

# DRIVING FORGE

THE MAGAZINE OF

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ROVER

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CLUB

#### THIS ISSUE



THE GUVNOR
STORY OF A POLICE P6



CHANGING REAR BRAKE PADS



GEARBOXES

MAINTENANCE AND SERVICE

Vol 22, Issue 1 MARCH 2014

# ROVER 35005 THE STORY OF THE FIRST P6 V8 MANUAL ...AND IT'S STILL GOING STRONG EB KXC EZEH

**NEXT EVENTS...** 

12 -13 April Practical Classics Resoration Show at the NEC

27 April Drive-it Day - events across the country. Take your P6 out!

11 May P4 Drivers Guild National. Rockingham Castle 18 May - Northern RP6C and RSR National. Bowes Museum





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#### FROM THE EDITORS

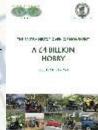


Welcome to the first issue of Driving Force for the 2014 volume. As you can see, the front cover has had a mild revamp to reflect the new year.

As an experiment, we have also printed this issue on slightly thinner paper. After the flotation of Royal Mail, there has been a marked increase in the cost of posting the magazine. Our previous courier was taking too long to make it through Royal Mail's networks. Royal Mail's pricing brackets have also changed to our disadvantage. We are aiming to keep the total weight of the magazine package (which also contains renewal forms, membership cards and event entry forms) under 100g. This keeps the postage cost about 30% cheaper saving around £600 over the course of the year. That money could be much better spent on events, advertising, regalia, and furnishing Area Organisers with proper banners, tables and equipment for use at local shows. This makes sound financial sense to us, but we would like your feedback as well. What do you think of the new magazine paper?

#### \* \* \* BREAKING NEWS \* \* \*

As we go to print, the news has just broken of the reintroduction of the rolling tax (VED) exemption scheme for classic cars, announced by the UK Government in the Spring Budget. A single year's worth of exemption was announced last year for cars built in the 1974 calendar year, but it comes as a victory for the classic car industry as a whole that the rolling scheme is now reinstated, albeit with a 40-year rolling cut-off date. The original rolling 25-year exemption scheme was frozen in 1997, holding the cut-off date at 1 January 1973 for 16 years. This reintroduction came following pressure and research conducted jointly by the Historic Vehicle Re-(HVRI) Institute and Federation of British Historic Vehicle Clubs (FBHVC), to which this Club is a proud affiliate. In their research paper The British Historical Vehicle Movement: A £4 Billion Hobby, they reported that the classic car movement in the UK is a rapidly growing industry that directly employs over 28,000 people, and contributed £4.3bn to the UK economy in 2011 alone. A copy of this report is available for download at www.fbhvc.co.uk/rese arch.



Other pressure groups, notably Practical Classics magazine, have argued that the arbitrary cut-off date of 1 January 1973 was limiting the further growth of the industry by disincentivising the restoration of post-73 cars, and damaging the commercial values (and therefore preservation) of vehicles introduced after 1973.

There is some confusion over the exact details of this scheme circulating the internet, but the Club has had sight of official HMRC documents that confirm that each calendar year of vehicle build dates automatically becomes exempt at the beginning of each *financial* year. Cars built up to 1 January 1975 become exempt on 1 April 2015 and so on. It is not yet clear whether cars will automatically become exempt on 1 April each year, or whether you will have to submit a V10 form to the DVLA to have the car's taxation class changed to 'Historic'.

We can now look forward to the Rover P6 becoming an entirely tax exempt vehicle in four years' time. This should ensure the better preservation of 2200 models, some of which (particularly TC's) are now increasingly rare.

We recently ran an article to help you identify whether you car qualified for tax exemption in 2013 based on its chassis number. We will be running similar articles every year until 2018 to help identify each year's batch of cars that should qualify for tax exemption.

\* \* \* \* \* \*

In other news, several club members with the help of former Rover employees and one notable author, have been working their way through various archives in or-

der to further develop their knowledge on early P6s. What they found adds to the history, not only of the P6, but also of other experimental and prototype cars of the period, including the V8 engine and Land/Range Rover development, Former employees of Rover have been identified and interviewed. These are people who have never been spoken to before, and many have come to light following the P6 50th event last year at Coughton Court. The information discovered, along with the interviews, will be published in the coming year in both Driving Force and Freewheel, the magazine of the Rover Sports Register.

Brian Humphreys has made a series of changes to the Area Organiser roles. We have increased the number of AO's and assigned regions based on a post code map. More details on page 16.

In this issue we are running two technical articles. This is based on your feedback telling us that you look forward to reading technical articles the most. Do please continue sending in your feedback. We love hearing from you, and it helps us deliver the best magazine possible.

Come and see us at the Practical Classics Restoration Show at the NEC on 12/13 April. This is a brand new show announced by Practical Classics last year, and we are pleased to be one of the first five clubs to be awarded a stand at the show. We will be removing a rear suspension from a car to show to the public, and swapping a steering box in a series 1 2000TC.

The events diary for the year is already filling up, and we look forward to meeting as many of you as possible over the course of the year.

The Driving Force Magazine Team Michael Allen Brian Humphreys Neil Castle Chris York Fraser Kinghorn

#### Front Cover

KXC 676H, the original manual 3500S factory prototype on a long distance proving test with Rover Test Engineer, Jim Shaw. An original photograph taken high in the Sierra Nevada in Spain, Summer 1970. Read more on this fabulous car's history on page 8.

#### Rear Cover

Area Organiser Tony Bunting's newly restored 2000 Automatic in stunning Monza red with Toledo leather.

#### MEMBERSHIP RENEWAL RATES

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Add £1 for each additional Family member that would like to have voting rights at an AGM/EGM. Pay on line at www.p6club.com or cheques paybale to "RP6C" posted to Bian Humphreys' address in the Contacts Information.

#### THE GUVNOR

LAST YEAR LEE KINGHAM COLLARED THIS LATE '76 REGIONAL CRIME SQUAD CAR: THE LAST METROPOLITAN POLICE P6.



the P6 started many years ago as a young child. My Dad, was in the car trade and in 1975 was looking for a family car. With Mum's approval he bought a 1970 Series 1 2000 TC in tobacco leaf with buckskin leather.

At the time I was 2 years old so all my formative years were influenced by Rovers, after all every 70s British film had police P6s in them tearing after crims, so if they were good enough for the Police they must be good!

I have vivid memories of getting into the car in the height of summer in shorts and receiving second degree burns to the backs of my legs - agony!! Going on holiday, breaking down and generally going eve- was for sale. Fate, surely! rywhere at a maximum of 50 mph the TC had a problem with the A few days later I visited Nick's distributor. Oh, the humiliation to be overtaken by inferior cars! However that was all going to change with the next car.

