TEE ONE TOPICS

Issue 48 November 2005

Well I am late and I apologise. Thank God this rag is not 'time critical'. The biggest excitement since the last issue has been my 'outing' by the Prime Minister in connection with the Vice Regal Phantom VI. If you read these pages you will be fully aware that I have been fiddling with one of these cars for many months but have endeavoured not to directly identify whose it was. A bit pointless I agree, a bit like referring to the 'lass who lives in the big house at the end of the Mall'!

Anyway questions were asked, the car was clearly identified and all was revealed as follows:-

QUESTIONS IN WRITING
Governor-General
(Question No. 1445)

Mr Melham (Banks) asked the Prime Minister, in writing, on 25 May 2005:

(1) In respect of the Rolls-Royce motor vehicle maintained at Government House for the transportation of the Governor-General, Her Majesty The Queen, and foreign dignitaries, what is the current valuation of the vehicle and when was it last valued.

(2) How often was the Rolls-Royce used in 2003-2004.

(3) For each financial year since the vehicle was acquired by the Government, (a) how many kilometres did it travel and (b) what was its annual running cost.

(4) How often is the Rolls-Royce serviced and who or which company/organisation undertakes this work.

(5) In view of the purchase by the Government of ten modified armoured Holden Caprice limousines, will the Rolls-Royce continue to be used to transport the Governor-General, The Queen or any foreign dignitaries.

(6) Are there any plans to replace the Rolls-Royce with another vehicle; if so, what is the anticipated cost of a replacement.

(7) Are there any plans to modify the Rolls-Royce to equip it with a similar level of armoured protection to the armoured Holden Caprice limousines; if so, what is the anticipated cost of the modifications.

Mr Howard (Bennelong—Prime Minister)—The answer to the honourable member's question is as follows:

The Official Secretary to the Governor-General has provided the following information:

(1) $155,500 as at 30 June 2005.

(2) Eight times.

(3) The Office only has information for the last five financial years:
(a)
2000-01 1283km; 2001-02 3280km; 2002-03 1123km; 2003-04 985km; 2004-05 1250km; and
(b)
2000-01 $701; 2001-02 $490; 2002-03 $369; 2003-04 $472; 2004-05 $343.

(4) The Rolls-Royce is serviced as required. The services are currently being undertaken by Mr Bill Coburn, a

Rolls-Royce enthusiast and member of the ACT Branch of the Rolls-Royce Owners' Club of Australia.

(5)
Yes, but dependent on security advice.

(6)
No.

(7)
No.

More importantly you will notice that the Tee One Topics banner has returned. I had a number of complaints that readers missed the entries because of the unfamiliar heading - easily fixed. It has been a great year for communication with owners and amassing of information on the cars. This as far as possible is being made available to the world via the world wide web regardless of membership since the important task is to preserve the cars; who does it, where and when, is of little consequence as long as they are saved. As I keep saying – there will be no more.

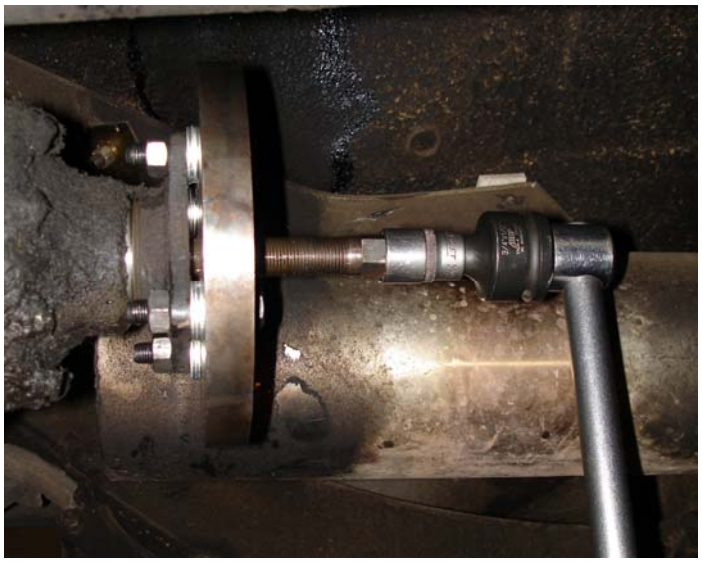
FIXING THE LEAKING DIFFERENTIAL PINION SEAL ON A SILVER CLOUD

On these cars apart from the obvious leaking drain plug which can usually be fixed with a new aluminium washer carefully planted under its little flange, the only leakage points are where the pinion pokes out of the casing at the front or where the axles poke into the side. The latter are a bit more difficult so we will concentrate on changing the pinion seal. The lower picture over the page shows a fairly identifiable pinion leakage, the oil being thick oozes all over the casing, mixes with road dust and dirt and presto you have an instant antirust coating. A side product of the rust proofing however is that the car stinks particularly when hot and if you hang around it enough you will stink also!

As there is no way you will remove a pinion flange which is fitted with double keyways on a taper, you will need a puller. Perhaps you don't have one; then get one made. Do NOT use a leg puller or you will most certainly bend the flange and even run the risk of breaking it! Go to your local friendly fitter and turner and ask him to make up a stout disc of good steel about an inch thick with a central threaded hole. He will tell you where you can get a suitable mandrel (the high tensile pointed bolt screwed through the middle).

