip wire) to form a temporary "U" shaped calliper, which fits accurately into the bore of the cylinder (just outside the circlip is O.K.). You can then get underneath the car, peel back the gaiter of the old cylinder and use the "U" shaped calliper to confirm that the bore of the cylinder on the car is the same as the bore of the new one. Whilst you are at it, put another calliper (or tape measure) across the securing bolt centres as well and confirm that these are also the same. You should do this before Thursday to save yourself from wasting your mechanic's time (and your money) if the new cylinder is the wrong size.

Brake master cylinder, *to Francis Newall from Brian Marshall, 29 Oct. 2008*

I wouldn't mention anything to your mechanic, bore diameter has absolutely nothing to do with the fitter, he won't be able to do anything about it, and I very much doubt he would notice the

difference anyway, you would have to dismantle the two master cylinders to be able to compare the piston/bore diameter, and fitting one does not involve dismantling.

It is a simple task providing the pipe end has not been over-tightened, i.e. you don't damage the flats when loosening it, the thread is started square in the new master cylinder and is not over-tightened. You are talking about a split pin and clevis pin, either or both of which may need to be renewed (I am assuming that the new cylinder comes with the operating rod fitted). It may be necessary to take the bracket at the front end of the operating rod from the old one and fit it to the new one (two nuts). If the operating rod is not on the new cylinder, or is the wrong length, you just need circlip pliers to remove the circlip under the dust cover and swap the old rod complete onto the new cylinder (in fact you can normally manage that with a pair of fine nosed pliers). Fit the brake pipe and the two cylinder retaining nuts, bolts and locking washers, then add new fluid and bleed the brakes. Unless there is a problem bleeding the brakes, the whole process should only take a good mechanic round about an hour.

The damn rod, to Francis Newall from Adrian Hanwell, 05 November 2008

Yes, I remain on late shift (3.45 pm to 1.00 am) for the whole week. I am expected to come in at 2.45 on Friday to tie up with the people who go home early. I have to leave home at 3.00 p.m. (3.15 at the latest) to get in on time.

If you want to come to Brentwood, that is O.K. but I would hate you to waste all that time if I were to be unsuccessful in finding the track rod end, or if I do find a second-hand one and find that it too is worn out. It would be more logical for me to get up in the morning (at about 09:30 - 10:00 hours) and look for it after I have made and eaten some porridge. The post office do a "Guaranteed next day delivery service" which is quite expensive, but I could send it that way if you are willing to pay for it.

Do not come to Brentwood without calling me first (AFTER 10:00 hours). If I cannot find the second-hand rod end that should be in my garage at home, I will need to drive to the lock-up to try to find one there and you might miss me. I should have a lamp.

The damn rod, to Adrian Hanwell from Francis Newall, 05 Nov. 2008

Ok! Tell you what, if you manage to do guaranteed next day delivery to the address I attach, then that'd be great. And the Rebel would be back on the road! THANK YOU.

Tie rod end and number plate lamp, to Francis Newall from Adrian Hanwell, 07 November 2008

The tie rods and track rods are steel bars with screw threads at each end. The bars run between two track rod ends and each bar has a left hand thread on one end and a right hand thread on the other. This is to facilitate easy adjustment. There are three such rods on the front suspension of the Rebel, two track rods and a central tie rod.

Tie rod end/number plate lamp, to Francis Newall from Adrian Hanwell, 10 November 2008
Brian Marshall also tells me that the tie-rod ends are the same as those used on the Austin Cambridge/Morris Oxford (I think) and some other "Austin Counties" cars, so you should be able to get one from the Austin Counties Car Club (or from their suppliers). I have logged on to the

Austin Counties Club Website and have found a part supplier's list at the following address: <http://www.classic-car-directory.com/parts/partsdetail.asp?id=Spares%2FParts> You might wish to log-on and contact some of those suppliers. If you want to phone somebody for advice, their Membership Secretary is Mr Dennis Robinson Tel 01372 373180 and another club official is M. Pickard, Tel 02476 311315. Your local Discount Motor centre might also be able to supply one. Mine can usually do next-day delivery on such items.

Incidentally, a 24 volt bulb will glow sufficiently to pass the MOT and will not overheat in the tiny chamber of the lamp casing. It will therefore last for years, whilst the correct 12V bulb will probably need to be replaced annually.

