TEE-ONE TOPICS

Number 30 November/December 2003

PHŒNIX

Those of you who have followed the latest adventures of Harry Potter on DVD or at the theatre will be aware of the unique mythical bird reportedly with gorgeous plumage, which lived for five to six hundred years in the Arabian Desert and terminated itself by immolation on a fire started by the sun and fanned by the bird's wings. Surely Rolls-Royce had a hand in this bit of design? At any rate the important outcome was that the bird rose from the ashes of its own body to begin another cycle. I have had dozens and dozens of letters, cards and emails anxiously enquiring about the future of the Tee One Group and more particularly the *Topics* after our erstwhile interim treasurer 'officially' disbanded us. Moreover, most of you received AUD 20 as a refund of your 'subscription'. Many of you forwarded the money to me and to those who didn't say have a drink on me. I analogy we are alive and Well to complete the Phoenix heart warming support well and most gratified at the so many have offered.

For those that just came in, it may be worth while venting a little history without pointing fingers or upsetting those who seem to be intent on getting upset. Most if not all of my Australian readers are members of the Rolls-Royce Owners' Club of Australia in one or other of our State Branches. In the Australian Capital Territory which for the benefit of our alien readers equates very closely to the United States District of Columbia, a small group of members, myself included felt that our passion for tearing our beloved cars to pieces was inimical to the interests of the balance of members. There was also seriously expressed concern that our activities could invite claims on the Club in the event of one of our participants being injured during our sessions.

And so we quietly withdrew and pursued our interests separate from the local members' activities. We even, early readers will recall, issued a disclaimer disassociating ourselves from the Club lest some canny lawyer tried to make such a connection for his own advantage. Any practical separation was entirely voluntary. The rest of the local members were always very welcome to attend our 'self help groups' as were any members of the Club. And it was gratifying that so many of our New South Wales members turned up for our events as did a few from Victoria and a couple from Queensland.

This seemed to sit comfortably with the prevailing sensitivities until one of our group in a gesture of unbridled principle declared that I should not carry the expense of putting out the

Topics. He struck a levy on the spot and called for a volunteer 'tin rattler' (probably an Australian expression similar to pass the hat around or kick in a coin). Our consequent 'interim treasurer' willingly volunteered and set about getting us organised or more appropriately 'me' organised. A bank account was opened, money was garnered including cheques and money orders mouldering in my bottom drawer and I happily prepared to send in the printer's and postmaster's bill. Further our volunteer agreed to actually despatch the *Topics* and sorted out the recipients' mailing list .

We have recently talked about engine mounts on Shadows and later cars particularly the front one. This is the worst I have ever seen. The mount in a very nice example of the car was merely a resting point for the engine as there was no connection between the rubber and the mounting plates. The plate to the left is the device that stops the engine from eating the radiator core and should normally have a strip of rubber across its front. The owner had had an experienced mechanic check the mount and was told it was OK!. Had the car stopped suddenly the fan would have carved itself and the header tank up 'big time' as is the modern vernacular.

This was the genesis of subsequent ructions as quite a number of my recipients had not even asked for the '*Topics*' . I had simply sent it to them as a perceived enthusiast. Lest my critics seize on this, of the 3000 odd copies I have despatched only one recipient actually called me very apologetically to say he simply wasn't interested in the mechanical side of the cars and please save my money and effort and cease and desist etc. He is a very old friend and I appreciated his candour and practical gesture. The rest of you I had thought just threw the thing in the rubbish bin but it seems after the latest initiative by our 'interim treasurer' this is certainly not so and for that I thank you.

The end of story was that I reverted to my original arrangements, managed to cobble an address list together and got the show back on the road.

And so the monies I have received, I will squander on immoral pursuits and liquor but at the same time stand the bill for the *Topics* with much pleasure. Producing these writings has proved conclusively to me that there are many owners and enthusiasts out there who genuinely want to work on their cars, no matter how complicated, and appreciate any information they can get to do so.

End of sound off!

WHEN YOU CAN'T GET THE BOOT OPEN

I currently have a low mileage dear old Spur that needs some tender LC in the hope that it will find a loving home in the near environs.. In the interim, our good friend Steve Crocker thrust the header tank of his venerable Shadow into my hands with a plea that I bring it back to its former glory. The detail of this will follow later but in the meantime, suffice to say I had Steve's tank and a couple of spares bifurcated and sand blasted awaiting a decision on which base was to go with which top. In addition my mate of eons delivered another early Shadow with incontinent cooling bits and that involved a further bifurcation. These all sat a'rattlin' on the back floor of Peter's Lexus until prior to one journey he demanded they be removed for no other reason than peace. Chastened I flung the offending bits into the dear old Spur, shut the boot lid and was off. Some few days later I decided that procrastination was not going to work and I determined to finish at least one of the jobs. To the boot I went, pressed and NOTHING! No amount of persuasion, sudden lunges, key positions or leaning on the boot would unlock the entombed bits.