Getting set up. Use the other end of the propeller shaft with the sliding joint as a template for hole drilling as it does not have a locating ridge seen on the other end here. The additional holes are a remnant of a previous pulling job for a different application.

By now you will be telling me it is all too hard particularly locating the holes for bolting your new puller onto the flange. You of course have a perfect template right in front of you – the end of the tail or propeller shaft. This has to come off anyway. Remember before removing this to mark the flanges at both ends so that it goes back exactly where it came off, otherwise you will finish up with a highly erotic vibration that will do nothing for the smooth operation of the vehicle!



You should also go to your nearest bolt shop with one of the propeller shaft flange bolts in your greasy hand and purchase four high tensile bolts and nuts, the same diameter as the flange bolts but long enough to go through your puller and the flange leaving enough to get the whole new nut on.

The advantage of a thick plate can be seen here. Note the packing washers to allow for the protuberance of the pinion nose and nut although preferably a recess should be cut into the plate and allow it to sit flat on the pinion flange. Also note the spanner arrangement, something this strong is needed to turn that mandrel!

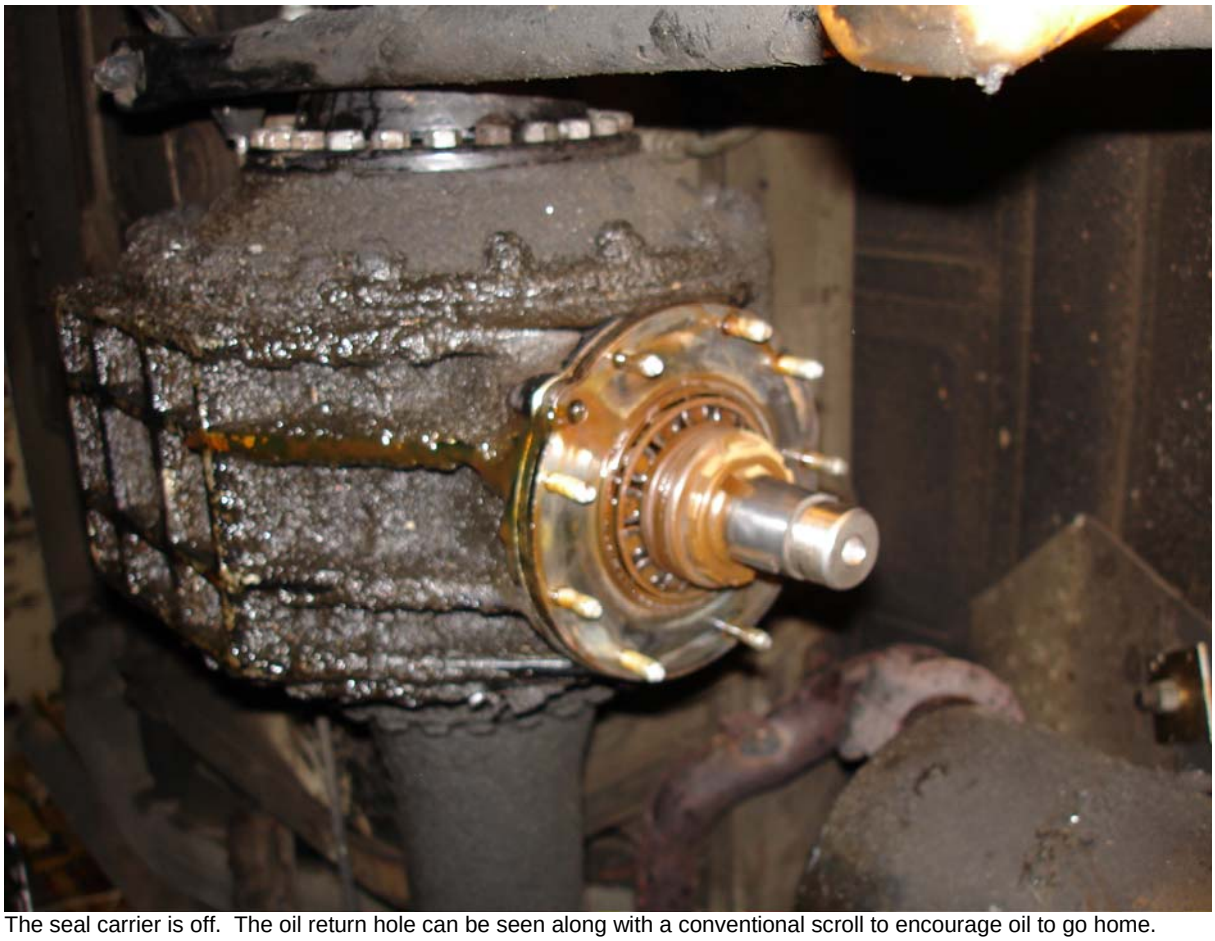
Before you embarked on this radical exercise you will of course have ordered a pinion nut lock plate as well as the felt seal. And I assume you have devised a way of lifting the car to a reasonable height and standing the chassis on very stable jack stands. Ideally the car should be no lower than knee height for the door sills. You need to be able to fling yourself around under the car a bit, preferably on a creeper.