Rebel ball joints, to Brian Marshall from Francis Newall, 16 Nov 2008

John B said that I should check the chassis number and some specifics on the chassis, in case its actually a 750 chassis with a 700 engine, hence the parts would be different. Are you around in the day tomorrow? I'm going to go down to the garage probably around 11 or 12 o'clock and if I could get you on the phone to them before I get him on the phone to Amsteer parts then that would be brilliant. You see, I bought the left handed threaded tie rod which was what the mechanic said I needed. What I should highlight it that the mechanic has said that this is the right part for the car! However, he said the pin was too long and too fat - so this leaves me confused. The pin is obviously the part which will need to be worked out to be the correct part, and with the nut we can just measure it and give the dimensions to the supplier to ensure it will be the correct one!

Ball joints, to Francis Newall from Brian Marshall, 16 November 2008

We need to be clear here, it seems obvious to me that your mechanic is mistaken, or at any rate misleading, if the taper pin is too long and too fat then obviously the part is not fine, it is the wrong part!

I am not sure which part it is that you need, and I am making the possibly incorrect assumption that your Rebel's steering is original, at that age it is possible that at some time in its history someone has fitted non standard parts, but assuming it is standard there are three rods in the steering, two identical track rods which are relatively short, about a foot long or less, and one long drag link, closer to 3 feet long, which might be called a tie rod. All three rods have 2 ends one of which is right hand threaded the other left hand threaded – a great idea as it gives you infinitely adjustable steering with the use of a couple of spanners - and on each end there is a ball joint. As I said in my earlier e-mail, there are 6 ball joints, 3 of which are left hand threaded, but, there are 4 small ones and 2 big ones, 1 of the big ones and 2 of the small ones are left hand threaded to match the rods, the 2 right hand threaded small ones are the same as used on the Kitten, and perhaps more importantly, the Mini of that kind of age, so they are cheap and easily acquired. These are the track rod ends.

Adrian is quite correct, the drag link or tie rod ends are different from the track rod ones, they are bigger, fatter, have a larger size of nut on top, etc. From what you are saying, it sounds as though you need a left hand threaded tie rod or drag link end and matching lock nut. That said, I can't imagine why he had to grind the lock nut off.

As I said, I expect that Fred Heath might have these, so might Robert Fairfoull, though it is likely that his would be second hand, or Adrian or John Blagburn should be able to point you in the right direction.

Is that all the car failed its MOT on this time?

Let me know if you need contact details for any of these people, or perhaps I should talk to the chap at the garage? Let me know how you get on in any case.

Left-hand threaded track rod end and lock nut, to Francis Newall from Adrian Hanwell, 17 November 2008

This is good news. As I said previously, I have 22 track rods. About half of the ball-joints should have left hand threads, as they are still on the track rods, so they will have the nuts on the rods with them. I have just one (right-hand threaded) tie-rod end.

Yesterday's disgruntled email, to Francis Newall from Adrian Hanwell, 25 November 2008

Leaks in water hoses are quite common after vehicles have been laid up and hoses have a limited life anyway. They usually fail at the ends, by the jubilee clip so (if you have a knife and a screwdriver with you) you can usually fix the leak at the roadside, by just cutting off the leaking part, thereby shortening the hose and get home safely. The temporary repair even gives you time to source a new hose. It might now be a good idea to replace ALL the water hoses in order to avoid a roadside breakdown.

If your water level falls and the engine overheats, you MIGHT "cook" the sender for the temperature gauge. If the temperature gauge then reads very low at normal running temperatures, buy a new sender and replace the old one. Hopefully, it will not have overheated so much that your cylinder head gasket will begin to leak.

Burning smells often come from oil etc that has been transferred to the exhaust manifold or the exhaust pipe when a mechanic has been working on the car.

These cars are quite robust and I cannot really think of any serious weaknesses. If it has been fitted with an SU carburettor, the float valves need to be replaced fairly frequently (if used as an everyday vehicle). The engine mountings are vulnerable to oil penetration and fail in time, so these should be examined. If the rubber bit comes out, the front of the engine drops, the gearbox tail shaft rises and makes horrible noises within the car, so you cannot drive onwards until you lift the front of the engine. I tied a piece of wood in place of the lost rubber on one occasion and this got me safely back from the Dordogne (in France).

If your car does not have a clamp to secure the exhaust downpipe to the bellhousing, it would be wise to fit one, because the weld at the flange where it fastens to the manifold can fail due to fatigue. Securing the downpipe to the bellhousing can remove the danger of fatigue.