No t'is not Excalibur but the way into a boot that is jammed shut. The same locking mechanism is used on all the shadows and SZ cars to the end of production!

Prepared to bore a 1" hole through the back of the lid behind the number plate or utilise an axe I rang the ever-helpful Alan Gardiner at Bentley Sydney and explained the problem. With the utmost tact he quietly pointed out that the solution lay through the floor of the boot. Simply remove the spare wheel carrier (unbolt the lowering thing) pull the spare wheel out and lying sedately on the carrier reach up through the inflating hole in the boot floor with a 7/16"AF spanner, fumble around under the lock and remove the two bolts holding the lock bar to the rear panel of the boot.

Suitably chastened and embarrassed I then pulled off the lower part of the lock and the cover on the underside of the boot lid concealing all manner of frights including the operating link. I was sure this must have broken but there was also the electromagnets and things that go click in the back when you turn the key – hopefully they hadn't decided to test my intelligence (always a worrying time)! The problem was disappointingly simple, some cretin at some stage had managed to let a 7/16" nut loose in the boot lid innards and with mad cornering and doughnuts etc it had worked its way to the centre and dropped down into the lowest part of the lock mechanism and jammed it solid! An olive picker fixed that!

This was the welcome sight I got when the last bolt was undone. This technique I think would work on the very much later cars as they fiddled with the spare wheel stowage.

Putting it all back together there remained the adjustment of the lock. As you will know this system was basically the same from the beginning of the Shadow. The lid closes on a rubber seal and needs only be held in place against would-be thieves. The tightness of the 'hold' is adjusted by moving the latch bit on the lower boot sill down until the profile of the lid matches the body. The finished job should allow you to 'close' the boot NOT slam it. To slam a boot as our man George Shores pointed out invites the bottom of the lid to strike the bottom – chipping the paint.

SHADOW ACCUMULATOR OVERHAUL

Most people of reasonable intelligence would, on discovering that the accumulators were in need of repair take their car to a suitable operator. Or they might remove the whole assemblies and go to a number of people who do this kind of work and fit the repaired product. Twenty five years ago this seemed all too complicated and at considerable expense I had produced a spanner than would open the accumulators together with a jig to hold them while they were spannered. It remained for me to replace diaphragms and valves, overhaul the control valves, fit the lot and bleed the system. As well as the spanner I needed a jig to hold the accumulators and a supply of nitrogen to re-charge them. The latter also committed me to a high pressure regulator which looked just like those gadgets you see on the top of oxygen and acetylene cylinders at your local welder's establishment.

The last bit of equipment was a strong vice on an even stronger bench. These muthas's are tight. I remember carrying out the undoing bit on a set of accumulators at my old matrimonial address and after using a 3/4'" break bar with a five foot steel extension and two 170K helpers, I found next day that my residence had actually changed its post code! Warwick Grigg my faithful adviser resident in the Southern part of the Capital spent a King's ransom and qualified for the engineering version of the Oscar in getting his accumulators apart. One day he will tell the story!

This is an accumulator sphere opened. The half at the top right is the top half through which the brake fluid is pumped and the other half has the sharp edged charging hole that will smartly chop up your diaphragm. The hole also houses a steel ball a little spring to keep it in place and a circlip to keep the spring in place! The ring slips over the top half and screws onto the bottom half with the diaphragm jammed in between.