If you are still with me, preferably don't drink during this operation as I need your full attention, unless of course having slid underneath you find two broken springs, a cracked case and a bent propeller shaft, in which case go find a bottle and read this in comfort.

The flange removed – note the keyways. The bulge at seven o'clock is a return duct to carry oil away from the seal that has worked its way through the pinion bearing.

The first task is to lock the back wheels. The handbrake probably won't hold against your Herculean strength so screw up the shoe adjusters as tight as you reasonably can AND apply the handbrake while holding the brake pedal down hard. The latter action is to relieve the handbrake cable of the strain when you wrench it on, best you apply the brake through the pedal and effectively hold it in place with the handbrake lever. This is not a bad idea whenever you use the handbrake; cables have been known to snap. Clean around the front of the casing so that you can see what you are doing and avoid dropping nasties into the assembly.

Next you need to undo the flange nut. You will need a large socket and no I am not going to tell you the size other than it is of course UNF. If you are a budding mechanic but haven't built up the tool department, buy large sockets and ring spanners as you need them. Buy a complete set and you may never use many of them. Carefully measure the size of the nut across the flats and trot off to the tool shop with the measurement. You will also need a break bar which is a very big bar with an attachment to fit in your new socket and with which you can really demonstrate those biceps.



The seal carrier is off. The oil return hole can be seen along with a conventional scroll to encourage oil to go home.

Before undoing the nut however there is the small matter of the lock plate. You will notice how the tangs of the plate are bent up hard against one or more of the flats of the nut. The easiest tool to unbend these is to use a small sharp woodworking chisel. Sharp because it needs to get under the tang. A few well placed taps and the tang will be bent away. I always save lock plates along with jam jars and articles in newspapers that I must read sometime! So once you have the tangs bent back a bit slip your socket over the nut and tap that with the hammer. This will neatly fold them all the way back and at the same save the plate for when you need one and they are on back order from the Factory!!!

Having got the socket firmly on the nut and your new break bar inserted brace your feet on the chassis, grasp the bar and pull or push as you prefer. The nut is tight but you will win just ensure you are undoing the nut (it is a normal right hand thread) and that you are pushing or pulling squarely so that the socket won't slip. Having got the nut off and the only slightly damaged lock plate, mark the flange and shaft with a bit of paint so that it will go back on in the same position. Go and have a cup of tea.

The inside of the flange. The seal groove can be seen at the front .

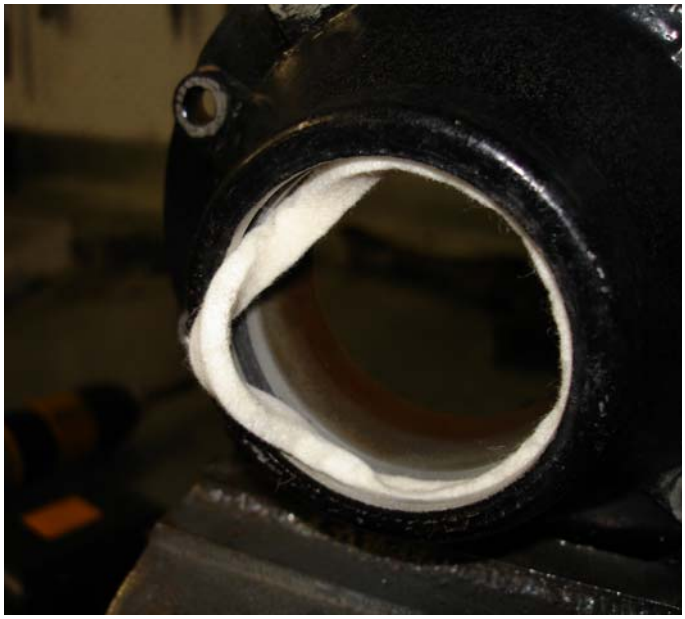
Next step is to mount the puller on the flange. Screw the nut back on until the face is level with the end of the pinion and mount the puller. You will immediately notice that the nut and shaft stand proud of the pinion flange by about 3/16" which means there is a gap. This as can be seen in the

picture should be filled with washers and the high tensile bolts you have bought will nip up the puller nice and tightly.

If you are clever (I am not and always forget) when your fitter man is turning up your plate and boring the centre hole for the mandril, get him to countersink the plate large enough and deep enough to accommodate the end of the pinion and the nut!

The flange with the old and new seal. It will squash up if done with care!

The nut is refitted for this operation as I like to protect that very special thread and it (to my mind) gives the end of the pinion shaft a bit of support while that very hard and strong centre bolt is being forced onto it!



So screw in the mandrel until it is sitting nicely in the centre of the pinion shaft and tighten it as much as you can. You will probably need your break bar with an adapter and appropriate socket to finish

The new seal on the way in. Don't rush it stretch or tear it!

the job. The separation will usually be gentle, albeit with a lot of force and the flange will simply slide off after you have removed the puller and the centre nut. You need not drain the housing although a small amount of oil may seep out when the flange is removed.

You are well on the way. Undo the flange nuts and remove them with their washers, give the seal holder a sharp tap and it should slide off the studs.