Rebel correspondence, to Francis Newall from Adrian Hanwell, 02 December

Here's the correspondence I've had with John Blagburn on the matter:- Garages won't fit a radiator core, take it to your nearest radiator supplier for that, they have the suitable tank for the soldering and they'll do it, then you put it back in the car. It's simple enough, only the two feet locating the radiator in the front cross member and the top hose to remove to get it out.

John Copestake is correct to a point, the later pump will physically fit the earlier engine, but the fan is too deep for the big radiator in a Rebel and will sit so close to it that contact will be likely under hard braking.

If you fit the new pump then you should fit a Kenlowe or Pacet fan kit which can sit in front of the radiator. That said, my Rebel had no fan fitted and didn't run hot, I carried it in case I met traffic, but running without is common practice since Reliant engines in good internal order always run far too cool in any case.

Garage, to Francis Newall from John Blagburn, 2 Dec 2008

First gear is not fitted with synchromesh, but this and not the gear set itself (which isn't straight-cut, that's reverse he's thinking of) is why it will crunch going into 1st without double-declutching. Most Rebel owners who need to use 1st simply DD then no crunch, no problem, but with a 700 you shouldn't need 1st anyway.

The water pump for later Reliants isn't suitable unless you fit an electric fan since they require three holes and not the four that the Rebel has on the boss that takes the fan, which should, on a Rebel, be a single piece of steel. DO NOT, under any circumstances, use some kind of sealer in the Reliant engine! Radweld and similar are completely unsuitable for these because of the tiny water galleries around the rear of the block and the heater valve, use sealant in one and it may seal the leak for a day or two, but it will also starve number four liner of coolant and cause overheating that usually, in this situation, leads to a lot of engine damage.

Fix the radiator, ok, so it's bigger than a later Reliant/mini one, but a fresh core usually costs about £45-£70 and is a lot cheaper than putting right the damage that sealants cause to these delicate little engines. Rebel water pumps are no longer available and second hand ones will not be usable since the glands dry out if they're stored for more than a few years. Best thing would be to fit the 850 one but use an electric fan as there isn't space in front of the Rebel's large radiator for the bigger, Rialto-style fan.

Leaky radiator/faulty water pump, to Francis Newall from Adrian Hanwell, 03 December 2008

Firstly, are you sure that you have BOTH problems? When the water pump fails, the water is normally emitted from a small drain hole at the bottom of the pump body. This can spray everywhere when the engine is running and give the impression that the radiator is leaking as well. A leaky radiator can also wet the water pump.

What I do, is to remove the radiator cap, fill the radiator, then pressure test the cooling system in the car. Applying pressure with the engine not running will allow the leaks to occur without the fan spraying the leaking water everywhere. Has your mechanic done this test?

When I get a leaky radiator, I identify the location of the leak, then remove the radiator to see if it can be repaired simply by cleaning the damaged area and soldering over it.

This will not work if the radiator has failed through corrosion, as the tubes will be so thin that cleaning them will cause more leaks at the ends of the cleaned area, and all the other tubes will be weak anyway so they will fail in due course and a repair would not be worthwhile.

If one of the tubes has simply split or been impact damaged, then soldering over the hole is the simplest form of repair, although split tubes are often caused by frost and other tubes could possibly have been weakened by the same freeze-up. I repaired some impact damaged tubes in my Lanchester L.D.10. in about 1970 and that radiator is still going strong, although I have had to remove the top-tank and use wire rods to clear lime scale out of all the tubes since then. I used choke cable wire for the rods, pushed straight wires down the tubes, then formed the end of a wire into a snake shape and pushed it down the tubes to clear more scale, then finally silver-soldered a small piece of hacksaw blade onto the end of a wire, ground it to fit into the tube (removing the teeth in the process) and used the spade shape to fully clear all the tubes. I have done this to two Rebel radiators as well as the Lanchester one and all remain fully serviceable.

When a radiator fails, the cheapest solution is to find another one. Then you have all the time in the world to see if you can get the original (now spare) radiator serviced. Try looking around for a second-hand one first. I think that the radiator might be the same as a Reliant Regal one. If you go down this route, you will need to contact the interchangeable parts man to obtain full details.

I made and fitted adaptor brackets onto one Rebel, then fitted a Reliant Kitten radiator, which was in the Rebel for many years until I came across an original radiator and swapped it over for the sake of originality. I still have the home-made brackets somewhere.