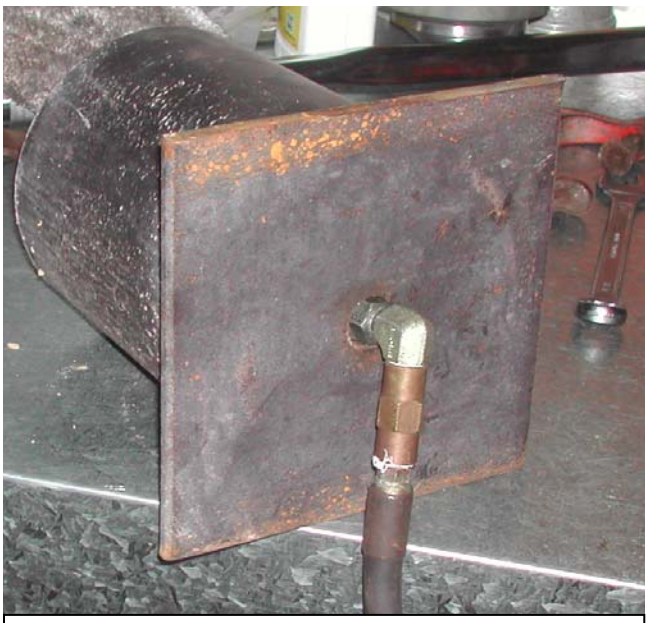
But first the decision to remove, charge or ignore the accumulators. Every month every post-Silver Cloud owner needs to come home from a nice drive, slip into the garage and turn the engine off. He then turns the ignition on but does not start the engine and slowly but steadily pumps the brakes until first one system light comes on then the other and notes the number of pumps. For a Shadow I (stet) the minimum should be say 20 pumps, for a II say 15 (the accumulators are smaller) and for a Spirit say 10. Any less and you need to do something other than count your money.

The drop in the number of pumps before the lights come on is the caused by the depletion of the nitrogen in the accumulators. It is unavoidable but it is fixable. Eventually the pressure of the fluid will force the diaphragm hard into the bottom of the sphere. Since there is little or no nitrogen to push back, until the diaphragm is forced into the charging hole which has nice sharp edges and chops a hole through the rubber letting any vestige of nitrogen escape back to the reservoir. As long as your engine keeps going you will have brakes but if it stalls – grab the Rosary – you will have nothing!

And here is the vulnerable diaphragm in this case a new one sitting on the lower half of the accumulator sphere. The nitrogen dispersal is no mystery, at 1000 psi it tends to find little interstices in the 'rubber' and escape. The problem was so bad at the beginning of the series that every diaphragm had to be tested for porosity before fitting.

The brighter among you will have asked by now whether or not the nitrogen can be replenished and the answer is yes! Shadow I's can be done in situ on later cars the units have to be removed. Citroen owners I find have been doing this for years including the units which they share with Spirits throwaways.

There is a good deal of scare stuff around these accumulators but handled sensibly there should be no cause for concern. I have been



Charging the sphere which is inside the pipe in case it blows up. The latter is about as likely as winning Lotto but my friend Warwick insisted!

asked what safeguard is there that the control valves won't seize and the accumulators simply explode. The Factory thought of this and in manufacturing the push rods for the hydraulic pumps they 'waisted' the lower part which is designed to crush at about 3000 psi!

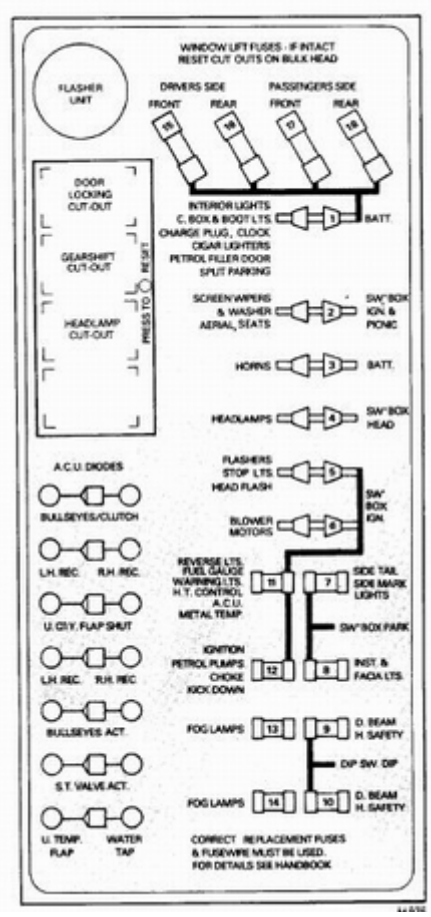
The steel ball on the left goes in the seat inside the sphere and is held in place by a small spring and even smaller circlip. The plastic ball on the right is forced into the outer end of the charging valve and topped with the charging cap after charging.

The fixture to undo the spheres. The clamp is to hold the 'spanner' in place. There were two methods of sealing the charging valve involving the shape of the projection. One was sealed with an 'O' ring and the other with a plastic ball which was crushed into the charging hole when the cap was screwed on. Practice has been to use the ball on both to ensure a seal.