Having cleaned all the bits and poked the old felt seal out of its groove, carefully insert the new one. Don't rush this and do it with feeling. It is square in section going into a square section groove. Ease it in with a small blunt screw driver bedding it well down and at the same time compressing it as you go. The latter is to avoid too much left over when you complete the circle. Test the pinion flange in the housing to bed in the new seal with a bit of Vaseline. Don't force the insertion, if it wont go try more poking and squeezing. Probably time for another cuppa.

Put the flange back on with a very light smear of gasket sealant on the mating face, bolt it up, refit the flange the lock plate and the nut and tighten it very tight aligning the nut flats to the ears of the lock plate which can then be bent hard against the nut. Replace the propeller shaft with the

alignment marks agreeing, tighten the flange nuts again very tightly, lower the car and have another cup of tea!

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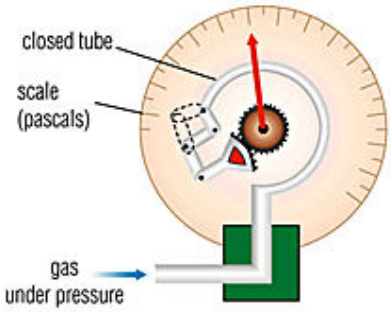
OIL PRESSURE BLUES

So many owners I fear have little or no idea what oil pressure is to a car, what to do if it fails and what the pressure gauge in front of them is telling them. The fact that a crankshaft often almost as heavy as the owner and hard as the Hobs of Hell is able to spin at thousands of revs per minutes in bearings about as soft as tin is a testament of no mean measure to the lubricating properties of oil. The very early engines accessed the various bearings largely through gravity but the need for pressure feeding the stuff soon became apparent.

Oil pumps fitted by the Factory were very efficient and virtually trouble free until ironically with the vee eight they decided to drive the thing direct from the front of the crankshaft. The spiral driving gear whizzed a very small bronze gear around and a few of the latter simply wore out prematurely. This by the way was improved by reversing the metals and having a large bronze spiral on the crankshaft driving a little steel gear on the pump.

One of the original senders seen on the right in the picture here with a modern type beside it. The older sender had a requirement to be fitted by selective choice of washers so that the gauge was in a particular position. This is apparently not a requirement of the new unit.

Cases have occurred where owners/mechanics have corrected a worn bronze driving gear on the pump by replacing it with a steel one but not changed the crankshaft spiral. With steel running on steel the word disaster comes to mind!



Indicating the pressure to the owner must have caused many an argument among designers. They would say that since so many owners had not a clue as to what they were looking at, why bother providing the gauge. The early Shadows reflected this with nought but a light to show whether you had pressure or not. By then however a switch was provided to cut out the fuel pumps if oil pressure failed – a happening that has confused many an owner!

In 1849, the Bourdon tube pressure gauge was patented in France, by Eugene Bourdon. It is still one of the most widely used instruments today for measuring the pressure of liquids and gases. Bourdon also founded the Bourdon Sedeme Company to manufacture his invention. The American patent rights were purchased by Edward Ashcroft in 1852 who renamed it the Ashcroft gauge. Now you have that piece of useless knowledge.

The most common form of Bourdon gauge is the C-shaped tube. As can be seen in the diagram oil (or gas) tries to force itself into the 'C' shaped tube causing the latter to straighten out. The tip of the 'C' moves and this movement is converted through minute levers and gears to a pointer in the gauge.

The original gauges had a copper capillary tube that tapped into the engine oil gallery at one end and finished up at the other end screwed into the back of a bourdon gauge on the dash . These were still used up until the Silver cloud when they went 'electronic'. This involved converting the pressure of the oil to an electrical value which could be sent up a wire to an electric gauge. The value was simply a measure of resistance to battery voltage applied through the gauge down the wire through the sending unit screwed into the oil gallery and thence to earth. The sender had a mechanism whereby the 'C' tube movement varied a resistor changing the amount of current going through the gauge and the circuit which induced a change of reading on the gauge face.

The whole system is maintenance free. The gauges rarely give trouble but the sender units seem to get tired. The latter are not repairable so dig deep when the time comes for replacement. This is usually indicated by consistently low readings or no readings at all. If you want to get an accurate reading of the pressure trot into one of those hose places and they will make up a suitable hose with a gauge and the only other bit you need is a simple rev counter to hook onto your distributor. This is because most engines specify a given pressure at a certain. engine speed. See your workshop manual.

As engines wear, clearances between shafts and bearings increase allowing more and more oil to get through thereby dropping the pressure. There is a good deal of tolerance in pressure but personally I like to see that needle well inside the white bit of the scale. If it is not and an oil pressure check shows that all is up to specs, change the sender. And if you really want re-assurance pull the gauge out and send it with the sender to your favourite instrument man and he will ensure that the calibration between the two units is correct.

JINGOISM IS NOT DEAD

Ashley James, a correspondent from our automotive Mecca shared this result from a Swiss who contributed to a question asked in a British daily, ***'What it means to be British!'***

> Being British is about driving in a German car to an Irish pub for a Belgian beer, then travelling home, grabbing an Indian curry or a Turkish kebab on the way, to sit on Swedish furniture and watch American shows on a Japanese TV.

And the most British thing of all?

Suspicion of anything foreign ".