The second choice is to check out the price of a NEW radiator. Often stockists have such things and will clear them for nominal money, just to get them out of the way. This COULD be cheaper than getting a radiator re-cored.

Finally, you can go down the re-core route. There were specialists all over the country, but they are getting fewer and further in between, because many modern radiators are crimped together and not worth repairing.

I would suggest that you measure up the core of your radiator, count the number of tubes in each row, count the number of rows and phone around for a price. Prices can vary enormously and the £40.00 to £70.00 sounds like a good range. I had a Ford Escort radiator re-cored in Kent a few years back for £40.00. Counting the tubes may not be necessary, because long-established companies will have these details on file but, with Rebels being quite rare, obtaining and giving your own details should help when shopping around.

I am not an expert on the different types of water pump. Yes, I have seen the deep plastic fans with the three screw fitting, so I accept the advice given by John Blagburn. I have also noticed pumps with differing depths of pulley fitted to them. I think that these must have been the ones with three screw holes for the fan. If I had this problem. I would look at the different types of new pump to see if the four holes could be drilled and tapped into the three hole pulley and give an acceptable clearance, once an old metal fan has been fitted.

Water pumps can also be serviced by experts. Serck Radiator Services (*I am sure that Marsden merged with Serck, I think the new group was called Serck Marsden, Ed*) may still have a water pump servicing division. If your own pump cannot be serviced for any reason, I have other second-hand ones.

What happens with old pumps that are allowed to dry out, is that the carbon thrust seal sticks to the cast iron rotor with rust. Then, when you try to use it, the carbon may remain stuck and the rubber part tears, so the pump leaks very badly. If there has been a high proportion of antifreeze in the water (as there should be at all times with aluminium engines) this should not happen. When I put an old pump away, I fill it with neat antifreeze, spin it around a few times to ensure that the seal to rotor gap has neat antifreeze in it, then empty the pump again. Unfortunately, none of the pumps that I have were removed by me, so it is unlikely that this has been done.

Rebel, to Francis Newall from Adrian Hanwell,

The Rebel is an excellent car to learn on. Beautifully simple mechanics that are easily accessible, a sturdy chassis made of flat sheet metal that is easily repairable and a rot-free bodyshell. The 600, 700 and 750 engines are excellent, but the vehicle is over-gearred if you fit an 850 engine and these tend to knock out the crankshaft bearings through over-revving on longer journeys, unless the main bearings are modified (with steel supports) to racing specification.

Right, that's enough of that, it does give you some insight to what goes on behind the scenes between magazines, at the same time I was providing Terry Wheeler with registration dates on over 120 Rebels, past and present, just 10 at a time, thanks for your patience Terry.

I totally agree with Adrian's last comments, but reading through the whole saga there are a couple of things I could take issue with both John and Adrian about, and there may be things I have said that they have different views on as well, perhaps another time!

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Us.

Well I was organised! Renewal notice were enclosed with the last edition, and our 5 year subscribers did get their 2009 membership cards.

If you have already returned the renewal form and paid your 2009 subscription, thank you, if not, this will be the last magazine you will receive until you do so, or until you convince me that I have made a mistake – doesn't happen often, but none of us is perfect, don't be shy about keeping me right if you think I have made a mistake.

At the time of writing, mid January, over 120 people have renewed, thank you for your continued support, our future is secure for another year.

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Right, this letter arrived on Tuesday the 27th of January, which was the same day that I learned that Terry Walker was selling his Tandy camper, I am fast running out of time and space, thanks are due to Roger Brown for his help, and Rik Borgman for the cover picture and half of the next edition :-

Dear Brian,

26th January 2009

Things have moved on apace since your valuable advice helped me with the rebuild of the Kitten for my daughter. She now uses her sister's Saxo and does not want the Kitten. Just as well I found that out before painting it pink for her! So it needs painting, and is looking for a new home.

It is a very useful vehicle, the details are :-

1978 Kitten Estate with I believe a genuine 53,300 miles on the clock. It had been off the road since 1992 when I got it, and has only covered 700 miles since the rebuild. White in colour it has a presentable black interior. It has extra dials, rear fog lights, reversing light and radio cassette. It sits on polished Cobra Supaslot ten inch alloys (including a spare) and has 4 brand new tyres. New stainless / chrome wiper arms and new Tex chrome door mirrors.