DIODES

Since Ken Saunders introduced some of us into the mysteries of the electrical bits of the Shadows a number of us have been going around innocently asking whether owners have checked their diodes recently. This has certainly given a new approach to the subject of "Hows she going mate?"

For those that have not been initiated into this secret business a diode is what we crude mechanical folk would call a non-return valve except in lieu of fuel, water, gas etc we are dealing with electricity. In my perfect world I would have one wire going from source to thing that needs power and that would be it. So much easier, if it doesn't work look for THE broken wire! Unfortunately this would somewhat hinder the design boys with their fancy routines of slowly switching off cabin lights variable speed motors, timers, pretty gauges and a host of gadgets that many of us seem to gloat over. Moreover, my approach would require so much wire that we would need double wheels at the back of the car to carry the load! And so we have a host of bits inserted in wiring schemes to do all sorts of jobs. One of these is the diode. Why would electricity want to run the other way? Well normally under my scheme it would but when you connect other bits to the system, 'stray' bits of current wander down wires when they shouldn't. Unfortunately the bits at the end of these wires don't appreciate the difference between serious 'I am going to make you spin electricity' and stray currents that turn up at their terminals.



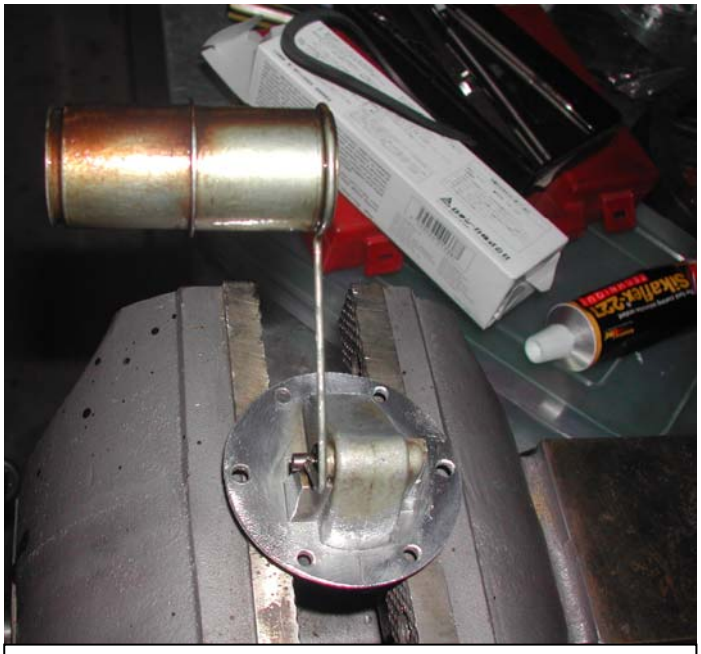
In the Silver Shadow the air conditioning system has actuator motors, function switches, blowers and a lot of wire to connect them all together so the chances of a bit of stray electricity wandering down the wrong wire are fairly great and that is why the Factory installed diodes in this area. Now when you get a blast of hot air in your face on a boiling day when you clearly dialled cold air, you can remark authoritively 'Must have a faulty diode' and turn the whole system off till you get home and fix it.

Note that we are dealing only with the Shadow I (stet). All owners by now have found the fuse box down under the dash next to the handbrake. If all is well there should be a metal plate beneath it that can be slid out to let you gaze earnestly at the layout to impress lookers on. A picture of the plate appears above and lo at the left bottom corner are seven A.C.U. (air conditioning unit) diodes. Notice the 'arrow like' symbol between each terminal. This gives the direction the current flows. Replacement diodes which have a tiny arrow on them must be installed in the same direction. David Gore who understands these things recently offered advice on one of the website forums 'Suitable diodes are type 1N4004 [1A 400V] or 1N5404 [3A 400V] - I prefer the 3A diodes as there is almost no difference in price [around AUD0.20/0.35 each]. Both are readily available from Jaycar and Dick Smith Electronics. So get yourself a fist full of diodes from Dick or Jay, disconnect the battery, spread a clean towel on the floor, drop the fuze box and start replacing.