ARE TOPICS TOPICAL?

I think that most readers are familiar with the genesis of these writings. It seems that the information found in the 700 odd pages is of value to many owners judging by the correspondence I have received over the past four years. We are still working on an index which is no easy task but we will get there.

Owners who are really interested in their cars inevitably are curious about how it works. This may be driven by financial caution, assessment of the mechanic working on the car or maybe even how they can fix problems themselves. Unfortunately the aura built up by the Factory for many years specifically guarded any technical information. This carried through to the post-war years culminating in the early nineties with manuals and all distributed publications being issued on compact discs. Even then quite extraordinary penalties were imposed on dealerships for not returning expired discs to the Factory.

By contrast I understand that should you really want a CD to overhaul your new Bentley GT it is available. I do not know what the new Rolls-Royce makers practice. But all this is pie-in-the-sky stuff. One blessing I can enjoy at my age is that no way will a current Phantom arrive in my drive for servicing or fixing while I am still enjoying my living grease bath!

The saviour for us all in the information field has to be the world wide web. Four of our Branches now have web sites and particularly the Sydney and Melbourne sites are developing technical libraries available to the world. This way anybody wanting to fix a Rolls-Royce or Bentley Motor car should be able to find the information they want on the web. I have been amazed at the single model sites that have grown up as well as those treating the marque generally.

And without shame I will pirate the excellent site run by Ashley James exclusively for pre-Cloud motor cars. In his link section he lists sites I have yet to check but if you are adventuresome read the following:-

Those who are interested in greater detail need to read some of the books that have been published on the subject and these are available from the Rolls-Royce Enthusiasts Club www.rrec.co.uk or the Bentley Drivers Club www.bdcl.co.uk

The RREC is a large club with sections all over the country that organise regular events. The Bentley Drivers Club is smaller and may mean traveling further, but both clubs are extremely hospitable and friendly and give so much help, it really does make sense to join.

In the US there is an RROC www.rroc.org and there's http://www.p3ts.org/gallery.shtml and in Australia there is www.rroc.org.au

Unlike the RREC much of their sites are open to non-members and well worth a visit.

Other Bentley Drivers Clubs around the world include:

U.S.A.: http://www.bdc-texas.org/
Switzerland: http://www.bdc-swiss.ch.vu/
Australia: http://www.bdcwa.com.au/
German: http://www.rrtc.de/
South Africa: http://www.kcandjen.za.net and http://www.dyna.co.za/rr.htm
Japan: http://www.rrbc.jp
France: http://blaize.club.fr/Rolls-Royce_owners.html

Some more specific sites of interest for RR owners:
About S2 Continentals: http://www.brookwoods.com/continental/index.htm
Shadows and derivatives: http://www.rrsilvershadow.com
another about Shadows: http://www.swammelstein.nl
The Rossfeldt-pages: http://www.rrab.com
The 20-Ghost-Club: http://www.20-ghost.org

Pre-war RR, Bentley and DFP: http://www.boddice.co.uk
The official R Type Continental site:http://www.continental.org.uk
Prewarcar.com: http://www.prewarcar.com/
The Silver Cloud Society: http://www.cloudsociety.org/

Restorers, spares and sales

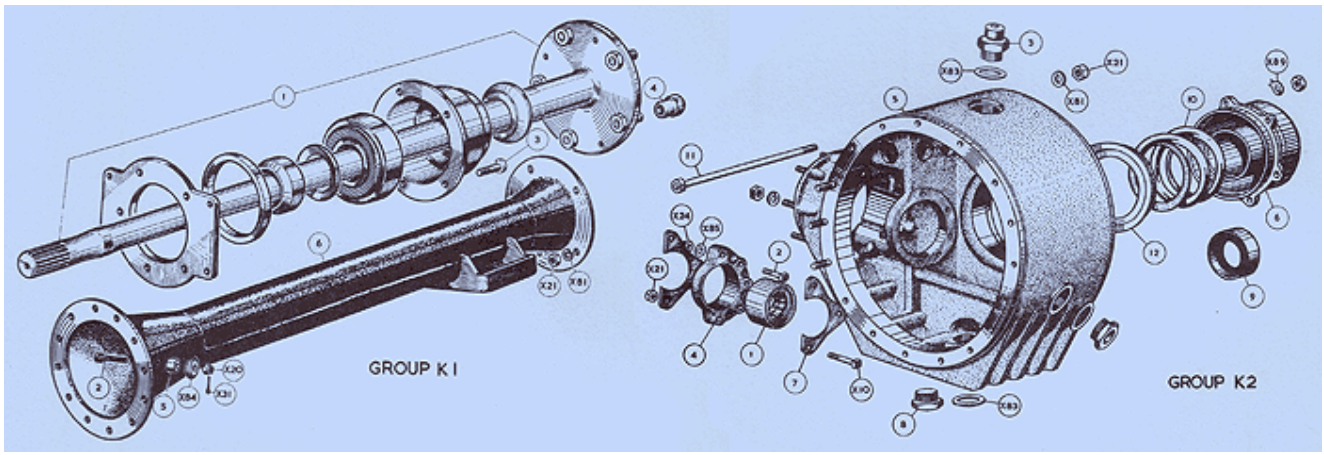
Rear Axle Problems

Those of you who keep an eye on any of the club websites will have noticed that an increasing number of owners are experiencing rear wheel bearing and axle failure, both of which can cause immense damage and be very expensive to repair. The sensible thing to do is replace everything on your car before it fails; it will save a great deal of money and (if the axle is replaced) make the car surprisingly smoother.