Our next car was a 1973 series 2 3500 auto in Almond with buckskin leather. It was mint! I will never forget the first drive home. Dad giving it the beans at the first set of traffic lights and me being pinned back in the seat. I was First job to decide on was what I hooked.

pine series 2 and a Caterham 7 in with 4 seats so the time had come to get a P6. I decided the spec for me was a pre-1974 3500s in a leather seats.

Like many people my interest in While visiting the in-laws in August 2013 I was on the Classic Rover Forum and spotted a thread called "The Guvnor" started by Nick Dunning. The thread starred a late P6 3500 Auto in Avocado that had started out as an unmarked met police regional crime squad car, but had been laid up since 1993. Having read the thread I was taken by the car's rarity and history and was looking forward to following the car's progress.

> The following day I went to a show, and by sheer luck bumped into a fella called Nick who happened to mention that he was a P6 specialist and that he had an ex met police car - the penny dropped and I realised that this car was the Guvnor, and more importantly the car

workshop to view the car, and a few hours later the Guvnor was mine! What had I done? I wanted It's been a fantastic project and a pre-1974 3500S in a subdued colour with ambla or leather seats, and ended up with a late 1976 3500 Auto in Avocado green with brushed nylon seats! But it was the story behind the car that had interested me the most.

wanted doing to the car, as she had been laid up for twenty years and Fast-forward to 2013. I'm turning needed recommissioning. The Gu-40. I have a garage, saved some vnor had done 206,000 miles and

money and the time is right to get a the engine had gone bang just becar. I have owned a Sunbeam Al- fore she was sold to Nick. So a good SD1 Vitesse engine was the past, but I now wanted a car sourced, the crank was balanced and new shells fitted, the SU carbs were rebuilt, the original rocker covers, inlet manifold, carb tower, subdued colour with ambla or elbows and air filter housing were repainted. The engine bay had repairs to the flitches, was stripped to bare metal and repainted satin black. The radiator was recored and uprated, a Kenlowe fan was added to complement the standard viscous fan, along with a Huco fuel pump, Luminition, and Magnecor ignition leads. Reconditioned brake calipers and brake hoses, master cylinder along with a set of new tyres were fitted. The Auto gearbox had been rebuilt by the Met workshops just before being laid up but was stripped checked and the torque converter replaced.

> A replacement fuel tank, sender and new fuel lines were also fitted. As you can imagine there were also lots of smaller jobs to get the car ready for the road.

> Other jobs to complete are a respray in Avocado and rechrome of the bright work. With a bit of luck the Guvnor will be around for another 38 years!

> driving the Guvnor is like going back in time to my childhood.



#### THE GUVNOR'S SERVICE RECORD

While all this work was going on I during her service, however she started to do some research on the Guvnor. The last owner worked for the Metropolitan Police in their Northolt Garage. When the car came up for sale in 1980, they bought it from the Police auctions with around 40k miles on the clock. She was then used daily until 1993 where she was laid up with 206k miles.

The Guvnor was built in December 1976 to police specification, but with a few unusual extras for a police car, namely black vinyl roof, Denovo tyres, tinted windows and power steering.

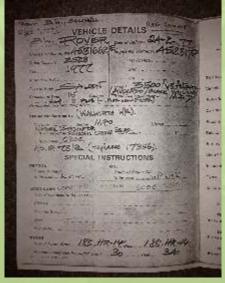
She was transported to the Met in February 1977 and believed to be the last P6 delivered to the Met. Nick looked at the factory records and the Guvnor was delivered with a marked area car on the same day. These were the last two cars supplied to the Met, but which car came off the lorry last is anyone's guess. What is certain is that she's the last unmarked P6 delivered to the Met. The car was then stored until February 1978.

Some details were gained from the last owner, some from a Police radio specialist with a contact in Met fleet services, and the rest from the paperwork which came with the car.

In 1978 the Guvnor was issued to the National Coordinator Regional Crime Squad, Walworth-Brixton Garage and had the call sign MIKE (DELTA) ONE ONE. She then went to Hounslow and was based at Northolt Garage and had the call sign TANGO (DELTA) ONE ONE. At the very end of her service, she was moved to Lambeth for a short period as a spare Diplomatic and possibly Royal protection car with the call sign RANGER 4. Unfortunately there are no driver records available so it's impossible to know what the Guvnor got up to

seems to have had an interesting and at times hard life as brake pads were changed at 4000 mile intervals and the suspension at some point made contact with the tops of the inner wings! The previous owner was also led to believe that the car was used to transport the Deputy Assistant Commissioner about and travelled all over the UK on Police business.

Lee Kingham





#### POLICE EQUIPMENT

With all this history I decided to try and source all the police equipment needed to put the Guvnor back to Met spec, so with the help from members of the Police Car UK club and eBay I now have the correct kit needed and the following will be fitted over the coming months:

- Winkworth bell (I'm told there used to be a byelaw that said you could only pull someone over in Central London with the use of a bell!)
- Fiamme two tone air horns
- Storno personal radio (Used to talk to Police officers on the beat)
- Pye Westminster radio head unit in the dash with master unit in the boot (Used to talk to Scotland Yard)
- STC inter force radio VERY RARE! (Used to talk to any force in the UK when on its travel around the UK)
- And finally an aerial on the rear decker.

There were no blue lights fitted, the driver had to make do using full beam.



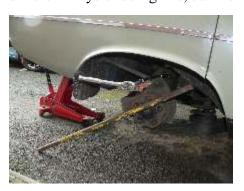


#### CHANGING REAR BRAKE PADS THE EASY WAY

P6. One glance at the workshop manual and you are presented with an intimidatingly detailed replacereference to a 'special tool'! As such, cars that have had their rear pads changed is sometimes listed as a selling feature in classified ads! In this article, we show you an alternative method to changing the rear pads that not only eliminates the need for the special tool (which is of questionable benefit to start with), but also makes the whole process much easier and less fiddly to accomplish at home.

All you have to do is to unbolt the drive shafts and slip the discs out. There is then ample room to work on the calipers. The piston cup can then easily be screwed back in by hand (or with light pressure from a pair of grips), thus doing away with the need for the special tool altogether.

- 1. Slacken the wheel nuts and raise the rear of the car so that the wheels are clear of the ground. Ideally use the rear jacking point beneath the rear bumper (as shown in Fig 1) if you do not know the integrity of the jacking points in the sills. Chock the front wheels.
- 2. Working on one side at a time, knock back the lock-tabs and slacken the four bolts holding the brake disc to the final drive flange. They are likely to be very tight. There are different ways of doing this, but the



be seen as a daunting task on the tension bar for your socket (or join hands and pull it off the drive a few together as shown) so you flange. Once again take care, it is can work outside of the wheel arch. If you leave the handbrake off and ment procedure that even makes put the car in neutral, you can usually rotate the half shaft to slacken 6. Remove the inner pad (Fig 4) by the two top bolts, then rotate it a further 180 degrees to bring the other pair to the top.