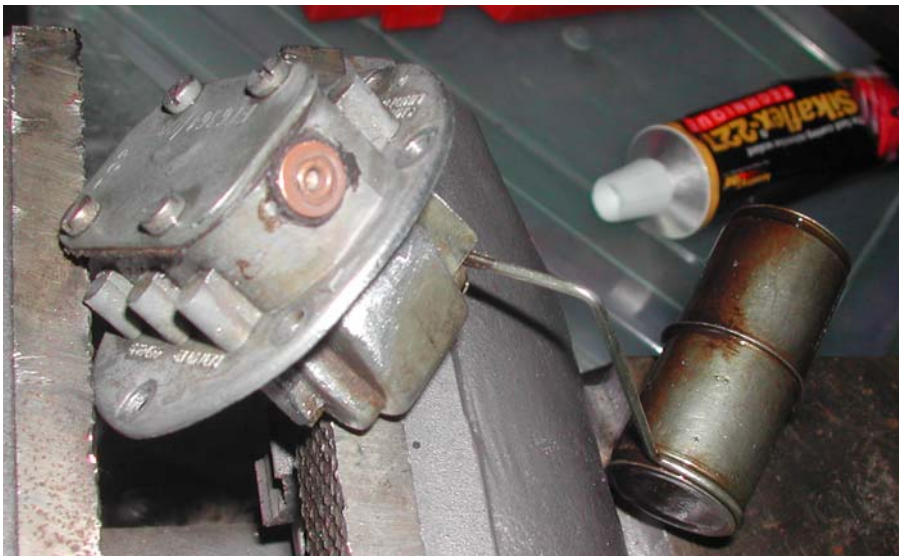
Looking aft on a 1975 Silver Shadow. This is the hole left after the sump level unit is removed. The unit is mounted on a welded-in ring seen here clearly and sometimes there is a leak between the ring and the main sump. That involves removing the sump and some clever braising and re-plating.

FLOOR MESSERS

Most owners do not get this intimate with the engines of their cars but in the interests of a reasonably clean garage floor, perhaps they should. The large hole above of course normally holds the float level unit in the side of the engine sump. These units seem to stand a lot of abuse from heat, sloshing oil and a build up of crud. They do however leak, usually from around the periphery of the unit but also through the back of the unit and often through the rivet at the base of the terminal box. Removal is quite simple with the aid of a screwdriver but note the special washers lodged under the 2BA attaching screws – don't lose them. The correct gasket is readily available from our agents but certainly needs to be augmented with a Silastic gasket cement. While the unit is off, remove the terminal box plate and gasket and using a pressure pack de-greaser squirt out the incredible muck that has seeped into the housing. You will need to cut a new gasket for this lid and use a little



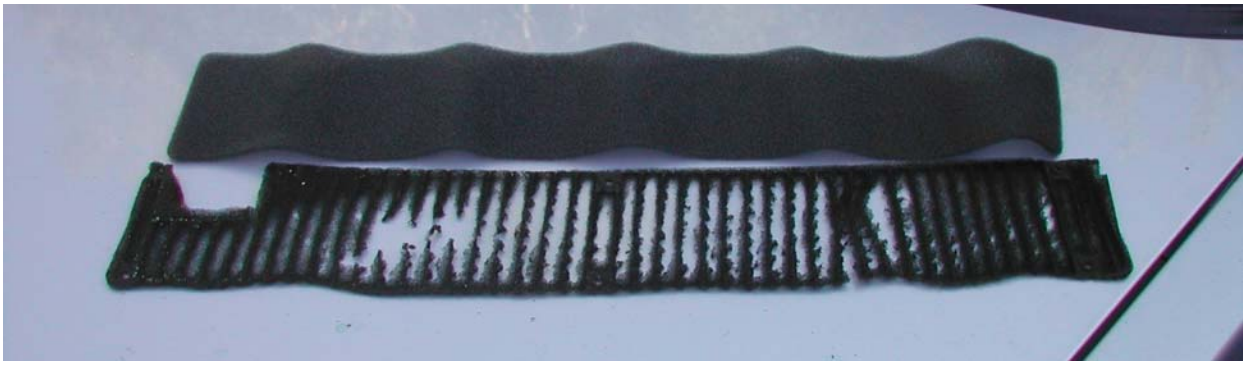
The business end of the unit. The float can puncture as any other and the quickest way to check this is to immerse it in boiling water. A string of air bubbles will prove a hole and its location. A dab of solder after draining the float fixes it.



more Silastic sparingly to seal this area. To the left you will see the riveted insulated terminal that is the base of the coil. If this leaks I suggest you approach a reliable instrument maker to see if he can rectify the problem. A replacement unit is about $700! In re-fitting the unit be aware that the flange is quite soft and ham-fisted tightening will distort it. Almost every one comes across has this damage but the Silastic seems to seal it despite the damage. The unit is a very old system using a coil of fine wire wrapped around an insulator. Current from the gauge is fed to a wiper that gently runs up and down the coil driven by the movement of the float arm. The more coil wire that the current has to pass through the greater the resistance and the less current flowing through the gauge hence a lower reading. The whole setup is a great re-assurance to the driver particularly for Rolls-Royce engines which love oil compared with my ED Ford which in the 130,000 odd kilometres I drove it I never added oil to the sump between oil changes!