Norman Geeson is the expert and not only sells direct to owners but also to the major specialists, so regardless of who you ask to do the job, it is likely that Norman supplied the axle assemblies.

Three different ratios are available from stock; the standard one that is 3.7 to 1, the late R's and S type's 3.4 to 1 and the Continental's 3 to 1. Most opt for the 3.4 to 1 as it improves economy, makes for much more relaxed cruising on main roads and motorways and has no effect on the overall performance of the cars. The 4.5L cars will pull the Continental ratio but it is best to discuss it with Norman before you do it.

Norman Geeson, 23 The Gannocks, Orton Waterville, Peterborough PE2 5DZ Tel: 01733 233294
norman.geeson@virgin.net



There is a wealth of information about classic cars generally at OldClassic Cars.co.uk <http://www.oldclassiccar.co.uk/> which is well worth a visit, and if you go to the Free Ads section <http://www.oldclassiccar.co.uk/freeads/freeads.htm> and scroll down to the links to the Bentley pages, there are items for sale, information and links to eBay sales.

For one of the finest restorers of Rolls-Royces and Bentleys in the UK visit www.alpineeagle.co.uk and ask for Roy Partridge or John Hodson.

Eric Healey is one of the leading specialists for cars of the post war period. As well as restoring the cars he manufactures many parts which have become unavailable from factory and other sources. He has a vast range of parts which include new and used original items, in addition to those reproduced. His prices are sensible and he is always ready to help with information and advice. He is part of the R-REC seminar team and also travels to various overseas Clubs to hold seminars on their home territory. Visit his site at www.healeybros.co.uk

Jolley Engineering: Manufacture a range of components and cylinder heads for motorsport and classic cars. Of particular interest to owners of our cars is the excellent electronic ignition conversion they supply. It replaces the points backplate which can be kept as a spare, they are no components external to the distributor and it is extremely simple to fit – three sets of points and it has paid for itself! Visit: http://www.classicheads.com

Flexolite make filter adaptors and hoses for most post-war British cars including the three different full flow filters used on MKVI, R Types, Silver Wraiths, Silver Dawns, S1s and Silver Clouds: www.flexolite.co.uk

Jack Barclay are the official pre '65 R-R spares distributor and this links list everything they hold. Club members get 10% discount: http://www.jackbarclayparts.co.uk/

Dyer's International Ltd: http://www.rrdyers.com/rolls-royce-bentley-parts-spares.html

LED light conversions to improve your visibility to other road users without spoiling the appearance of the car. Note that LEDs are polarity sensitive. http://www.3dzled.com/

Service Centre Exhausts: http://www.servicentresystems.co.uk/index.htm

Hillier Hill, specialist Rolls Royce and Bentley dealer/restorer: http://www.hillierhill.com

FJ Payne and Son are one of the countries top engine reconditioning companies and that they specialise in amongst others; Rolls-Royce and Bentley Engines: http://www.fjpayne.com

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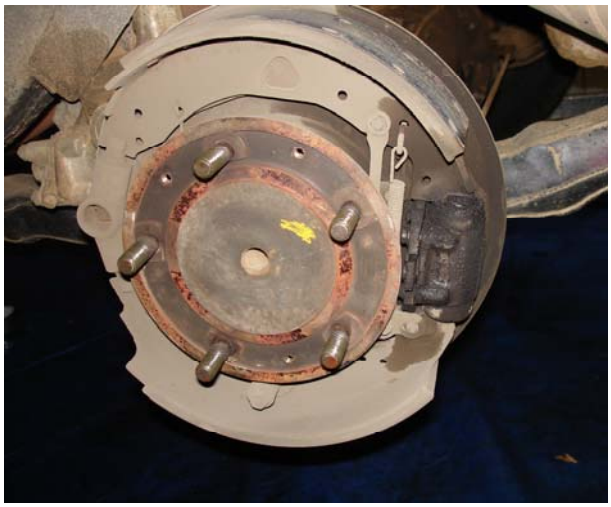
ONE OF TWO GADGETS THAT CAN STAND BETWEEN YOU AND CERTAIN DESTRUCTION

This Damoclesian threat really only applies to owners of post '55 pre-Shadow cars. The gadget is the combined hydraulic double acting piston that applies the rear brake shoes in your Cloud. If they should fail the wide rod seen protruding from the assembly, working through rollers and cams manually applies the same brake shoes.

When you first apply the brakes with these cars it is this rod which is pulled and the hydraulics follow an instant later when the mechanical servo on the side of the gearbox comes into force. More basically the handbrake also operates this mechanical application.

The device operates in a climate of great heat dirt and lots and lots of brake dust but then you the owner reading this know this because every 6 months you remove the drums grab a pressure pack can of this new fangled Brake Cleaner and hose the whole mechanism out. Use a can per wheel and keep your hands clean.



