

TEE ONE TOPICS

Number 20 January, 2003

Disclaimer

The Tee One movement is not in any way affiliated nor associated with the Rolls-Royce Owners' Club of Australia nor any other organisation. Its aims are to spread knowledge and information about proper motor cars that would not normally appear in club journals nor any other publications readily available to the public.

The knowledge of owners and enthusiasts that is shared in these gatherings is offered/received without any form of guarantee or authority. Individuals are solely responsible for their own cars and actions and the use to which they put the information gained.

ACHTUNG!



Photo - Autoindex

WOW!

Well it is out – the new model from a different kitchen. What a task the spin doctors must have had selling this one. Not only is/will there be, aversion to a new model, but Mein Gott it is being manufactured by foreigners who could not possibly replicate the mechanical ethos, the legendary mystique and the reactionary aversion to innovation. The carpers and critics will have a field day most of them forgetting that we are just so fortunate to have a prestigious, capable and financially sound successor to assume the mantle of the old Company. The following I pinched off autotindex.org which has more pictures if you care to look. Subsequently Roy Tilley of the New Zealand Club found an RREC entry in the site www.chichesterweb.co.uk which includes some very interesting background to the whole project.

Rolls-Royce Motor Cars Limited has revealed the all-new Rolls-Royce Phantom today at the company's new manufacturing plant and head office at Goodwood in West Sussex, UK. It is just four and a half years since BMW Group became the custodians of the Rolls-Royce marque for automotive use, in July 1998, and committed to launch a new company, a new plant and a new motor car in January 2003. Entirely new from the ground up, the Rolls-Royce Phantom captures the essence of the world's most famous car brand, interpreted in an utterly modern way. Influenced by the guiding principles of Sir Henry Royce, "Strive for perfection in everything you do. Take the best that exists and make it better. When it does not exist, design it," the design and engineering teams began with a blank sheet of paper.

The result is a motor car which incorporates cutting edge engineering technology, unparalleled quality and the finest in hand-built craftsmanship. The Phantom has a light-weight aluminium space frame body, a V12 engine which develops tremendous power and torque and a style, inside and out, which is every inch a Rolls-Royce.

Designers immersed themselves in the heritage and design principles which had made Rolls-Royce world famous and found particular inspiration in the Phantom I and II models of the 1930s, the Silver Cloud of the 1950s and the Silver Shadow of the 1960s. Features like a long wheelbase, a short front overhang, a deep C-pillar, a long bonnet and a particular stance, which made these motor cars look as if they were lightly accelerating even at a standstill, were fundamental design elements and were incorporated into the new Phantom - quite apart from the famous grille and The Spirit of Ecstasy mascot.

On the inside, the finest leather, Cashmere trim and fitted cabinetry have been used to create an atmosphere which is simple, yet of unquestionable quality. Access is via coach doors, which open from the centre of the car (the rear doors hinged at the back) reminiscent of the classic Rolls-Royce era and which have been chosen to give easy access to the rear. Combined with a flat floor they allow passengers simply to walk in to the rear, turn and sit down. A slightly curved lounge seat helps to create a social environment.

The Rolls-Royce Phantom is easy yet rewarding to drive - something which is vitally important as the majority of owners will drive themselves most of the time. The high driving position gives an excellent view. Intuitive and effortless to drive, the Phantom is beautifully refined and precise in its responses. Self-leveling air springs, electronic dampers and multi-link rear, double wishbone front suspension combine with the long wheelbase and high profile tyres to give the perfect combination of ride and handling. The large wheels and tyres have been specially developed for the Phantom: it is the first car in the world to feature the advanced PAX run-flat tyre system as standard, which allows the car to run for 100 miles at 50 mph after a puncture.

On the move, the purpose-designed 6.75-litre V12 engine provides huge reserves of power and torque. The Rolls-Royce Phantom will accelerate from 0-60 mph in 5.7 seconds (0-100 kph 5.9 seconds) and on to a limited top speed of 149 mph (240 kph).

Behind the wheel, the low-down torque wafts the Phantom swiftly yet effortlessly from tick-over. Peak torque is 720 Nm (531 lb ft) at 3500 rpm, but more importantly 75 per cent of that total is developed at just 1000 rpm. Maximum power is 460 PS (338 kW).

The latest in combustion technology - variable valve lift, variable valve timing and direct fuel injection - helps produce excellent fuel economy for a motor car of the Phantom's size and power. On the EU extra urban cycle it returns 25.7 mpg (11.0 l/100 km) and a combined figure of 17.8 mpg (15.9 l/100 km).

As well as the main features of the Phantom, there are a number of delightful detail touches which help to make this such a special motor car - something in which Rolls-Royce has always taken pride. For example; the electrically retractable Spirit of Ecstasy, which can be lowered out of sight whenever the Phantom is parked; the wheel hub centres, bearing the interlinked double-R logo, which remain upright; and the umbrellas which will be found stowed within each rear door.

Tony Gott, chairman and chief executive of Rolls-Royce Motor Cars, says: "For nearly 100 years, Rolls-Royce has

been the icon of motor engineering and design. The name has entered the language as an expression of perfection. The new Rolls-Royce Phantom is, we believe, entirely in keeping with that long and illustrious heritage, yet is totally contemporary in its design and technology."