Work done includes a complete new brake system, master cylinder, slave cylinders copper pipework. New handbrake cable, new headlamps with two new spares. New track rod ends, new rubber boots on the steering rack, new points condenser distributor cap coil plug leads plugs and a specially made in Devon stainless exhaust, and has had all the fluids replaced including gearbox and back axle.

Taxed till end Sep '09 tested till mid October, it does need paint, but is presentable enough to use, as I have been doing.

As it is I have a Scimitar needing work, and need the space.

It stands meat several hundred pounds, and given the work that has gone into it I am open to realistic offers. If anyone in the Register wants to contact me direct, I am happy for that to occur.

Colin Barlow - Reading

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Getting Technical

Les Smith has spent a lot of time organising a rev counter in his Fox. He tells me he'd never do it again, just too tight for space to fit everything in with reasonable ease. But there it is, and I have to say it looks pretty good to me – though I did point out that it is no use to him, it only goes to 7,000 RPM!



~~~~~

Hi Brian,

A couple more comments on springs and dampers:

It was 7 clicks not 8 that Yoland used on her Tempest. The 4 cm I mentioned was from the bottom of the thread to bottom of the support ring - I hope putting it next to a picture of fingers measuring wheel arch clearance doesn't confuse people.

What might be confusing is "More on Leaf Springs" saying the stiffness of springs is proportional to thickness when as you know it is proportional to the cube of thickness.

Using the simple formula for the deflection (which is probably very approximate for small numbers of leaves) swapping from 3/16 to 7/32 gives an increase of stiffness of about 1.6 but, as was pointed out in the Mewsletter, changing thickness and reducing the number of leaves drops this to 1.19, which I suggest is not worth arguing about.

However, a quick search on Google finds several spring suppliers, including British Springs who claim to supply any quantity and if they haven't got it will make it. I am sure they could advise on the best design - they are just down the road in Shropshire.

I am still confused as to why Yoland's car has only two leaves about 1/4 inch thick. The Haynes manual only shows two. Any ideas?

Incidentally, how many people contacted about Triumph Glorias?

Regards, Roger

*Thanks Roger for keeping me on the straight and narrow. Form the end then, just 3, John Stork from Glenelg was the first, then Keith Gittus and yourself. That said I had told John Box he was excluded, with his truly extensive knowledge of cars, and having worked for Triumph, he just knew too much!*

*Your comment about British Springs interests me, they used to make them for Reliant at one time, and for a number of years made them for us. But a few years ago they told me they were concentrating on bulk orders only, and referred me to a firm in Rotherham who have not been that great, and seem less than interested in doing more business with us. When I tried to contact British Springs again last year, their telephone number, the one I used to use, which is the same as the one on the web site, was unobtainable. I would be delighted if you could put me in touch with them.*

*You are quite right to chastise me for using fingers under a wheel arch without making it clear that was on a Kitten, the Fox and Tempest will I am sure be quite different in that regard. I quite accept that it is not a terribly scientific way of going about things.*

*Ed.*

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## **Tuning Distributors, a question**

I've recently had my interest re-awoken in the area of distributor tuning. We are lucky in some ways: Reliant only seem to have used two models from the 45D4 range for all the 850 engines, whereas there were several different 25D4s used for earlier engines. Basically all the 850s apart from the HT-E 'Yellow-top' engine seem to have used model 41625, whereas the HT-E used 41961A. This leads me to think though that there is plenty of room for fine tuning, as we know there was a fair range of performance from the 850s. In other words engines vary enough to make it worth tuning, and getting better performance with greater economy.

There is little point in fine-tuning when points are used, as they are so prone to bounce, burn, and adjust themselves, and are a pretty overstretched item, when you think that even at cruising speed they are trying to be accurate a hundred times a second. Now that more people are fitting far more accurate, and cheaper overall, electronic kits in place of points, it becomes worthwhile to tune.

So... anybody out there got access to any data or materials that might help? Few tuners now even remember distributors - answers to my local enquiries tended to run along the lines of "Oo-arr, those were the days - a pity old Fred isn't still around, he'd have been able to explain everything... So: you've still got a car with a distributor, have you really?... Is it one of them old Minis then?" The internet is frustrating because all links eventually lead back to M. Chichak [Google it] whom I shall contact next.