> 3. Remove all four bolts and swing the drive shaft clear of the disc



You may need to expand the DeDion tube top give sufficient clearance - simply pull the hub towards you to expand it. Be careful to keep clear of the disc, although it is unlikely to drop out at this stage (it is held by two dowels and the brake pads), if it does slip, it is heavy and you don't want it dropping onto you or anything else!

4. Working from underneath, and still taking care not to allow the

disc to fall. remove the outer brake pad by pushing it towards the disc to pull it off its dowels.

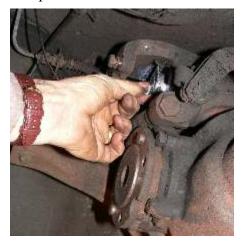


- Changing the rear brake pads can easiest method is to use a long ex- 5. Hold the disc firmly in both unlikely, but possible, that the inner pad could fallout at this stage
  - removing the 7/16" bolt holding the pad slipper (circled), and then remove the pad slipper.



There is one on each side of the pad - you need only remove one to give enough clearance to remove the pad.

7. Wind the piston back in clockwise as far as it will go. You should hear a clicking sound, which is the rachet mechanism of the pad autoadjuster winding back. Leave the tag pointing upwards - it is safe to rotate it anti-clockwise if need be to get it in the correct position. Using this method eliminates the need for the special tool.



Use pliers, fingers or whatever, but engage is not always easy. Make a easier than trying to winkle the don't apply too much force if they loop of rope around the De Dion bind because the tags will break off elbows and wind it in with a stout the workshop manual. This process quite easily. If you do break one off screwdriver, bar or suchlike. Once or find one missing (not uncommon), you can make a new one rope. from 1mm steel sheet and weld it on. This is not a problem as the "tag" is not directly under hydraulic pressure. But you will have to remove the caliper to do this, so it may be easier to source a replacement piston cup.

- 8. Reassembly is a reversal of the above process, but take the usual care to keep oil and grease off the pads and discs.
- allow the Disk/Half shaft bolts to long-winded, but it is a good sight

the bolts are in place release the



If you are used to changing pads on the vehicle. more conventional outboard brake 9. Compressing the DeDion tube to systems, this may seem a little Michael Jones

pads out using the method set out in can be carried out quite quickly once you've tried it. It also makes life easier when removing the rear calipers. I can change both sides in little more than an hour using this process

I must emphasise the need to observe the sensible safety measures. Use chocks, because the the handbrake and gears are ineffective once the rear axle is airborne, and use axle stands or ramps to support



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#### THE ORIGINAL 35005

There are some incredibly interesting and historic P6's surviving today, such as Paul Smith's two FLK's, Brenda Griffin's Earls Court gold car, the surviving prototype P6B's from 1966, right the way along to Mark Gray's 1977 3500S - the last car off the line.

My introduction to one of the most historic P6's of all came in 2000 when I was first on this club's committee - The Rover P6 Drivers Club, as it was at that time.

I got a train up to New Street Station for a committee meeting, to be picked up by Rob Pinner in KXC 676H, his very aggressive looking and rorty 3500S, the first time I'd ever seen her. We went for a very quick encounter with the M6, an encounter so lively that even now I don't think I've been quicker in one of Solihull's finest. Robert apparently still has his driving licence!

KXC was, and is now, much more than just an extremely quick and powerful P6B, she's the first manual 3500S and a real factory prototype.

The P6B had been launched in April 1968, but only as an automatic with the redoubtable Borg Warner 35 as transmission. Despite Rover's best efforts, for reasons political, financial and mechanical they were unable to launch with a manual gearbox. When Chris Wilson and I spoke to ex-Rover Transmission man Peter Willmer last year he talked to us about the various failed attempts to get a manual V8 into production using a ZF gearbox – this gearbox suffered from an idle rattle which could only be eliminated with the use of specialist oils, and was eventually given up as being unwieldy. Eventually for reasons of cost, the decision was taken to proceed with a manual 3500 using a strengthened version of the 2000 gearbox with a integral oil pump.

Recent research by Andries Griede also suggests why KXC could exist as she does – Rover America had been begging Solihull to make a manual gearbox version of the NADA 3500S available to them, to be sold as a 'sports saloon' in the same way the fairly successful earlier Federal 2000 TC had been.

The automatic NADA 3500S had not been the success story that anyone had

hoped, but a manual version of the car would, in theory appeal to a different market completely. It's for possibly that reason that KXC 676H started life as, in effect, a right hand driver NADA car—when new she had side impact bars, electric windows, full NADA bumpers, Icelert and the leather transmission tunnel finisher. She looked, externally, just like a NADA 3500S.

She carries the totally unique chassis number of 70350001M – it doesn't take a genius to work this out as '1970 3500 Manual (number) 1.' Her original first engine was 43000008A – the eighth NADA V8 engine.

When registered at Solihull VRO on 29 December 1969 she was shown as being a 'Rover P6B Mk II'. Production records now held at BMIHT Gaydon show her actual date as passing through inspection as 1 January 1970.

She was one of an interesting batch of 'factory' cars registered at that time. KXC 675H, a Brigade Red 2000 automatic was used in a lot of promotional photographs looking like a full Series II car, including brochure shots. According to Rover Engineer Lyn Thomas she was written off spectacularly when still a very new car.

KXC 677H is shown as a 2000 TC, of which little is known, but again could well have been a car in Series II trim. And KXC 678H was, interestingly, an early 1964 2000 (chassis number 281) which was seemingly not finally road

registered by the company until 30 December 1969.

KXC 676H - the subject of this article - was a prototype and thus used as a work-horse. In Summer 1970 she went on a long distance proving jaunt to Southern Spain Rover Brake Project Engineer Jim Shaw took his trusty camera with him,



so here we have, courtesy of Jim Shaw Jnr., photographs of the her high in the Sierra Nevada. From the photos it's obvious that KXC's original interior colour was black – she's now buckskin. When Robert got the car she had a later black cloth interior. Rob ripped that out and put in the Buckskin leather she now has.

Rover kept this car for over five years and used the car for various development modifications, including probably the LT77 (SD1) 5-speed gearbox, which, according to experts is far better engineered on KXC than home conversions. She was also obviously used to test engines, and to make it easier to swap one out in a hurry the front panel was made removable (something that would cause minor problems later).



The engine in the car now was one of years later Albert finally decided the two that Albert had – in the car originally was EXP 154, seemingly an older engine with a rope seal. EXP 154 D, the engine now in the car, has the neoprene seal.

On 16 July 1975, according to the factory sale book, the car was sold to a Rover Engineer Doug De Launte, or 'Mr. De Launte, Hardy Road, Coventry' as the factory sales book state.