❁

KEEPING THE BUSH OUT



Most of us have seen this result to the sponge filter under the air intake grille in front of the windscreen. Frequently they are seen to be missing particularly after a full paint job. You can buy the filter already cut or get the foam plastic from Clarke Rubber. Not having the filter allows leaves particularly but otherwise an entomological Noah's Ark to get into the evaporator and heat exchanger blocking them but worse falling into the condensate tray beneath them and blocking the drain holes there. The next rainstorm of very hot day and you have a small flood on the front carpets!

One problem I haven't solved is cleaning the drip trays under the evaporator. Given the volume of air that passes through these units and the pollutants stick to them, a layer of unmentionable gunk settles in the tray, the aroma of which is wafted through the car when the blowers come on. Unlike the drip tray in the back of your fridge these are not really accessible. Any ideas???

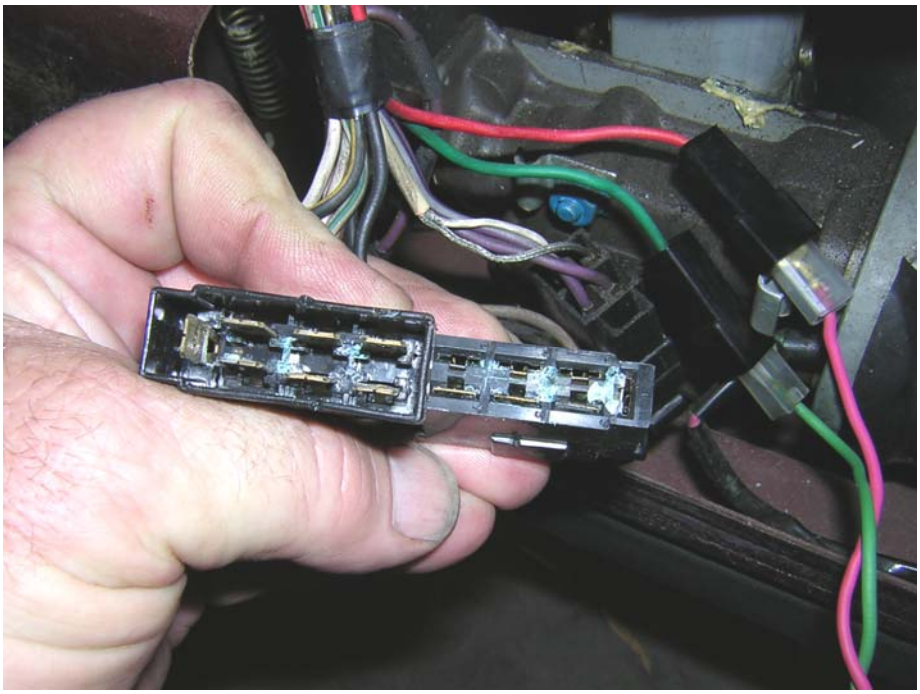
❁

FAILING ELECTRIC WINDOWS

(Or how green was my connection)

Of all the gadgets fitted to our post-war cars electric windows or window-lifts as the Factory quaintly calls them would have to be the most troublesome area. Electric windows may have been fitted to some late pre-war cars and after the war until the advent of the Clouds the Factory stayed clear of them. That did not stop coachbuilders installing their equipment and well I remember a lovely Hooper bodied Silver Dawn that lived in Canberra years ago that had front electric windows. I took the car to Sydney on one occasion and in the middle of one of those Sydney specials where the Heavens opened I was driving up Oxford Street and for some reason needed to open the driver's window. Pushing the button, the motor whirred and I went stick my hand out and nearly broke my fingers since the glass was well and truly still in place. Instinctively I pushed the button again and with a resounding crash the glass shot downwards into the innards of the capacious doors. No amount of button pushing however would raise the thing so I shot into a service station in Flinders street taking shelter under their awning and managed to find a plastic garbage bag which I indecorously jammed around the door opening to keep the deluge out.