It seems Lucas didn't release details of the tune of the 45D4 range, and I'd like to know if varying springs are available.

I'd be glad to know anything you can think of that would point me in the right direction, so I can plan and write up as definitive a guide to tuning as I can, for another Reliant Project Document. [No. 11]  
Thanks in advance [no pun intended of course]

Duncan (Bradford) Norfolk

Brian,

22nd January 2009

I have thrown this together due to time constraints and they are really only chit chat I am sending about a few technical matters.

Mewsletter 84 had Philip Naylor getting his plug leads mixed up and hence suffered from a severe lack of power. When I first read this I thought it was a genuine fault, but it turns out to be just a lead mix up. But you can create this very problem if you don't watch too closely. The bottom of the dizzy has what is known as a muff coupling and offset dog to pick up the drive/skew gear from the cam shaft. This muff is pinned onto the shaft, if you don't take care, you can pin the muff 180 degrees out. You then end up with an apparent odd firing order. What to do? Remove the distributor and re-pin, or, if you've just set the ignition and feeling lazy you rethink your firing order and reset the leads on the dizzy cap. This is fine until the next rebuild when you forget it and refit the leads as they used to be and then wonder why the engine acts so strangely. It gets even better when on an even later rebuild you remember this problem and make sure you correct it with your distributor cap only to find you had been even more clever and used another distributor from the spares which was correct after all!!

Now let me tell you another story, in fact Mewsreaders from a while back possibly remember me writing in on a nearly regular basis, then I seemed to fade, actually the Reliant spent several months not being used due to an apparent failed engine and having to get chassis welding to get through the MOT, and then the chassis finally going beyond its sell by date. So after 268,000 miles PMF 460R has had enough. Although it isn't quite dead yet, its spirit lives on. The Reg number is going to a friend as a personal plate, the remains of the car gets re-registered and sold as a spare to maybe resurface as a fresh build go faster rocket car! If it happens I'll let you know.

In the meantime back to the story, PMF languished for several months as it had an oil/water mix, head gasket we thought, off with it, NO must be block. Cancel car for the moment and go and build another engine from the bits in the garage. Several months later after several false starts to the rebuild, I go out to the old machine to pull out the engine block, turn it over, piston up with liner!! Bother, the problem is a loose liner which is a half day fix! Take out liner from the top with piston and rod in situ by removing big end bolts. Clean bottom inside of block and bottom of liner, re stick with Silicon, fit spare head with only a few bolts for 24hrs, refit proper head, start car! Run until chassis rots through.

Now we come to the up to date portion, had been toying for weeks to get some other car. Not desperate for a car as I have full use of her indoors 206 Peugeot SW and 70MPG diesel and £35 road tax are wonderful encouragements. But as we had so many spares, a good engine, and we know the little beast, I carried on searching. Finally we come up with an ex RKR members Estate, with most of my mods already on it, (via these pages) and a few more besides. 12" wheels I always wanted, and oil cooler, I always wanted, and a 4 branch exhaust, I always wanted! The new machine turns out to have just been rebuilt and runs like a watch. But even more disconcerting with its 4 branch and a slightly lighter flywheel it is as responsive as mine was/is with its 270 cam and balanced bottom end! Most other engine mods being comparable, gas flowed head, gas flowed carb, electronic ignition, electric fan. I am not going to strip two engines and make one best one out of the two as the new one is so sweet. All good fun. Plenty of other techy points to worry about as we come into better weather. There are 7 items on the dash board to move about as well. Watch this spot.

And please note I have a 'bucket load' of the smaller second hand spares.

Alan Osborn - Watton No. 295

## Parts

Hello Brian,

7/12/08

Kitten Stainless exhausts – these can be ordered from :-  
P.D. Gouch & Associates of The Old Foundry, Common Lane, Watnhall Notts. NG16 1HD Tel  
:- 0115 9382241 or fax 0115 943 9162.

They have a pattern and a very sophisticated bending machine which I have seen in action. They make exhaust systems for several classic car clubs.

The Kitten system fits easily on a Fox only requiring 2 rear rubber hangers and an additional hook bent from a suitable piece of rod to join them to allow the tail pipe to clear the rear skirt of the body.

Fox rear springs – I've managed to get some new top and second leaves made locally (£25 each leaf!) I haven't got round to fitting them yet, but will let you have some feedback when the job is done.

All the best, Dave Richmond.