Doug kept the car for about 10 years, by which time it was really quite derelict. When he passed away the family sold the car as spares to 'Ginger' Bill Mountford (another Rover engineer), he took the majority of the American spec parts off, like the door bars and electric windows, and put them on his own Rover.

The remains were then sold to a Rover Engine Fitter, Albert Cartwright (later an Engine Foreman in the BL days). Albert had fond memories of working on the car while he was involved in engineering. He resurrected the car by welding the sills, replacing the missing bodywork and painting it 'Volvo' orange; similar to Paprika, it was the only colour he thought the looked 'right' in!



After using the car as a daily driver for five years, including towing a power boat down to the coast, Albert put the car away and took advantage of the employees car scheme at Austin Rover.

It was around this time (1989-1990) that Rob Pinner first got in touch with Albert. He had just bought his first car, a 1973 Rover 2000 with a dead engine, and Rob's father, also an ex-Rover engineer, phoned around his contacts to see if anyone had a spare one.

As luck would have it Albert had quite a cache of spares and with his help Rob got the 2000 back on the road.

Rob kept in fairly regular contact with Albert, and whenever he needed a part, he found Albert usually had it. Seven time had come to get rid of the 3500S, as his garage was getting quite dilapidated. So KXC was offered to Rob on the understanding that he would get it road-

It only took about three weeks to get the car back on the road, it needed a small patch in the footwell and the clutch and brake hydraulics sorting out. Rob started using the car as a daily driver covering about 30,000 miles per year, always keeping it well maintained and carried out a rolling restoration.

Eventually Rob bought another car as a daily driver and with less pressure on time, got KXC looking really rather nice, it was then used for high days and holidays for a couple of years.

This proved rather boring so, together with George Lovegrove, Rob started entering some road rally events, this took quite a toll on the car and eventually a lot of the structural metal needed replacing. With a young family, Robert found time to tear around the country becoming increasingly difficult and with the exception of a few club events and trips to the MOT, the car was laid up. Eventually, in 2009 as a result of a pending divorce, he had to sell the car on.

Fortunately the new owner, James Esdaile, who lives in South West London, was up to the task and responsibility for what he had just purchased.

KXC has had a full bodywork job by the redoubtable M.H. Annable and Son in Derby, and she looks as good now as she

did when she did the high attitude testing in the Sierra Nevada in 1970. The engine is very sweet and boasts a very smooth and sneaky Piper Cam, meaning the power comes on gently, but eventually viciously over circa 3000 rpm.

We've had her as a distinguished guest at the workshop a few times recently, and vou're never more aware vou're driving a piece of Rover history than you are behind the wheel of KXC. She still has the NADA style leather gearbox finisher and the lights for the Icelert.

In keeping with the over half a million miles KXC has covered in her long lifetime, James does use the car for the purpose it was built for, and continues to clock up the miles with style, last year a family holiday to northern England was child's play for the old workhorse.

James's worst problem recently was the issue of the bonnet popping up onto the



safety catch at random, at speed. This was found to be the removeable slam panel from all those engine swaps moving about, it has been outwardly invisibly secured now!

Words by Nick Dunning Thanks to Rob Pinner, James Esdaile, Chris Wilson and Andries Griede.











# CLASSICS ON THE GR. CROXLEY GREEN, WATFORD 15 SEPTEMB

A combination of Croxley Green's familiar comeand-go-as-you-like format and the added draw of a steam fair meant there was no shortage of classics at this long-running Hertfordshire event.

at this long-running Hertfordshire event.

While the weather might not have been in favour of organisers Watford and District Classic Vehicle Club, scores of classics rolled into the



Uxbridge enthuslast Ken Nichols got his 1967 Triumph Vitesse Mk1 on the road two years ago after a decade-long restoration

# CARTERS STEAM FAIR AND CROXLEY GREEN

The P6ers from the Case is Altered last car show outing of 2013 was to to Carters Steam Fair and Classic Car Show at Croxley Green, Hertfordshire. A good day was had by all despite the rain showers! Some of us avoided the heavier rain by walking to the local pub for a splendid roast lunch. Classic Car weekly were there and there next publication featured Tony Bunting's P6 back from its respray by Annable and son in Derby (rear cover photograph).

And so did ye P6ers come to Pinner in ye county of London at a time of great merry making and did join in ye revels at ye Olde Case is Altered for ye 2013 Christmasse Feaste. Head of ye long table was David Oxford ye well known Club member and P6 expert. A merry time was had by all.

Evidence of the age of the Case is Altered pub is found in its wooden oak beams made from ships timbers from the reign of Elizabeth 1.













Rickmansworth venue, including many who wanted to join in the fun at the mid-week Classics On The Green event last month (CCW, 14 August) but couldn't make it due to work commitments.

The event helped raise funds for Leukaemia. Research, Breast Cancer, Diabetes UK and MENCAP Children. DAVID SIMISTER



Tony Bunting, from Pinner, has restored his 1972 Rover 2000 twice in the 30 years he's owned it

#### TECHNICAL ARTICLE

#### LOOKING AFTER YOUR GEARBOX

For the duration of its production life, the P6 was available with two basic transmission options. A Rover-designed 4-speed all-synchromesh manual gearbox available in various configurations in the 2000 and 2200 models, and in a strengthened and revised form in all 3500S models. And a family of Borg Warner automatic transmissions, which were bought-in from the American supplier and offered as an optional on four-cylinder models from 1966, and as standard fitment to all 3500 models. n this article we show you how to look after your gearbox in situ to help prolong its life, as well as the common pitfalls to look out for.



#### The P6 manual gearbox is a unique gearbox that was designed specifically for the 2000 in the early 1960s. It uses silent-running helical-cut gear sets with quality baulk-ring synchromesh on all forward gears. There are 3 forward gear sets - fourth gear is achieved by locking the input shaft to the output shaft, thereby bypassing the gear clusters to create a 1:1 transmission ratio. Selection is by remote with a short gear lever, and it has a lightweight aluminium housing in the interests of saving weight. The clutch is a sporting Borg & Beck diaphragm with hydraulically controlled release.

If kept in good order, P6 manual gearboxes are capable of covering large distances without significant problems. However, there are some issues to watch out for.

2000 Series 1	2000 Series 2 2200		3500S
SC - 400, 401	SC - 436	SC - 471	All-481, 485
TC - 415, 416	TC - 446, 450	TC - 491	

Using the table above, look at the first three digits of your engine number to identify which of the four main variations of the gearbox you have. All gearboxes have the same internal ratios, but there were various changes to materials, bearings and selector mechanisms throughout production. Note that series 1 drivetrains were fitted to series 2 bodies until late 1971 to use up stock, so your engine number is the best identifier for a J-reg 2000 short of slipping underneath to inspect it.