"Its name evokes the personality of the Phantom I and II models of the 1930s and reflects timeless values of quality, distinction and authority, combining the best of the past with the best modern design, engineering and technology to take Rolls-Royce firmly into the 21st century."

A new home at Goodwood

When sites were being considered for the new manufacturing plant and head office, it was established from the start that it should be in Britain - the home of Rolls-Royce - but a number of other factors were taken into account. Chiefly these were to have a large enough site, with good transport links, access to a test track and proximity to a skilled workforce. Also, as many Rolls-Royce customers would wish to visit the plant, it was important that it should be in an attractive part of the country.

Goodwood stood head and shoulders above the other sites under consideration when measured against these criteria.

The Goodwood facility combines the latest in engineering technology with the finest in craftsmanship skills. The new Rolls-Royce Phantom is precision hand-built in a way the automotive industry has never seen before.

Rolls-Royce Goodwood is an inspirational place to work, with extensive use of glass to provide natural light throughout. The buildings blend into the environment and are sympathetic to it, for instance featuring Europe's largest "living roof". Thousands of sedum plants not only change colour with the seasons, they also provide insulation to save heating energy in the winter months.

This original and environmentally aware manufacturing plant reflects the theme of uncompromising excellence, which is central to the whole project.



NEXT SELF HELP DAY

61 Learmonth Drive KAMBAH Saturday 18 January 2003

George Shores will be supervising us all

Bill Fleming has volunteered for the appointment of Chef de Jour and will be catering for your stomach so **please let us know if you are coming.** All are welcome – if you know of someone who is interested in the cars or has one, bring them along.

A couple of demonstrations will be carried out on Silver Shadows during the day. They will be:-

- Re-gassing of accumulators with nitrogen in situ
- Replacement of rear springs.
- Inspection of battery cables which are starting to show serious wear

Members are welcome to participate in maintaining their own vehicles. Suggested activities are:-

- Oil and filter change (bring 9 litres and a new filter)
- Fan belt and coolant hose inspections.
- Grille off and heat exchanger clean and inspection.
- Wheels off and inspection of brakes and suspension.
- Maintenance of body drainage points.
- Clean and lubricate seat mechanisms.
- Scuttle clean and filter replacement.
- Battery box clean and maintenance.

Some filters will be available however please bring your choice of oils and lubricants. We can supply grease. Tools, jacks and stands will also be welcome.

R.S.V.P Please call either George on 02 6255 3366 or 041 1983 3777 of Bill or Peter on 6296 5893 or 0438 888 011 or 0408 486 683 and let us know if you are coming. If you need advice on what to bring for work on your car, best talk to George.



DUBIOUS TRIVIA ABOUT A TIME LONG AGO

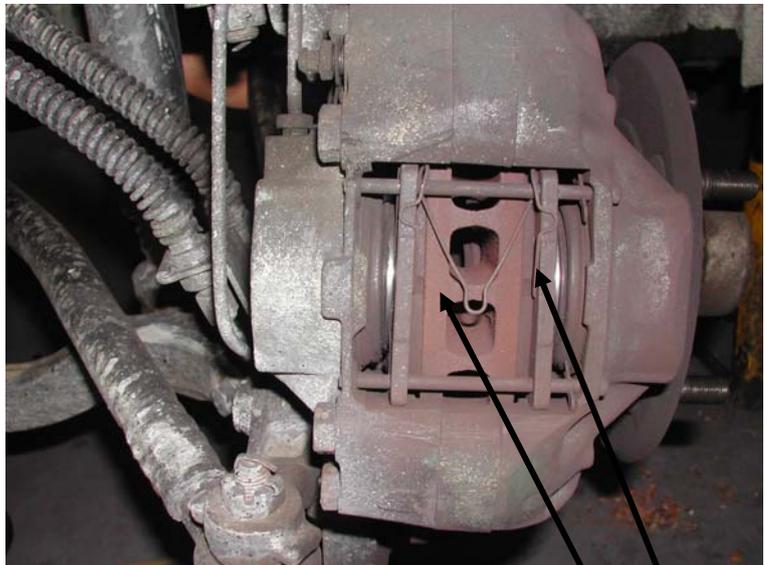
Lead cups were used to drink ale or whiskey. The combination would sometimes knock people out for a couple of days. Someone walking along the road might take people for dead and prepare them for burial. They would lay them out on the kitchen table for a couple of days, and the family would gather around and eat and drink to wait and see if the "dead" might wake up. Hence the custom of holding a "wake."

England was tiny and getting overpopulated, and they began running out of places to bury people. So they dug up the existing coffins to take their bones away and reuse the graves. In reopening the coffins, they found that one of every twenty-five had scratch marks on the inside. They realized then that they had been burying people alive. So they began tying a string around the buried person's wrist that led up through the coffin to a bell, which could be rung by the person if he or she awoke. Someone, of course, would have to sit out in the graveyard to listen for any bells, hence the "graveyard shift." In this way, they would know if someone were to be "saved by the bell" or was indeed already a "dead ringer."



A LITTLE BRAKE INSPECTION.