*Thanks for the input Dave, I did visit them on one of my trips a few years back but nothing came of my visit at the time – I thought they were too expensive! I rang them when your letter arrived, they will do a Kitten system for £165 in mild steel, or £195 in stainless, plus vat and delivery in both cases. They will give the Register a small discount if we buy several systems at the same time, but only a small percentage, so unless at least 5 of you get back to me and we can arrange a batch, you are on your own I'm afraid.*

*On the mild steel Kitten exhaust front I understand that Graham Walker, our parts advertiser, has just had a batch produced, give them a ring and mention the Kitten Register. I understand they come in at a lot less than £165!*

*I'm not sure that I understand the comment about getting the rear pipe of a Kitten system to clear the rear valence on a Fox – does that not put a strain on the weld at the manifold? I know I should have given you a ring to clear this up, but time..... or the lack of it, prevent me.*

*Ed.*

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Hello Brian,

14/12/2008

I finished (as much as these things are ever finished) my Herald Convertible restoration, bar hood fitting, this summer. It's now living in a barn nearby and my (ex your) Rebel Estate is up on stands in the garage for a bit of a going over. I've stripped the roof for repainting - the rest will have to wait - and the brake hydraulics are going to be replaced completely and the fluid changed to silicone. The driver's door needs some work: new hinge, window winder and release control,

but a combination of eBay and a couple of broken Herald doors has, I hope, given me all the bits I need. I have a sneaking suspicion that I have the wrong handed window winder, though ...

The biggest bit of work is revamping the interior. I'll be getting a new headlining made (well, sheet of foam back vinyl) and I'm planning a complete re-carpet. The door seals were leaking rather badly last year and a fine crop of mushrooms did nothing for the old carpet, or the smell. The plan is to have a tunnel carpet properly made, using the old one as a pattern, and to carpet the rest of the floor from material off the roll. Which is the real point of this communication, apart from asking how you are. Do you think there would be any interest in having more tunnel carpets made at the same time? The current rough estimate is about £50 a go, but if a few others wanted them we might be able to bring that down a bit.

Best wishes, Ian (Johnston) Castle Douglas - No. 506

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## **Federation news DRIVE IT DAY 2009**

Remember - Drive It Day this year will be on Sunday, 26 April. The aim is simply to be seen so that the public is reminded that historic vehicles exist and that there are lots of people preserving them for posterity. So people don't need to do anything special if they don't want to - all they need do is just use an old vehicle instead of a modern one for whatever it is they do that day.

DID not only intends to show how big and varied the historic vehicle movement is, it also aims to show how infrequently they are actually used. The number of old vehicles on the road on that one day in the year will highlight just how rare it is to see them the rest of the time and thus demonstrate that historic vehicles make up only a tiny fraction of normal traffic.

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## **Sales and Wants**

For Sale :- a rare opportunity this – Kitten Estate Red, 1976. Extensive re-build on a new galvanised Fox chassis. 'Box and engine professionally recon. Unleaded head. Copper brake pipes, silicone fluid. Stainless exhaust. New brakes and shocks, battery and MOT. Complete respray and re-trim with decent front seats. 12" wheels (6) and good tyres. Various spares will be included. Mid Scotland. £1,500, no offers, Gavin McMurdo. See the front cover for a picture of this car.

For Sale :- Jimp, MOT till August 09, taxed Feb. New brakes all round, cylinders and shoes, suspension bushes new tyres on 10" alloys, removable fiberglass cab roof, interior needs finishing. £600 contact Bev Crook

For Sale :- Fox, B reg. cream, hard top, rear seats, new tow bar and electrics, runner with MOT, clutch gone. First £500 no offers. Bought last year for a lot more than this and money spent on it. No time. John Metcalfe East Yorkshire.

The following are new (or good second) and I would like to sell them on are you interested? Al Osborn Thetford

Gear box rear cover bare 28465 (maybe Pt 90967)....1 off  
Front suspension shim 23303.....8 off  
G Box Speedo drive 11363.....7 off  
Retaining plate locking handle (saloon rear hatch) 25259...11 off  
Striker plate. 21144....2 new (2 good used)  
Rear seat squab retainer (plastic covered steel) 27012....10 off  
Bezel for inside door latch 208809....8off (these are seconds but are they in short supply?)  
Bush rubber steering column 22104....14 off  
Pair of door hinges.

Further...I have quite a few smaller parts left after dismantling over the years and quite a few engine parts (all seconds) cranks, cam shafts, a few manifolds. Please ask if you have a need.

For Sale :- Syncro rings John Box

For Sale :- Reliant Kitten saloon project, Balluinluig near Pitlochry, contact Lyn