Series 1 gearboxes have the gear lever remote selector bolted to the transmission tunnel of the body, with the selector shaft reaching through the empty space between

#### MANUAL GEARBOXES

the tunnel and gearbox. Series 2, 2200 and 3500S gearboxes all have a remote selector carrier casting bolted to the gearbox which positions the gear lever beneath the hole in the tunnel.

This has a dramatic effect on the 'feel' of the gearbox. Series 1 setups are notoriously 'notchy' and it can be difficult to select (or even find!) the right gear. Later setups have a much more positive movement, but there can be quite a lot of 'slop' in the gear lever, which can rattle annoyingly at speed. gearboxes have shot-peened (strengthened) gear clusters and selectors, and an internal oil pump to pressure lubricate the bearings. 2200 gearboxes have the 3500S's clusters and selectors in the standard Series 2 2000 housing without the pressure lubrication. 2200 gearboxes are therefore a reasonable upgrade for earlier cars, but be aware that stocks of new 3500S clusters and selectors are now virtually unobtainable making the cost of rebuilding a 3500S or 2200 gearbox prohibitively expensive, if not impossible.

#### Start with an oil change

Drive the car until the gearbox oil is hot say 15 mins. Drain the oil and let it run out for at least half an hour (you will get a further half pint out in dribbles if you leave it for the full time). Replace the copper washer and put the plug back in. If you find a selector dog tooth in the drain plug, don't panic. This probably happened a long time ago when somebody crashed the gears. If the gearbox is still operational, you should be fine provided you don't rush gear changes, and it is better that this tooth is removed from the gearbox rather than left rattling around in the bottom. Nonetheless, you should think about a transmission rebuild in the future if you intend to drive the car hard.

Refill the gearbox up to the filler neck with a good quality 20w50 mineral oil (filler behind grommet on passenger side transmission tunnel). DO NOT use anything else as the yellow metals in the gearbox can be damaged by unsuitable gear oils. If you find a pink/red gear oil in it, replace it immediately with fresh mineral oil, and ideally replace that again after a few hundred miles to ensure a complete flush. For high mileage and Series 1 'boxes, we would recommend Millers 20w50

Mini Classic oil, which is specifically formulated for engines with a gearbox in sump (BMC A-series, E-Series, etc) to protect bearings and gear clusters in more extreme environments.

Series 1 gearboxes went through a series of almost annual production changes from launch to 1967, when the specification finally settled down. The principle changes were to the bearing designs. As such, early gearboxes may be noisier or more badly worn than later examples. If you plan to replace your gearbox, we would recommend sourcing a late Series 1 gearbox as a minimum, but preferably a Series 2 or 2200 gearbox, which offer a series of advantages (although modification to the trans tunnel is necessary to fit to a Series 1). It is not advisable to fit a 3500S gearbox to a four-cylinder due to the additional work required.

#### Bleeding the clutch the easy way

The clutch release bearing is lubricated by a splash-fed channel from the gearbox. If left for a long period standing, the oil can drain back from this channel. This is the root of the common problem selecting gear (particularly reverse) when the gearbox is cold. Don't worry, the oil will soon replenish itself in the channel. As such, it is normal to see a small oil drip from the rear of the bellhousing, usually collecting on the drain plug. If the selection does not improve as the gearbox warms up, the clutch push-rod may be incorrectly adjusted, or the release bearing may be suspect.

Bleeding the clutch can be a arduous task. By far the easiest method is to fit a flexible hydraulic pipe and unbolt the slave cylinder from the bell housing. Raise it above the level of the master and open the bleed nipple. Compress the slave by pushing the push-rod fully home and hold it there with string or a cable tie. Offer the slave back up to the bell housing. You will probably now find that the push-rod is too short to reach the release arm. Measure the approximate additional distance you need. Remove the push-rod and extend it on the thread. You will now need to open the bleed nipple to push the piston home again. Repeat until the push-rod is about 1/4" too short to reach the release arm when it is pulled fully back (towards the front of the car).

Now bring the slave back up above the level of the master and fill the master with DOT4 brake fluid. Get an assistant to apply gentle pressure to the pedal until the bleed nipple runs clear. Tighten if off and bolt the slave back up to the bell housing. As soon as you release the cable tie/string the piston will start moving out of its own accord. Use this movement to cover the additional 1/4" necessary for the push-rod to engage with the release arm. Put the pin back in and secure it with a split pin. Top up the master to the correct level and road test. You should find the pedal is much lighter with a positive movement.

#### **Drivetrain alignment**

Whilst underneath you should also check your drivetrain is correctly aligned - the small spring beneath the rear of the gearbox should be perpendicular and exactly in the middle of the gearbox. The correct process for this is outlined in the workshop manual, and covered in Driving Force last year. Contact us for a copy of this article.

#### Clutch Judder

Clutches can develop judder from persistent town driving. The recommended solution in the workshop manual is to slip the clutch at speed to brutally scorch the plates and reveal a new, fresh layer of friction material. Unless you know the integrity of your clutch, we would not recommend this practice today.

#### Gear selection mechanisms

For Series 1 gearboxes, the only way to improve gear selection is to ensure the engine/gearbox is correctly aligned in the transmission tunnel - this has a dramatic effect on where the gears fall in the gate. Beyond this, you should make sure that the spherical joint, plastic bush and clean, free from dirt and intact (replacement levers are plastic bushes are available). Grease them liberally before reassembling. You will need to remove the centre console to access the remote mech-

For later gearboxes, the above applies to the gear lever, but there are a series of bushes in the remote housing that also need inspecting. It is common for these bushes to wear and slide out of the carriers. If you can move you gear lever from side to side in either third, fourth or reverse gear, and the size of that movement is almost as large as the movement in neutral, you will need to rebush your selector shaft as a minimum.

To do this, support the car suitably and safely at the front. When underneath the car, look up into the transmission tunnel above the exhaust pipe and front joint on the prop shaft. The cast alloy housing with the two ribs is

the remote housing. You will probably be able to see two nylon bushes floating on the selector shaft.



These have a split in them so they can be removed in situ. Prise them off the shaft with your fingers. When new, these bushes had locating shoulders on them to hold them in position, but as this has worn, the bush has slid out. You can refit your existing ones easily by cleaning them up and carefully putting epoxy glue or similar on the outside. Take great care and be sparing with this - you do not want to bind you gear selector shaft to the housing!

'acorn' on the bottom of the gear lever are Reinsert the bushes over the shaft and slot them home into the carriers. Check the gearbox selects all gears and leave it in reverse for a few minutes (this gear places more lateral pressure on the selector shaft than the others helping the glue to bond under pressure).



Alternatively, you can buy new selector bushes from some suppliers. These will still have the locating shoulder on them so will not need to be glued in place. If you are removing the gearbox entirely, or rebuilding a spare one, some P6 companies are machining new phosphor bronze bushes and turning down the shafts for a pinsharp gear change.