There are probably few events that are capable of changing one's bodily functions quicker than total brake failure. Although the likelihood of this occurring in your beautifully maintained car is extremely remote, it is as well to be aware of the enormous reliance drivers place on this mechanism. When you consider the amount of energy that has to be dissipated to pull up a couple of tons of hurtling metal and all done through a few square inches of brake lining it is a wonder we are game enough to exceed 10 kph!



The picture at right from one of my favourite Spirits (excluding the single malt variety!) is a view you should find about every three months. It involves taking the wheel off and having a good look at the calipers both from and rear and rear on the rear brakes (?) first of all to see that you have plenty of brake lining and secondly to inspect the general condition of the area. For those that have not ventured this far before the picture shows the brake rotor, the thick disc of metal with the large peripheral holes through it, surrounded either side by the brake pads. The metal backing plates, arrowed, are sometimes mistaken for brake lining when the brakes are very worn, but here you can see a nice sandwich of lining against the rotor that

should do this car another few thousand K's. About 1/8" is about the smallest dimension allowed here before replacing the pads.

Assuming all is well with your inspection so far, have as good a look as you can at the rubber sleeves behind the brake pads on the pistons that apply the brakes. These are subjected to considerable temperatures and eventually go brittle and crack exposing the pistons beneath to the ravages of rust. If this has happened it is time to pull the calipers off, clean them up and fit new seals.



BESPOKE CARS

The term bespoke really belongs to another era and was last really used in the clothing field particularly men's apparel. As far as I can establish the word is a corruption of best spoken – meaning that someone's clothing was that, that was commented on most favourably! The essence in any case was to create individuality in a person's attire but now it seems the word has been corralled by the high end of the car industry. And so in wandering around the Bentley site I find the following temptations which I share with you. But first the Company spin.

Bentley Mulliner is the specialist personal commissioning department of Bentley Motors. Although newly launched, it can trace its ancestry back more than 200 years, and continues Bentley's fine reputation for hand craftsmanship and the individualisation of its cars.

Services include the building of unique one-off vehicles, such as the State Limousine recently built for The Queen to celebrate her Golden Jubilee, to the fitment of bespoke components, to building personalised cabins. Long wheelbase limousines and armoured vehicles are also a major part of its business.

There are 120 people employed by Mulliner. They include world-class coachbuilders, coach trimmers, cabinet makers, coppersmiths, sheet metal fabricators, electronics specialists and fitters, all employed in a dedicated workshop within Bentley Motors' Crewe factory. The workshop has its own wood mill and wood shop, its own trim shop to stitch and cut leather, its own steel fabrication area that can hand make body shells or modify existing ones, and a tool making area to make moulds for new components. Bentley Mulliner coachbuilders can craft the most luxurious cockpit imaginable, or make a mobile office capable of keeping a busy chief executive in touch with his or her business. Almost no commission is too small, or too big, for Bentley Mulliner. A 'typical' job ranges from as little as £2,000 to as much as £300,000 - on top of the price of the standard production Bentley. About half of all Bentleys built now get Bentley Mulliner's treatment.



The most popular start point for a commission is fitting items from an extensive portfolio of Bentley Mulliner options. The choice may be as simple as fitting a gear knob hand carved from solid wood, or fitting a chrome radiator shell or hand embroidering the leather upholstery. DVD players, either using screens fitted into the rear headrests or fold down screens fitted into the roof, are also popular requests.

The list of fitted options is regularly supplemented as features gain

popularity. 'One of Bentley's best American customers recently asked for a special stainless steel fuel filler flap for his car, complete with enamelled Bentley wings,' says Killick. 'We had never made one before, but happily took on the challenge and made one for his car. We all agreed, however, that this was a feature that had appeal, so it was added to our portfolio of options, and is now proving popular.'

Other popular Mulliner options include updated in car entertainment (ICE) systems, enhanced satellite navigation, a bottle cooler fitted behind the centre rear armrest for champagne or wine, cocktail cabinets, divisions between driver and rear seat passengers, electric rear blinds, folding solid wood tables and curtains for added privacy. All are made, or fitted, by Bentley Mulliner craftsmen. The hand carved wooden gear knob takes Mulliner's woodworkers 12 hours to make. 'Even a standard hand-stitched leather steering wheel takes 18 hours to create,' points out Killick. The curtains, silk on the inside and hardier cotton on the outside, take two weeks to hand make and two days to fit.

The most popular DVD or TV screen size is 6.5 inches fitted into rear headrests, but the 13 inch dropdown screen is increasingly popular. These are usually fitted with cordless infrared headphones.

One-Off Customer Requests

Customers are not limited to the Bentley Mulliner options portfolio. They can order anything they like - as long as it can be built, and it is legal.



Leather is easily the most popular upholstery material for Bentleys, but Bentley Mulliner is happy to consider other hides. Its craftsmen have trimmed cars in buffalo and ostrich skin. 'Our aim is to match the customers' needs with the appropriate materials, but in line with our ethical values, we would never countenance the use of endangered or unsustainable materials,' says Gay. Personalised hi fi systems are also common. Some customers order computer game consoles, such as the Sony PlayStation.