A small problem here, the wheel cylinders are leaking, very slowly and barely noticeable by observing the glass reservoirs. The only solution is to dismantle the brakes and install new seals. If the bore of the cylinder is scored it must be sleeved with stainless steel which should last forever.

Dismantling of the rear wheel expanders is quite simple. While you are at it remove the adjuster clean it out, grease well and reinstall.

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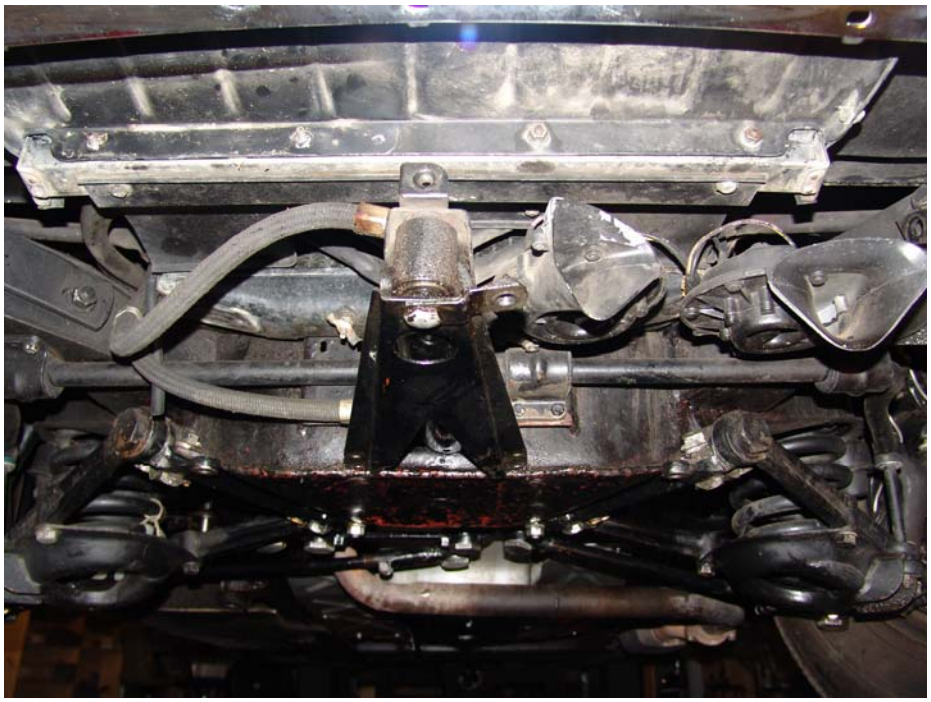
POWER STEERING CYLINDER LEAKS

The Silver Cloud was the first Factory production attempt at power steering. They typically tried to go one better than the then conventional systems used by most other cars which placed the pushmepullyou hydraulic mechanism and the valving to control this effort, in the one box and split them. The valving was comfortably housed at the bottom of the steering column but the actual physical power assistance was hived off to the main steering pivots. To achieve this a basic hydraulic ram was mounted on an extension on the front axle with the plunger connected to the primary steering relay lever by passing the former through a hole in the front cross member.

The ram is simple in design and consists of a piston with conventional rings, a bearing to support the piston rod and a seal to keep the oil in. Eventually they leak but removing and overhauling them is straight forward and a good excuse for not helping with weeding the vegetable patch!



Here is the ram mounted between two fairly substantial support plates which in turn are bolted to the front cross member. The hydraulic supply hoses that feed into the cylinder at either end can be seen on the left. This is a later installation on a Phantom where the forward hose feeds into the top of the cylinder rather than the side – a feature of the earlier cars. The latter made bleeding the system more difficult.

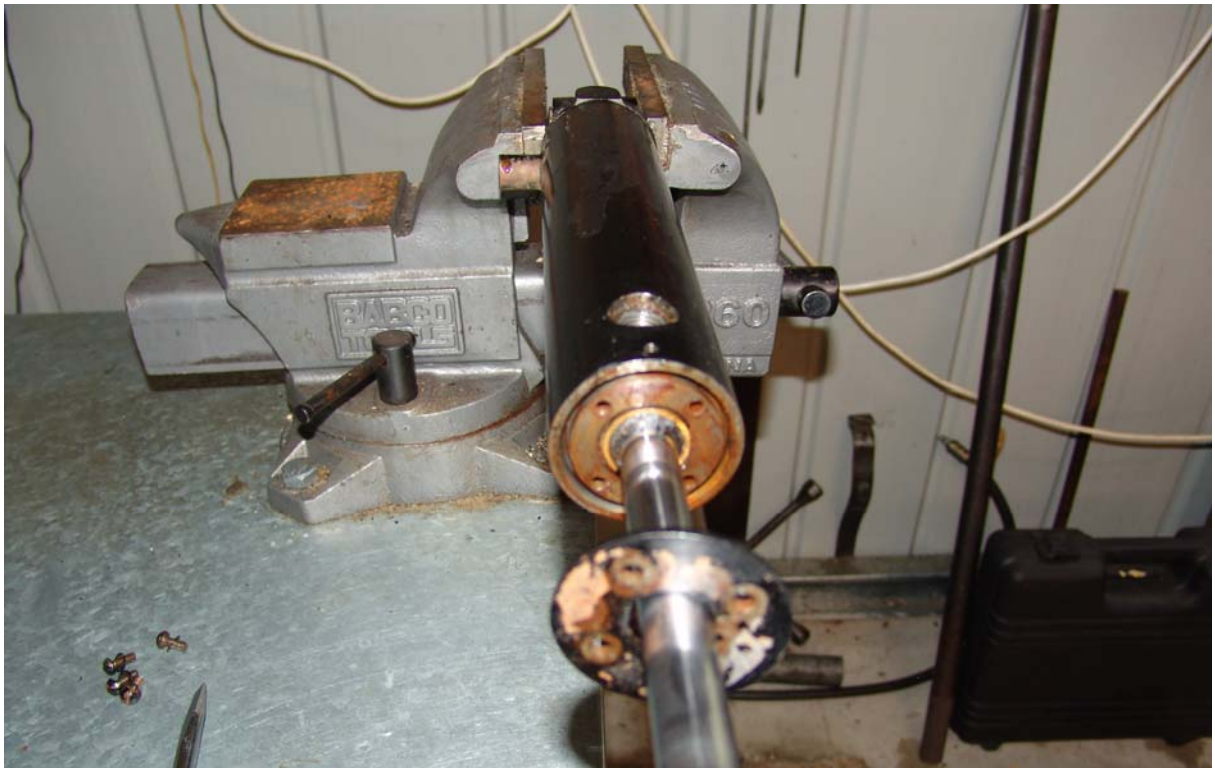
The vertical bolt seen at the front of the ram takes the thrust of the unit and is mounted through a usual silent bloc bushing.