#### Gear levers

There were a variety of different gear levers available during the production life of the car - short, medium and long gear levers for Series 1, Series 2 and post-1973 cars respectively (give or take). All are interchangeable, although the material of the 'acorn' at the bottom of the lever differed. Early cars had a metal acorn that offers a very crisp change but can rattle. Later acorns were a PTFE material (or similar) which can break off or disintegrate. Repairs are difficult and replacements aren't difficult to source.

Michael Allen

#### BORG WARNER AUTOMATIC GEARBOXES



Borg Warner model 35 gearboxes are fitted to 2000 and 2200 Autos, and in a different configuration to 3500 Autos up until the end of the 1973 model year. From the start of the 1974 model year in October 1973, Borg Warner 65 gearboxes are fitted to V8's. The 65 is easily identified by left hand, near side of the engine bay instead of on the right hand, off side for the 35, as well as having a rod linkage to the gear selector instead of cable.

These gearboxes have some unexpected characteristics liable to catch out the unprepared home mechanic. This article attempts to talk you through some of them. To start with, the fluid level checking procedure is stated incorrectly in several places in the Rover Factory manual and the workshop manuals. The correct level check is as set out here, drawn from the experience of experts and from the Borg Warner manuals.

having the dip stick and filler tube on the First drive the car sufficiently for the transmission fluid to be hot, say 15 minutes. Make sure the gearbox has spent time in all three forward gears and in reverse immediately prior to halting the car, and also run the selector through all gear positions immediately after bringing the car to a stand with the engine still running. This is to make sure that the torque converter and all passages in the valve block, along with the clutch servos are full of transmission fluid. They otherwise drain back into the gearbox sump and give a false reading. Do not switch the engine off. You should then dip the gearbox immediately with the engine running at idle, and top it up to the "hot" level on the dip stick.

#### **TECHNICAL ARTICLE**

The correct fluid level is crucial to gearbox behaviour, having a high or low fluid level will cause harsh, late or early changes and a harsh drive take up.

When topping up the gearbox fluid, you MUST use the correct fluid – ATF-G or Ford spec M2C-33G. Other fluids sold for modern automatics are normally Dextron based and destroy the integrity of the clutch and band friction linings. The gearbox will almost certainly fail after only a couple of thousand miles with Dextron instead of the correct fluid.

If you have reason to believe that the fluid may have been previously topped up or changed with a Dextron fluid, change the fluid for the correct specification immediately. This is likely to take at least four complete drain and change sequences to replace all of the fluid retained in the torque converter and valve block.

Taking this a little further, a high mileage 'box may well have particles of friction material suspended in the fluid. These greatly assist the clutches and bands to grip. So changing the transmission fluid may well bring on almost immediate failure. Certain symptoms might cause you to drop the gearbox sump to change or clean the fluid filter immediately within. But in that case you should take the steps outlined above to try and keep as much fluid as possible contained within the torque converter and valve block so that you lose and have to replace the minimum amount of fluid.

The smell of the fluid is the best guide to what is happening within – a burnt smell is an indication that clutch plates and brake bands are in the process of failing. In this scenario, changing the fluid is likely to accelerate the failure, so best not to, but be prepared for a transmission rebuild in the near future!

Water in the fluid indicates a failed cooling element in the cold side tank of the radiator. The first thing to do is get the radiator reconditioned with special emphasis on the transmission cooler in the cold side tank. It may then be worth doing a fluid change – a minimum of four times to get everything out of the converter – but a complete failure is still the most likely outcome.

A harsh drive take up - a clonk from the rear of the car as the gear (particularly reverse) engages - can also be due to an incorrectly set engine idle speed. The factory figure is 650rpm, but if your engine can be persuaded to idle slower than this,

anything down to 500rpm is advantageous. It will certainly help the life of the differential output drive shaft flanges – a known weak point.

The kick-down cable attached to the throttle linkage close to the carburettors is much misunderstood. It is much, much more than just a kick-down cable! The hydraulic "brain", or valve block, of the transmission relies on three inputs to determine which bands and clutches engage to give the required gear. The first is the gear selector. This very rarely requires adjustment and then only if either neutral, park or reverse are unobtainable because the lever is in the wrong place relative to the detents in the gearbox. This should be obvious. Next the valve block detects road speed through a hydraulic pump at the back of the box attached to the output shaft. Finally, the pump at the front of the gearbox feeds to the valve block a pressure that is proportional to engine revs and is modulated to give a measure of throttle position by the kick-down cable position. The kick-down cable therefore has a major influence on the gearbox behaviour under ALL conditions, not just when you want full performance. There is an intimidating series of pressure measurements specified in the workshop manual to set it up. For most purposes these can be distilled to a simple practical test of the road speed at which the box changes into third (top) gear under light throttle conditions. It should be between 40 and 45 mph – ideally 43 mph. The kick-down cable should be adjusted to achieve this.

You might find then that the car won't "kick down"! The likely cause of this is free play in the throttle linkage preventing you achieving full throttle at the carbs, such as a missing rubber bush at the bulkhead where the throttle linkage passes across the space between car and engine. These comments apply to all four-cylinder and both varieties of V8 installation.

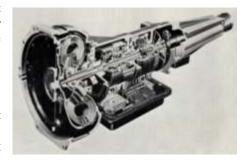
Failure of a 'box is usually down to worn out friction material, but can also be due to problems with clutch servos and front or back pumps. Oil seals are also known to leak after long periods standing, but these often reseal after a few thousand miles of regular use. Another cause of leaks is fluid draining back from the torque converter after periods standing. Again, regular use is the answer.

Another troublesome component is the start inhibitor switch on the outside of the gearbox. Quality replacements are difficult to source and the adjustable type can be awkward to set up. Symptoms of this

problem are erratic operation of the reversing lights (they use the same switch) and having to jiggle the gear selector to get the right position for the car to start.

If your gearbox appears not to be performing correctly, we would strongly recommend you signing up to the Classic Rover Forum (www.classicroverforum.net), where free advice is readily available. "Harvey P6" is a regular contributor to the forum and recognised as sufficient of an expert on these gearboxes to advise the Americans on their own gearbox! We'd recommend having an online chat to guide you through fault-finding before committing to expensive repairs.

In all fault finding, make one change only at a time, road test the car afterwards and record the change and its effect on how the car drives. With the exception of the fluid level checking procedure, the workshop manual is pretty good, and you should follow its instructions as you fault-find or repair. There are very few genuine experts out there for these boxes, so if you plan to do any work yourself, stick rigidly to the Workshop manual and Harvey's online advice. Ignore other so-called experts including specialist transmission firms — ask them how long it is since they saw a Borg Warner of this period.