Gay estimates that Bentley has built cars with about a dozen different types of timber trim, and is always willing to take on a new challenge. 'Sometimes customers come to us with a favourite tree in their back garden, and want their wood trim made from this tree. It's not cheap



because if it is a new wood we need to do safety tests and durability tests, and also must ensure that it looks good when polished and lacquered. But if we can do it, and the wood is not too rare a species, then we will.'

Individual cabin designs are also frequently requested. To show its sheer capability, the Bentley Mulliner team built a very special car for the recent Paris Motor Show. It took four months to develop and build, and involved 10 Mulliner craftsmen. Project leader Phil Copestake, a veteran of bespoke engineering, says it was probably the most challenging job

he had ever been given.

'Our design department gave us the drawings, but we had to interpret them, using our experience as craftsmen. This is quite typical.' Copestake personally selected seven blocks of North Yorkshire English oak, chosen for their shades and grain and character. These solid blocks were carved and matched with burr veneer to form one of the finest cabins ever seen in a Bentley. The carved solid wood was used in many areas of the cabin, including the door trim and the division rail between the front and rear occupants.

Other features of the Paris Show car were a 22-inch LCD entertainment screen, which drops down into the central partition, a 5.1 Dolby surround system and a rear bridge console with a cedar wood cigar humidor, glass cabinet and pop-up drinks bar containing decanters and tumblers. Instead of cup holders, there are champagne flute holders. There is a refrigerated bottle cooler, and fibre optic spot lighting in the rear compartment. The car also has a privacy rear window - a rear window design with a smaller aperture than the normal Bentley rear windscreen. Eighteen hides were used to trim the front and rear compartments.

A Bentley takes three weeks to trim in 'standard' leather upholstery. A bespoke interior typically takes another one to two weeks.

A handmade bespoke interior, similar to that offered in the Paris show car, takes 16 weeks to design, develop and hand build. 'There is six weeks of hand carving alone,' says Mr Copestake. Even the lacquering is hand sprayed and hand polished, as it is on all Bentleys.

Another recent commission came from a busy company chairman who approached Bentley Mulliner to create a mobile office. The tiny but powerful 1 GHz on-board PC is one of the smallest in the world, yet offers a 20 G-byte hard disk and 256 M-byte of RAM. It provides full mobile office capability, featuring internet, fax and email on the move. The keyboard is cordless infrared.

Another customer, a motor sport enthusiast, asked Bentley Mulliner to make a road-legal racing Bentley. The result was a unique Bentley based on the Continental T coupe. The front bumper, headlamp surround panels, sill and rear bumper were all restyled to give the car a leaner and lower appearance and sports vents were fitted to the front wings. The car was also redesigned as a two-seater vehicle - the normal Continental T is a four-seater. The result was a high-speed 170mph road racer.

Superstitions can also lead to unusual bespoke treatments. Says Richard Charlesworth, director of special customer commissions: 'One of our customers liked to touch wood before doing anything he thought was the least bit risky, such as driving. He asked us to think about this superstition and come up with a solution. We suggested making his Bentley's starter button out of wood. He thought it a brilliant solution.'



INDIVIDUALITY

Nicholas Lang sent in this picture of an early Shadow driver's door panel. No your car is not incomplete it is simply one of the very few 'customised' cars of that era. The plan of the Board at the time of the Shadow was to get as many cars on the road as possible and requests for individualism were discouraged by savage quotes from the



Factory. It seems with this car that the new owner prevailed in the interests of safety since the secondary switch below the main switch cluster was to isolate the rear windows! This feature was standard on the Spirit and may have even been used on the Shadow 2! The Americans went overboard with this problem and introduced secondary buttons to use for raising windows for the last 4 odd inches. The idea was that you avoided children beheading themselves prematurely.

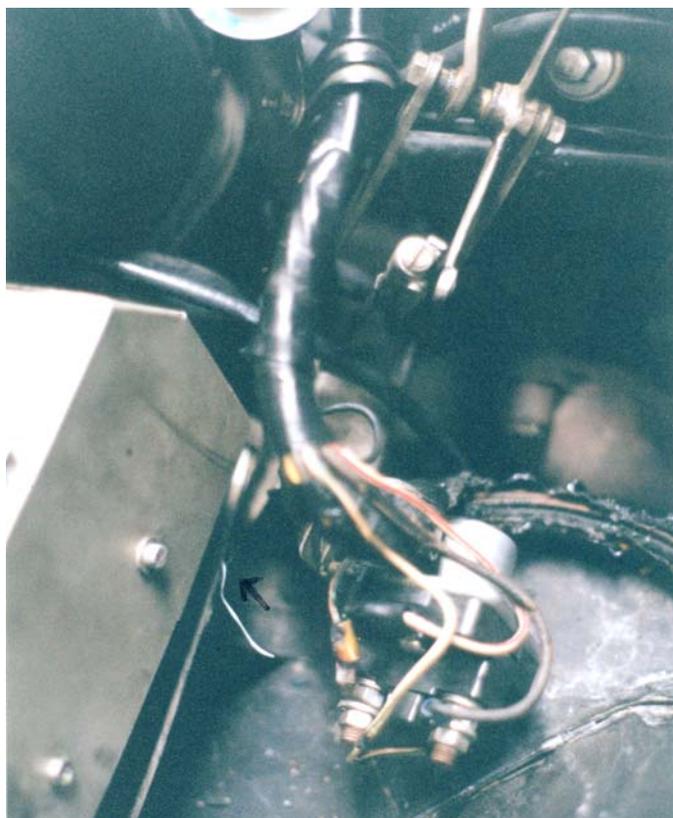
A THREE LEGGED DRIVER?