For Sale :- For those of you who have envied Duncan's Tandy, there is one for sale - owner, a retired engineer, is not well enough to finish fettling it. I don't know condition in detail but pretty good, had full MOT a year or so ago, undriven since. Includes new s/s doorframes supplied by me, gearbox, new batteries & loads of spares - looking for around £1,500. Sounds good to me, contact me in first instance, Duncan

For Sale :- 1978 Kitten Estate, taxed and tested till late 2009, see the story on page 40. Contact Colin Barlow

For Sale :- A pair of professionally re-upholstered Kitten front seats. The work alone cost £250.00. Offers to Jimmy Davidson Port Seaton (near Edinburgh)

For Sale :- Fox Tandy camper Contact Terry Walker

Wanted :- Some brown original plastic mouldings for the rear three quarter panels for the boot of a Kitten Saloon, both sides. Plus a matching boot cover if anyone has one. All in perfect condition with no cracks in the plastic. I am happy to pay postage plus asking price if anyone has one or more of these items – Philip Naylor

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## EPILOGUE

It is still December, early December, and as I may have mentioned at the beginning, this edition might be as long as the last one thanks to a lot of time Adrian Hanwell spent summarising some of the e-mails that were flying about from September till December when we were trying to help Francis Newall get his Rebel on the road after it had had a rest for a year or two. If you like this sort of thing let me know, we could do more of it, but I have to say that we have included less than a quarter of the e-mails that were sent, and cut some bits out, now you will perhaps understand why I find this internet thing a mixed blessing, it can take up a lot of time – I know, my two finger typing could do with improving, but there are times when I could see it far enough. Let

me know, either way, I will pay attention, but I have to say, subscriptions will have to go up if we continue to use this much paper!

Don't forget (me that is! Ed.) that it is Derek Cleaver who is fitting a 5 speed gearbox to his Kitten! No. 548. Now don't get excited, it involves an awful lot of work and special engineering – little things like the starter motor needs moving to the other side, and so the exhaust needs major changes to clear it, and that's just for starters if you will excuse the pun! Probably no room in a Liege, not for this particular solution at any rate, sorry chaps... Watch this space.

Well, plans change! Moira had her knee op. on the 17th of December, this time they did some good, but the down side was no driving, or walking for 4 weeks! It has to be said that she had magic crutches, by the second week of confinement I kept finding the crutches in one room and Moira in another! The good news is that the op. seems to have been successful, she is walking and driving again, even started back at her beloved line dancing last week! And she is a lot happier and in less pain than she has been for many months, but the down side was me having to do the things Moira normally does about the house. Don't get me wrong, I can do most of them, it just takes me a bit longer, (about 5 or 10 times longer!) and I tire quickly – it was a challenging few weeks, and the down side was a lack of time to do the Mewsletter, so this has been put together over a longer period than usual, and perhaps without the attention it deserves – I am sure you will understand that sometimes other things have a higher priority.

Speaking of attention that things deserve, for the same reasons many of you who asked questions on your renewal notices have yet to hear from me, if it is urgent, please don't be shy about reminding me, otherwise I will try to get there before the next edition comes out.

Oh, speaking of the next edition, unless you have already renewed your subscription, and if you have you should find your 2009 membership card enclosed, (unless you are one of our 5 year subscribers, in which case you should have had it last time) this will be the last mag you receive until you pay up. As I seem to so often have said in the past I can make mistakes, if you think I have in your case, just let me know and I will check.

To hark back for a moment to my opening comments on page 4, I have a new hero, well heroine, University Challenge again, last night Corpus Christie College Oxford beat Exeter University by a score of more than 20 times that of their opponents, and this was the quarter finals, you don't get that far by being thick! The girl who led the victorious team, Gail Trimble from Surrey, was not only exceedingly knowledgeable, but had a manner and attitude that really would put her up there with Barack Obama if she were ever to venture into American politics. 350 to 15 they won by.

Oh, and yes, I did get one answer faster than she did, the difference between ten square meters and ten meters square, I beat her, and the other 7 contestants, by a clear couple of seconds, but I would not have known the answers to any of the three follow up questions!

Take care, talk to you again in the Spring.

Do I still need to mention grease guns, oil cans and what you should be doing with them?

**Brian**

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