Should you need to rebuild a 'box – some adjustments can be made externally to clutches and bands – the reality inside the box is nowhere near as daunting as the diagrams in the workshop manual suggest. Whether doing it yourself or employing a professional, the absolute bare minimum action is renewing all of the bands and clutch plates, renewing the seals on the servo pistons (they'll be operating in a previously unused part of the servo bore) and renewing both front and back pumps. Other repairs can be undertaken on condition.

Spares are available from J P Auto Transmissions in Weston Super Mare, 01934 853956 www.jpautos.co.uk and several of the P6 firms advertising in this magazine are also specialists in this field.

Chris York

#### PARTS NEWS

Geoff Unwinn at International/Rover Classics has a large batch of new old stock written in to let us know of several parts, included including Series 1 developments on the spares front. wheel trims, rear number plate First is the renewed availability of plinths, manual gearbox first mo-2000 TC air filters, which had be- tion shafts, and TC oil pressure come increasingly difficult to gauge senders (a very difficult source. These are now available item to find). again thanks to a bespoke order by Geoff – part no 601549 / GFE1013.

Wins Geoff has also recently purchased

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### The Classic Rover Forum

For all classic Rover enthusiasts

www.classicroverforum.com

#### A BIT OF COMMON SENSE

Whilst every effort has been made to make our technical advice and guides as helpful and informative as possible, DRIVING FORCE and its contributors cannot accept liability for any loss, damage or injury caused by reliance on any errors in, or omissions from, the information given.

The names and contact details of those listed under 'Technical Team' are club members who have demonstrated a particularly useful level of knowledge, skill or aptitude in some of the technical aspects of maintaining a P6, which may benefit other members. However, we are all volunteers, enthusiasts, amateurs. As such, advice given in writing, person or by telephone cannot be independently verified, and under no circumstances should any such advice be relied upon as the sole, principle or overriding source of guidance when undertaking a task.

#### **Duncan Gill/Nick Dunning**

Rover P6 and Farina A60 our speciality Servicing, welding, paint, MOTs High quality restoration work both large and small We buy Rover cars and parts, anything considered

> We are based Surrey/West Sussex border but will collect and deliver anywhere Landline:01483 414443 Mobile:07748 983948 e-email:farinap6@aol.com

**TECHNICAL TEAM** 

TECHNICAL HELP AND ADVICE IS JUST A PHONE CALL OR EMAIL AWAY.

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General

Rob Pinner



#### CLUB REGIONAL AREAS

Being a member of our Club gives you access to this magazine, the National Rallies and stands at National Shows organised centrally by the committee. Another major part of being a member of a club though is locally based events and a network of like minded members to provide help and support. It is in this respect that we've felt a little exposed. I know that whenever I've been to a show and offering the services of our Club to potential new members I am often asked "Do you have a meet down by me?" Meets are a difficult thing to organise to serve all our members in a Club serving one marque because our membership is very geographically spread outside of the main conurbations, although the benefits in terms of in-depth knowledge, great shows and outright friendliness outweigh much of that.

Organising the Club with Areas and Area Organisers can be a difficult business to keep organised. Assigning a member to an Area, keeping a relationship between an Area and an Organiser, catering for members moving house etc can create an administrative nightmare that would keep me out of the garage/off the road and spend too much time doing paperwork. To get around this, many car clubs would appoint an Organiser and publish their details in the Club magazine and then rely on Club members to contact them directly. It was organisationally too difficult to put the Organiser in touch with the members.

In today's electronic world the traditional pub-meet should be optional or even combined with another Rover/Classic Car meet, it is a great benefit, but these days we can also communicate with Club members by e-mail with the occasional phone call to members who are not connected to the internet, we have 88% of our membership with email addresses after all. Keeping in touch at a local level is really important. First it ensures that we enable local members to interact easily and that we are all there to help each other, and second, Club membership is likely to grow where there are active areas, the West Midlands, Manchester and London are testament to this.

I've been working on a system (and writing a bit more software) which I put before the AGM in November to improve our Areas by splitting the UK up into post codes (e.g. B for Birmingham) and grouping these together to form the new Club Areas as you can see illustrated by the coloured areas on the map. By doing this we can:

> Assign an Area Organiser to each Area, and provide and extract of

(including emails and phone cars is what it is all about. numbers)

- Advise each new member who their Area Organiser is in their welcome letter
- Change the allocation of post codes to Areas quickly and easily
- Allocate members to a new area and AO if they move house

By taking this approach, we can create a two way communication between the Areas and the Organiser. Put the members of the Area in touch with each other, provide help and support if we experience problems, and enjoy events with friends together.

In this new system, each member will be allocated to their Area (and their Area Organiser) according to their postcode as shown on the map. This allocation would be a primary or 'home' Area. There is absolutely nothing preventing any member from contacting another Area Organiser and getting involved in more than one Area. This could easily be the case where postcode boundries make it a more realistic choice to be more involved with a different or multiple areas. Publishing this information will give each member both a home Area and a choice.

We already have several Area Organisers as is seen from the Branch Meetings section of Driving force, but our job now is to recruit as many new Area Organisers as possible. Last month we announced Terry Orchard looking after the Wessex Area. This month we welcome:

Elfyn Hughes from Anglesey taking the North Wales Area

Guy Valentino from Norfolk taking the East Anglia (North and South) Areas

Tony Jenkins from Merseyside for Liverpool area

Wilf Bainbridge from Perth for Northern Scotland

Fraser Kinghorn from Castle Douglas (but also lives in Glasgow) for Southern

John Mackin from County Down for Northern Ireland

Beth Sawicki from Kidderminster for Worcestershire and Dudley

As you can see on the map the hatched areas have been allocated an Area Organiser, but there are still many Areas that need to be allocated. How about volunteering? The Area Organiser is the organ-

the Club membership to the AO iser of fun, and having enjoyment with our

So what does an Area Organiser do? It should be seen as a simple brief:

- Pub Meet is optional. It's a great idea where there are enough members in a geographical concentration, but where many members might be spread out, then meet are probably best done at shows or events. Why not join up with an existing Pub Meet for other Rover clubs in the JRC (Joint Rover Clubs)
- AOs put together a list of shows/events (or whatever the local members want to do) and email it out to the local members and ensure it gets in the magazine
- Take lots of photos for Driving Force magazine
- Look for new members!

In rearranging our Areas, we didn't want to leave out our Overseas members. Chris Wilson, our committee member and archivist is originally from New Zealand and volunteered to be the Overseas Representative with a view to enhancing our magazine exchange programme with other overseas clubs, increasing awareness of the Rover P6 Club abroad (and hopefully new members) and ensuring a good representation of overseas members cars and articles in Driving Force magazine.

For those of you with an allocated Area Organiser, you will either already have been contacted by them, or you soon will be. If you would like to volunteer as an Area Organiser, or have any ideas that will help improve our local presence further, I'd be pleased to hear from you.