Another pic from Nicholas Lang on Shadow 'deviations' showing the installation of a foot



operated horn button. The was a very sad Silver Cloud in Canberra for many years that had one of these fittings known generally as an Alpine Horn. Usually operating a separate and very loud horn the button allowed the driver to negotiate hairpin bends with great dexterity using both hands to control the steering wheel while

playing a merry tune with his left foot. No doubt James Bond had a similar option fitted to his cars!



POTENTIAL DISASTER!

Nick also sent this picture of an early Shadow bulkhead with a very exposed starter solenoid. Close inspection will reveal a very burnt cable snaking away to the right. Apparently the handbrake cable which is seen passing around a jockey wheel at about 10 o'clock from the solenoid was not tension further down under the car and on release snaked out and wrapped itself around the two very exposed solenoid terminals. Two lessons here. Keep an eye on the cable mechanism (a similar system was used on the S Series). It requires lubrication and cleaning. And renew major terminal covers. They are available and really

essential for situations like this.



EVER ONWARDS

Meanwhile back at the ranch the Crewe mob are gaining some breathing space and getting ready for replacements of the Continental R and the Azure. My surprise was reading the number of these cars produced to date considering they nudge the million mark here in Australia! The following is the relevant press release.

Bentley Continental and Bentley Azure final series announced

Detroit, 5th January 2003... Bentley Motors has announced that it will be producing Final Series editions of the Bentley Continental R coupé and Bentley Azure convertible. Only a limited number of Final Series models will be commissioned between now and mid-2003 as a fitting tribute to Bentley's continued presence and domination of this exclusive sector. Although they will be the last of the current model type to be built at Crewe, plans for a new two-door range of luxury, performance Bentleys to replace the much admired Continental R and Azure range, are set to reassert Bentley's position in the upper luxury performance car sector.

Based on the current range, both the Continental R and Azure Final Series models will feature a series of performance-orientated additions designed to complement the already extensive Bentley Mulliner specification, further enhancing the car's 420bhp appeal. Both models, considered to be the most complete expression of two designs that were originally launched in 1991 (Continental R) followed four years later by the Azure, are set to become highly sought after collectors' items.

Since their respective debuts, 1533 Continentals R's and 1235 Azures have been built at the Crewe factory, confirming their enduring appeal as the ultimate expression of dynamic, yet luxurious high-speed tourers.



The Continental R will feature sporting five-spoke wheels and high-performance Bentley branded brake calipers finished in bright red. Wide wheel arches accommodate the 18 x 9.5J wheels and tyres. The

lower front bumper has been restyled and incorporates three meshed air intakes to match the front quarter panel wing vents.

As befits the elegant Azure, five-spoke 18-inch wheels have been specified. A 'Mulliner' badge on each front wing pays discreet tribute to the coach built heritage of the two-door range. Inside, special attention has been paid to developing a unique Bentley Mulliner crafted interior that echoes the marque's sporting traditions.

The most distinctive feature is a stacked central instrument cluster that includes a turbo boost gauge, with chromed bezels and a red starter button. The sporting theme continues with a chromed and leather finished gear lever and drilled alloy pedals.

Diamond quilted sports seats and door inserts are complemented by a choice of either dark stained walnut veneer or black lacquered finish. In the former instance, the winged Bentley motif features on the waist rails to complete the highly detailed interior.

An upgraded Alpine audio system with MP3 playback and CD multi-changer also forms part of the interior specification.

"Both the Continental R and Azure form an integral part of Bentley's development as an independent marque. These Final Series models are the purest expression of two cars that combine the uniquely Bentley blend of hand-crafted luxury with supreme performance," said Adrian Hallmark, Bentley Motor's member of the board for sales & marketing.



In the best and unrivalled traditions of the marque customers are able to specify over and above the features offered, to develop their own unique finish in conjunction with Bentley Mulliner, the specialist coachbuilding and bespoke craftsmanship, styling and engineering team at Bentley Motors