Next morning I pulled off the door lining and then removed dozens and dozens of countersunk wood screws that held the inner steel lining in place. These were commonly used on coach built



cars to give the door structure support particularly when the thing was open. Fortunately the glass was not broken, it had merely separated from the lower carrier. These for years held the glass in a sea of mucky stuff resembling tar. Seems it had gone hard with age and just let go.

The Clouds seemed to keep life simple in the wiring department for these units and by and large apart from the odd wonky switch and the occasional burnt out motor gave little trouble. The Shadow however offered a veritable wrought to the designers to 'tech' up the facility. Motors seemed more reliable and fuses used on the Clouds were dispensed with in favour of circuit breakers. But overall the car had grown more wiring looms than Bunkering and since construction and installation of these had to be kept reasonably practical they were broken up into sections and these in turn were plugged together. Now as we all know, the moment you have a connection you provide an opportunity for a faulty connection and these plugs were no exception. Nicely made by Mr Lucas they slid together very solidly and often but not always were waterproofed. Next to gold and silver, copper as you know is one of the best conductors of

electricity hence the composition of the points of your powered appliances. A drawback however is that copper tends to react with moisture and form a coating commonly known as verdigris. For casters of bronze statues and makers of fancy art deco bits, verdigris is highly prized. The coating is blue green and can give a very nice patina to the final finish. But it is not much help for electric connections since it is a fairly good insulator of electricity. David Gore, given his professional status, advises flooding the problem area with WD40 or similar, blowing it dry then cleaning with a special pressure pack electrical cleaner and finish off with CRC 808 – a specifically designed silicon spray for such applications.

❁

GETTING TANKED – AGAIN

On page 12 (believe it or not) two and a half years ago, we discussed the repair and restoration of the header tank on the two iterations of Shadows and their various derivatives. Sure it is a very obvious bit of equipment sitting as it does on top of the radiator and one is tempted to splosh lots of paint thereon to improve the judging points. But on this occasion we have a problem of loss of coolant with no obvious egress such as water pump glands, loose hoses leaking cylinder seals so the eye does tend to focus on the header tank.

Not the average view of a Shadow header tank. Clearly the silver solder has been melted and the two halves separated. At the left is a tank top. The hole at the top accommodates the steam valve and the one at the bottom the screwed radiator cap. Note the piping between the two and the connection to the overflow pipe. At the top right is a much bastardised bottom. Almost centrally is the 'U' shaped baffle that the two prong level sensor sits in. This is to stop the coolant light flashing every time you go around a corner. In the same bottom to the right of the 'U' piece is the bleed pipe which is connected with a rubber pipe to a similar pipe in the top of the radiator. Be aware that the 'U' baffle piece can come adrift and flop around inside giving some very interesting displays with the coolant level light.

Nothing really remarkable here except to point out that the top tank requires a large diameter steam valve and the lower one the smaller version. The former it seems is no longer available. The left hand holes are for the screwed cap. The black ring is the new sealing washer which needs to be intact for a good seal.

The subject chassis is a 1970 Shadow English delivery with a Kiwi interior (well worn but worn well) and an engine that runs very sweetly but more impressively drives like exiting detritus from an overheated shovel if you get my drift. Clearly this is one very desirable 9:1 compression ratio spec! Mystery – where is the coolant coming out? Running down the right hand side of the radiator core is an innocent looking soft hose that finishes up pointing at the ground; the overflow pipe. This was re-routed to a plastic bottle taped to the safe rear of the engine and the car driven. Ah!!!! There we have ignition Houston. The bottle was half full after a half hour run around the traps. There are only three ways water can get into that tube, through overfilling the tank with the cap off, through the cap not sealing properly, or through the steam valve finally giving up and allowing the pent up pressure to escape together with lots of coolant.

And so we resort to Mr Boyle and his findings in the 17th century that there was indeed a connection between the pressure, volume and temperature of a gas, in this case water vapour. We all know of course that when we boil water the first obvious thing is the formation of bubbles at the bottom of the saucepan. This is actually water vapour that is entrapped/dissolved in the water and expanding with the heat. The bubbles will get bigger until their pressure exceeds the outside air pressure pushing down on the surface of the water. When this happens the bubbles get very big very quickly and burst to the surface in great profusion and we recognise that the water is 'boiling'. If we keep heating, the water will keep 'boiling' and every time a bubble bursts it carries away a little bit of water as vapour until there is nothing left! Furthermore no matter how much heat you pour into that pot it won't get any hotter as long as there is water to boil.

The steam valve which varies in poundage between cars.