The plunger emerging from the rear of the power cylinder and passing through the front cross member. Here the lower support plate has been removed and the cylinder puled well forward. The front anti-roll bar can be seen above the plunger.

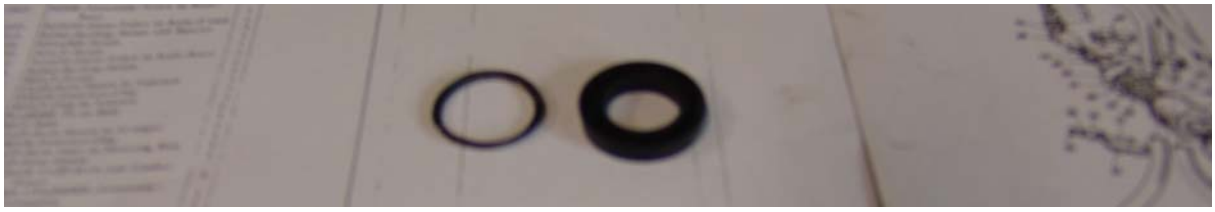
And on the other side, the plunger emerges to connect with the primary steering relay lever. This is the disconnect point for the ram. The lock nut seen on the plunger shaft is loosened after recording the number of threads exposed behind it and the shaft can then be screwed out of the swivel piece on the relay lever.

The thread count facilitates re-installing the plunger back where it was designed to go! To avoid damaging the shaft there is a spannering flat provided which can be seen behind the lock nut.

Obviously the prime care with this job is to protect the surface of the ram shaft from nicking or scoring.
Having pulled the ram out the seal retainer plate is removed after extracting four screws. This exposes the plunger bearing which in turn is located by a thin wire circlip cunningly congealed (as me old mate Ernie used to say) just inside the cylinder . To get this out of its groove, poke a prong down the little hole seen here on the top of the cylinder adjacent to the forward feed point.



And here is the grotty plunger bearing and piston complete with rings. The large hole in the bearing receives the front feed nipple. The piston is a very simple device with very ordinary rings.



The lip seal on the plunger shaft has a shaped spreader (seen left above) that snugly fits into the back of the seal moulding. On top of the seal is placed a fibre washer and a plain washer (see right below) for protection from a split brass wiper (seen left below) which cleans road grime off the shaft before it enters the seal!

Re-assembly is straight forward. The Factory make a up a kit for the operation which includes all the seals and a new retaining circlip for the piston (not pictured).

STOP PRESS: All the above is for academic interest. As local readers (if I have any) would be aware the Phantom was kept at home in the Mews when it was supposed to be attending a local Club rally recently, because you would have guessed, a leaking ram seal. And I had only replaced the rotten thing not two weeks before. After several visits to my shrine, Tom Small, that scion of spare parts at Bentley Sydney, when I abused him soundly for selling me what amounted to useless bits, calmly pointed out that they do nothing with the rams simply shipping them off to Penshurst Power Steering who machine the bearing and insert a modern seal!! David the very helpful principal of that firm pointed out to me that the seal sold by the Factory is a 60 year old design!!

The last job is to bleed the system. Three quarters fill the power steering pump with transmission oil, have the wheels just off the ground and start the engine. Turn the wheel from lock to lock. Listen for a change in noise from the pump. Do not let it run dry or it will self destruct. When the oil gets low there will be a very definite whine and gurgle from the pump amplified by the reservoir. Switch off the engine, top up the pump and start up again. Finally adjust the oil level and take the car for a run. If there is any ‘lumpiness in the steering there is still air there. Avoid turning the wheels with the tyres on the ground lest you grind some nice flats on them!!

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