MORE ON THE CLOUD III HEATING AND DEMISTING



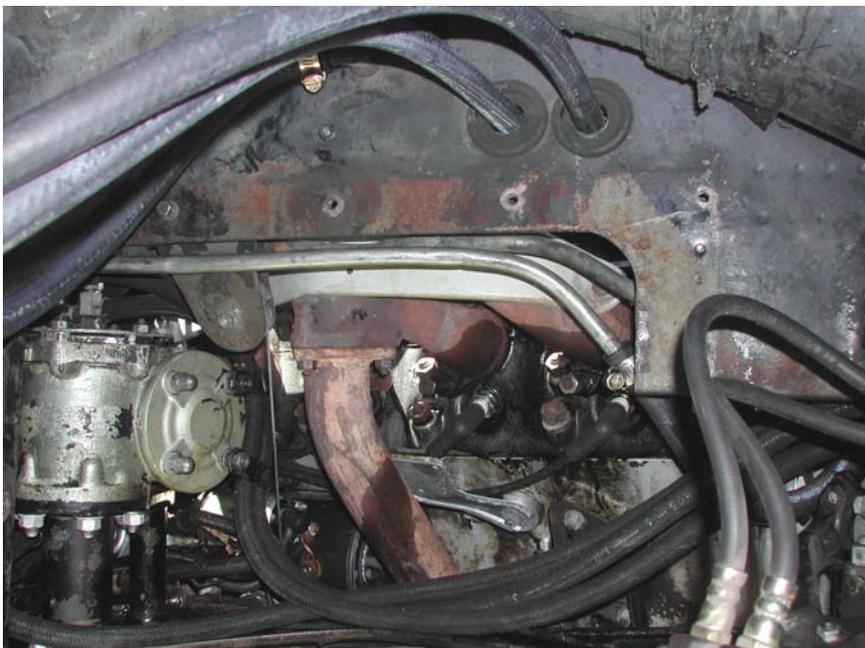
The scant references in the last edition to this subject elicited a number of enquiries as to how it all went together so I will bore you with more photos and explanations for no other reason than it is a reference for the future restorer. The picture on the top left shows the return manifold pipe that screws onto the right hand side of the water pump. Both the upper and lower systems return their coolant via here. The pipe shown differs from that fitted to the S2 series in that the pipe pointing down is not fitted as both upper and lower systems use the same coolant flow which returns via the upper or horizontal pipe shown here. The plate surrounding this assembly is the support for the air conditioning compressor which apparently went through a number of iterations

to overcome a problem with vibration.

To the left we have the short hot coolant feed pipe for the upper system and the extraordinary return pipe that wanders under the water pump back to the right hand side of the engine and hooks up with the water pump return. Both of these pipes link to the left hand upper system water tap. This from experience is the Achilles Heel of the system since the tap is not often used and the piping simply clogs up. Phil Sproston pointed out to me that it is a good idea to open both taps when the car is idle. This allows the rubber bung in the tap to recover and the system to circulate and keep the pipes clear.



Here at the bottom left hand corner is the right hand or lower system heater tap. The sharp 'U' bend hose connects to a metal supply pipe to the lower matrix. The hose snaking behind this is the supply line to the upper matrix under the mudguard. And seen just above this last hose the return line for the lower system feeding into the return manifold on there water pump.



The two pipes running along the top of the mudguard window are often the cause of rattles and should be secured with clips. The lower pipe feeds the top matrix through the valance panel right at the rear of the engine compartment. The upper pipe brings coolant from the rear of the 'A' bank head to the right hand lower system heater tap.

To check the functioning of the two heater taps both these pipes should remain cold with both systems turned off. If they are hot then the taps are either leaking or need re-setting. The rubber coolant hoses seen above feed the matrices under the mudguard. The right hand hose is the return from the lower matrix that joins onto the water pump manifold, the middle one is the feed to the lower matrix and joins onto the side pipe of the right hand water

tap and the left hose in the shadows is the return from the upper matrix. So as you can see it is all quite straight forward.

Caution:- Rubber coolant hoses particularly in this application have often been in place since before you were born. Effectively they are glued to the pipes where the clamps hold them. The pipes on the matrices while quite accessible are only soldered onto the tanks and will not stand abuse. For this reason remove the clamp or cut through it diagonally then using a box-cutter or sharp knife, gently excise the rubber from the pipe. **DO NOT TWIST OR WRENCH THE HOSE.** If you do there is a good possibility you will break the feed pipe off the tank and it will be necessary to remove the grille, the bonnet, the bumper bar, the mudguard and the front right hand door before you can make a repair.

PORTUGAL, INDICES AND PRE-WAR HUBS

For those of us with access to computers we are most fortunate in sharing information and advice with owners and enthusiasts all over the world through the Club Forum <http://rroc.org.au/> The forum is free and accessible to anyone. I gather its architect and moderator Chris Gillings occasionally gets spam and downright insults, but that is a small price to pay for the information that comes in otherwise.

On another tack, you will be aware of my continuing campaign for access to information both technical and practical to help keep our cars on the roads. It has always fascinated me as to what dealers believe the owner of a '74 Shadow should do when he breaks down North of Townsville. Do they really expect him to freight the car to the nearest dealer to find that there is a loose condenser in the distributor? Whatever the answer the Tee One Group and a growing body in the Eastern Branches of the Club together with the American and British Clubs are working to provide an accessible, practical and helpful fund of information.