Now at what temperature do these bubbles burst to the surface and 'boil'? Well for practical purposes – 100 degrees centigrade at sea level. As we ascend in the sky to say Canberra the air pressure lessens. This means that the bubbles will come to the surface on heating at a lower temperature than our pot at sea level. Hence the political comment that the residents of the National Capital live in a rarefied atmosphere! If you go to an extreme, say Mt Everest with your pot the air pressure is very very much less than at Canberra or the

T'other side.

seaside and the your pot will boil and at a much much lower point. In fact you can put your hand into water boiling on Mt Everest and not hurt it. This is also the bane of mountaineers since they can't make a decent 'cuppa' at such altitudes as they can never get the water hot enough.

The business end of the long serving filler cap. Here we have one clue as to coolant loss with a nice little chip on the lower sealing edge. These occur when the cap is dropped and upon chipping gives rise to a vocabulary not normally heard in polite circles.

OK so next we go down the mine daddy! The deeper we go, the higher the air pressure and the reverse applies with water not boiling until well over 100 degrees C. It is this situation that we re-create in the cooling system of a car engine. Having filled the system with coolant we put a special cap on (in most cars) that has a spring loaded seal keeping the coolant in. Hence the latter can get beyond the 'normal' boiling point of water without boiling. Eventually it may get so hot it will lift the valve, release pressure and the coolant will boil. It is this situation everybody is warned about. Do NOT open the radiator cap on a hot engine If there is a coolant shortage wait until the thing cools down a bit, put a heavy cloth over the filler cap and carefully release it.

Hopefully the coolant will never boil as the pressure generated in the system will be sufficient to stop it. But there is also the simple problem of expansion. Water heated will expand and it has to go somewhere preferably not by bursting a radiator hose. In practice it blows off the spring loaded steam valve and in the case of the Shadow exits through the overflow. When the engine cools down the coolant contracts and the level drops in the header tank. With the advent of the Spirit, the Corniche retained the old Shadow header tank until 1984. Here the overflow was directed into a non-pressurised plastic bottle on the left side of the engine. Overflowing coolant went into the bottom of the bottle until the system had established its own levels. The steam valve in the header tank however was redesigned which allowed coolant from the plastic bottle to be sucked back into the header tank when the coolant contracted on cooling and this at least in theory obviated any coolant loss.

A matter of cosmetics. The steam valve is held in place by a circular brass plate seen painted black above. It is held in place by 5x2BA setscrews with washers. Two of the screws you will find are longer than the other three. This is to allow fixing of the 'label' seen above imploring people not to put engine dissolving things into the system. In addition there are two very thick washer for the longer screws which allow the label to sit comfortably on the top of the steam valve plate.

Rolls –Royce finally succumbed to using a conventional spring loaded filler cap in the Spirits. . The old cap we all know has

adorned our radiators and header tanks ever since we stopped unscrewing the lady and poured water into the top of the 'grille'. This cap simply seals the whole system just so long as there are no nicks on the sealing surface. In lieu of the spring loaded filler cap a pressure valve was recessed into the top of the header tank of the radiator which we enjoyed on all cars up to the end of the Clouds and then recessed into the separate header tank planted on top of the Shadow radiators.

If loss of coolant bothers you, take your Shadow header tanks to a radiator man and have him sweat in a conventional filler neck to take a standard two way pressure cap and hook the overflow up to a suitable bottle in the engine compartment. Alternatively you might like to look at fitting an overflow bottle and installing a pre-1984 Corniche steam valve.

❁

NIPPONDENSO STARTERS

Well much curiosity was generated by the last reports on the lovely little Nippondenso unit. A firm in America which Richard Treacy referred to me is prepared to make a starter for any British car based on the little Jap unit and here is their first effort for a Bentley. The price will be the clincher since there is hardly likely to be other problems – we hope. The difference in size as you will see is amazing but the power of the little beast is also amazing. My favourite 1987 Spirit fitted one of these whizzes into life with narry a cough, whereas by dear old Lucas tends to grunt on the first compression stroke. Further bulletins will be forthcoming.

❁

EVERYONE TO THE GORGE

George Shores insisted that it was time to stop pulling cars apart and go somewhere sociably. He nominated the Molonglo Gorge, a venue I had not entered in years. Peter and I set off in the blue beast and were met there by Bill Fleming in his burgundy Shadow, George in his blue Shadow II and that was that three cars, 17 people and three dogs! Beautiful day great company lovely venue and no breakdowns. Pictures over.

If undeliverable please return to Post Office Box 827 FYSHWICK 2609 ACT AUSTRALIA