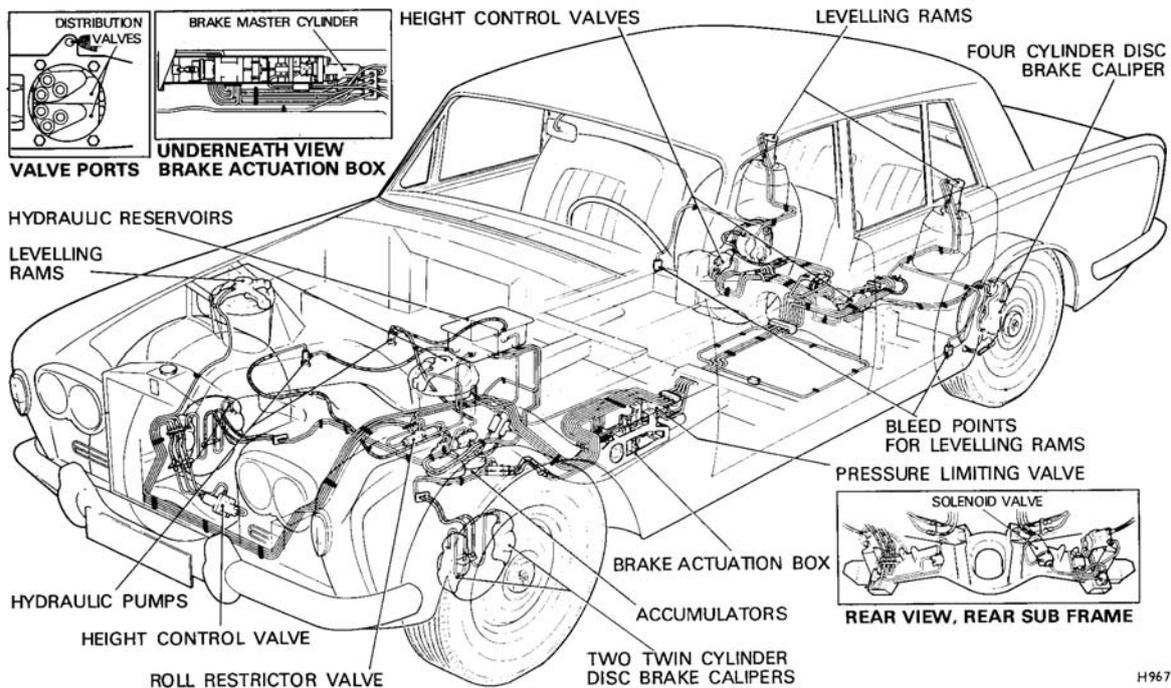
And Portugal you ask? A fellow with a magnificent Park Ward 20/25 asked the forum in fairly painful English how to get the rear hub off of his car. Someone from another Club, undoubtedly with the best intentions referred him to a book from the RREC and also gave him a page reference to that Club's Bulletin. I like to think we can do better than that so I emailed the six page instruction for the removal and happily he had the hubs off in a trice. This raises the question of whom do we help. The overseas Clubs are sealed to the extent that you require membership and a password to access their repositories of information. If they did not do that they would have no income and no resources to collect the information. As to people like our Portugal friend one hopes he joins a Club but I have difficulty being totally unhelpful when the condition of a beautiful car is at stake.

As to indices, more than a year ago that indefatigable Malcolm Yell in Bowral pointed out that in his opinion there was a lot of information in these pages which should be more accessible. It was a foolish observation to make since the next moment he found himself volunteering to do an index. He has passed this to me and I decided to add to it which inevitably delayed its publication. But it is not dead and hopefully will be published in the next couple of months. Both the Flying Lady and the RREC Bulletin have extensive indices and Praeclarvm does up to the time I edited it. This is not a criticism of the editor, someone should volunteer for the job. One of the great features of a comprehensive index is to list cars with photos in the publication, something that I am not doing for these notes. Plowing one's way through the various published tomes on the marque especially those put together in Australia, it is delightful to see one's old car in a new location or indeed a very old one.



EARLY SHADOW DAYS

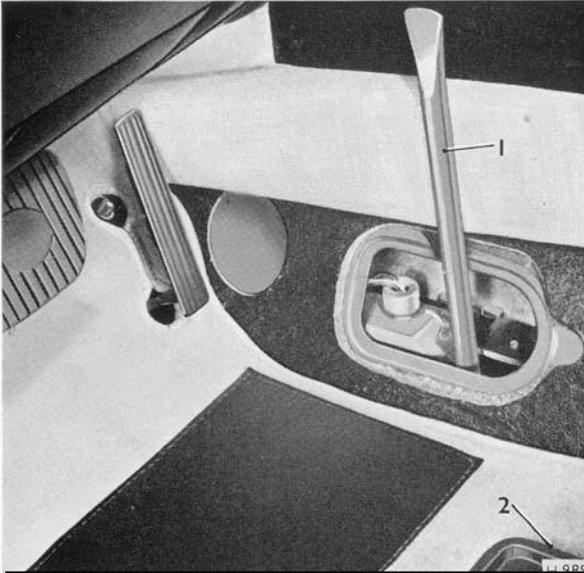
Some of my readers were not even born in 1966 when the first Shadow hit the streets. The world had finally shaken off the pall of the second world war and Korea and prosperity seemed to lay in production. The Japanese were producing better and better cars and auto manufacturers found that customers would pay for gadgetry previously unheard of. This was



The original hydraulics. Note the front ram feeds. Until about 1975 the 'rat trap' embodied a small master cylinder from a Morris Minor which is what the driver felt when he laid into the brakes. This provided the legendary but useless third braking system. The cylinder was replaced with a conical rubber contraption which gave the driver his 'feel' and was probably continued until the last car!

bad news for the designers of high end cars because a mass producer such as Ford could very quickly design and build a speed control for instance far faster than some firm producing a few thousand cars a year.

The Silver Shadow was arguably the most ambitious project ever taken on by the old Factory. They had the engine from the Silver Cloud but little else. They were thrown in at the deep end with monocoque construction, a radical hydraulic system, a complete new suspension and an electrical system that rivalled a small aircraft. And then they had to kit the body out and get all the new fangled gadgets to work. Get all this onto a new production line and you have an aspirin packet full of headaches. Despite the aura that some enthusiasts extoll, that the old Factory simply designed and it happened – infallibly. The Shadow exploded that myth for good.



One quaint feature of early cars was the installation of the get-you-home lever which was the tommy bar from the tool kit. Apparently the Factory was not too sure of the reliability of the electric gear change mechanism. In practice it was one of the more reliable bits on the car and this feature was dropped. To engage an extension of the actuator lever on the gear box the end of the bar was reduced in diameter and that same bar was still being used on the 1985 Spirits to my knowledge!

The most noticeable disasters occurred with the hydraulics with haemorrhages occurring at the most embarrassing times. A national magazine in America featured the story of an owner of a Shadow which managed to pump several litres of RR363 all over the indoor/outdoor carpet in an elegant portico of a society residence in Washington DC whilst I lived there. Yet owners persisted and so production went on. What went unreported was the factory ceasing production for weeks at a time on at least two occasions in the early days to try to iron out the worst problems.

The top problem area was the front rams. With the best of intentions, the designers no doubt eying the Citroen sytem from which they had purchased a number of patents, designed rams that had about an inch of travel, into the front spring seats. In addition they installed a very complex anti-roll valve that enabled the front rams to keep the car on the straight and level in a corner.

The leaking problem occurred because the rams seldom worked and the seals stuck to the ram shafts until one day when they were required to work they simply ripped the seals to pieces and disgorged the content of the hydraulic accumulator. As to the cross levelling on corners, I have never experienced a car with this working but well I remember the late Don Appleby bringing the first Shadow up from Melbourne and reporting that he nearly turned the car over three times on the way! This continued for about 7000 cars until it was not only ceased but all cars were modified to close off the front rams altogether. Another small problem was the application of flexible pipes from the hydraulic pumps to the accumulators these were real doozies apparently and regularly blew out. They were quickly replaced with hard steel piping. The transmission was an amazing compromise. The earlier Hydramatic used by the S series was re-designed with an extra sprag clutch, jammed into a reshaped box that allowed for the lower floor and otherwise

operated as the old 'jerkomatic' of its forebears. The GM400 with which we are all familiar came in at about car number 4500.

Another minor trouble which I experienced almost first hand was with the torque reaction arm on the differential. As you know this narrows down to a small neck where the rubber mounts are placed. Apparently the section was not quite up to the strain and odd cars would have the thing break off with startling results. I had heard of this happening to a number of cars and popped a note about it in the journal of the day. Somehow the watch it man at the factory got to hear of it and sent me a very formal letter advising that they had no knowledge of such a problem etc etc. Somewhat confused I called the then Service Manager at the Melbourne dealers and was told that it was none of my business!!! Shortly after the Managing Director of Rolls-Royce was visiting the Department of Defence where I worked and travelled in a Silver Shadow they had borrowed from York Motors. We had a pleasant exchange in Blamey Square and they set off as I walked back to my office. I had not gone far when I noticed that the car had stopped just short of the bridge over Lake Burley Griffen and the occupants were alighting and preparing to walk back. Guess what had broken!!!

So when the Shadow II emerged claiming some 2000 improvements since the first Shadow one can for once appreciate the spin!!

SOME MORE TRIVIA

Background: Most people got married in June because they took their yearly bath in May and were still smelling pretty good by June. However, they were starting to smell again, so brides carried a bouquet of flowers to hide the body odor.

Baths equaled a big tub filled with hot water. The man of the house had the privilege of the nice, clean water, then all his sons and other male inhabitants, then the women and finally the children. Last of all came the babies. By then the water was so dirty, you could actually lose someone in it. Hence the saying, "Don't throw the baby out with the bath water."

Houses had thatched roofs--thick straw, piled high, with no wood underneath. The roof was the only place for small animals to get warm, so all the pets, dogs, cats and others, including mice, rats and bugs, lived in the roof. When it rained, the roof became slippery and porous to an extent and sometimes the animals would slip from and/or fall through the roof. Hence the saying, "It's raining cats and dogs."

There was nothing to stop things from falling into the house. This posed a real problem in the bedroom where bugs and droppings could really mess up a nice, clean bed. So people found a solution by building beds with four posts to hang a sheet barricade over the bed. Hence, those beautiful four-poster beds with canopies.

The floor was earthen. Only the wealthy could afford something other than dirt for a floor, hence the saying "dirt poor." The wealthy had slate floors which would get slippery in the winter when it rained. So they spread thresh on the floor to help keep their footing. As the winter wore on, they kept adding more thresh until it would start spilling outside each time the door was opened. A solution was found by placing a piece of wood at the entryway, which became known as a "threshold."



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