Brian Humphreys

#### LATE COMMITTEE NEWS

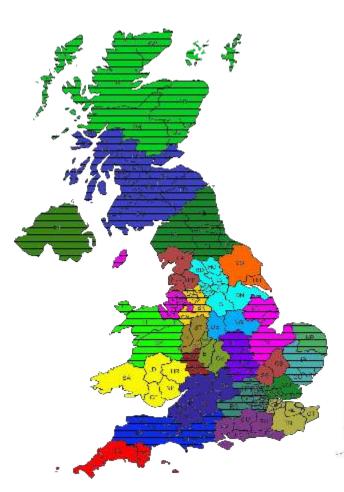
Just as we went to press, Chris York stood down as Club Secretary as he now intends to stay in Thailand for the coming year. The RP6Club would like to thank Chris for all his hard work.

The committee have approved Michael Allen as the new Rover P6 Club secretary with immediate effect. Full contact details in the committee notes on the following page.

#### REGIONAL MEEETINGS

Date	Organising Club	Branch Meeting		
Every Month on the 2nd Friday	Rover P6 Club	Manchester Branch Meeting Premier Inn Runger Lane, Wilmslow Road, Manchester Airport M90 5DL. Contact: Mike Burke 07702 193243 mad4golfing@yahoo.co.uk		
<b>Every Month on the 1st Thursday</b>	Independent	Wolverhmpton Branch Meeting		
First Tuesday of the Month	Rover P6 Club	East Midland Branch Meeting		
		The Lilacs, Isham, Between Kettering and Welllingborouh		
		Phil Copperwheat, Tel: 07766 636 652, email: philip.copperwheat@btinternet.com		
Every Month on the 3rd Tuesday		Worcestshire Branch Meeting		
		The Fruiters Arms, Uphampton Lane, Ombersley, droitwich,		
		WR9 0JW. Contact: Dixon Sheppard		
<b>Every Month on the 3rd Tuesday</b>	Rover P6 Club	West London Branch (covering Surrey, Middlesex)		
		The Goat, Shepperton, TW17 8RX		
		Contact: Dave Griffin 01252 837454		
Every month on the 1st Saturday	Rover SD1 Club	All Rover Dudley Branch Meet		
		Rover SD1 Club All Rover Branch Meet		
		The Crooked House, Gornal, DY34DA		
		Contact: Sally 077794 68027 chairman@roverSd1Club.net		
Date TBA	Rover P6 Club	Branch Meeting Newcastle and North East		
		Contact: Andy King 07903 949820 aking 68@hotmail.co.uk or Barry Gill 0191 3734806 gwendoline 50@hotmail.com		
2nd Tuesday of odd Months	Rover P6 Club	NW London, South Herts and Bucks Branch or the Péers from the Cae is Altered The Case is Altered, Pinner, HA5 2EQ 8pm sharp!		
		Contact: Tont Bunting, 07906 339917 tonyp6@jbserver.com or via tha Classic Rover Forum		

#### POST CODE AREAS





#### **EVENTS DIARY**

The Club events diary has been rapidly populated in the last few weeks and plans are being made by our Area Organisers to keep us enjoying our cars this year.

Mick Burke and his team are well advanced in the preparation for the new Practical Classics Restoration Show on 12/13 April. We have a full rear suspension being re bushed and upgraded on a series 2 along with a steering box being replaced on a series 1. We also have a stunning restored V8 to show what can be achieved. We are being ably supported by on the stand with Mark Gray of MGBD Parts and Services and Clive and Maurice Annable of MH Annable and Son. Don't forget your discounted ticket for being a

member, you can book at www.necrestorationshow.com or 0844 858 6758 and quote discount codes RS14EC for a single ticket and RS14CF for a family ticket.

Weston Park Transport Show over the Easter weekend on 20/21 April is reported to be a superb family day out. The promoters expect 1,300 vehicles to be in present, an arena with motorcycle stunt riders, birds of prey, autojumbles and funfairs for the children. Entry forms can be obtained from www.transtar-promotions.co.uk.

The Northern National on 18 May at www.p6club.com/events. Bowes Museum is promising to be anoth-

at er good event including an interesting variety of Rovers from members of the Rover Sports Register. Barry Gill is reporting in excess of 45 cars booked in already with more entries arriving daily. Mark and Angie Gray of MGBD Parts and Services are sponsoring this event, so place your orders in advance and pick them up at the show to save on postage. The entry form for this event and also the Southern National Rally on 10 August are included in this issue.

Remember that there's only space for a snapshot of events to be printed here, view the full listing on the Club's website www.p6club.com/events.

forget your discounted tick	et for being a Bowes Museum is promising to be anoth-		
Date	Location and Description		
Sat 12 Apr - Sun 13 Apr	<b>Practical Classics Restoration Show</b> . The Rover P6 Club have been allocated a stand at this new restoration show at the NEC. Further details can be obtained at http://www.necrestorationshow.com/ Don't forget the discount codes.		
Sun 20 Apr - Mon 21 Apr	The 27th Weston Park Transport Show is a major event in the West Midlands. £3.50 per vehicle and camping is available for those wishing to stay over. Entry form at www.transtar-promotions.co.uk Contact Beth Sawicki on 07900 012219.		
Sun 27 Apr	<b>Drive it Day to Mercedes-Benz World</b> Weybridge, KT13 0SL. Near M25 between junctions 10 and 11. Only a few place now remaining. Contact Nick Dunning 07748983948 for any places still available.		
Sun 11 May	Rockingham Castle - The Rover P4 Drivers Guild National Rally. Send your name, address and vehicle details (including model, year and registration number) to David Greenwell, 20 Woolthwaite Lane, Lower Cambourne, Cambridge, CB23 6BX (no SAE required). Please include a cheque for £5 made payable to "The Rover P4 Drivers' Guild". If you have any further questions please contact events@roverp4dg.org.uk or telephone 01954 710429.		
Sun 18 May	RP6C Northern National and RSR National Rally The RP6C and the RSR are joining forces once again to stage a National Rally in the North East. This is an event worth travelling for and making a weekend of it. Bowes Museum, Barnard Castle, Co Durham, DL12 8NP Contact Barry Gill 07508 543861 email: gwendoline50@hotmail.com Sponsored by MGBD Parts & Services		
Sat 24 May - Mon 26 May	Enfield Pageant of Motoring - Contact Tony Bunting tonyp6@jbserver.com 07906 339917  The NW London, south Herts and Bucks branch have a display stand at the 3 day pageant for approx. 10 P6s each day. Your P6 being on the Club's display stand gives free entry to the pageant on that day.		
Sun 25 May - Mon 26 May	The 22nd Ragley Hall Classic Car Show Ragley Hall, Alcester, Warwickshire, B49 5NJ Entry form at www.transtar-promotions.co.uk Contact Beth Sawicki on 07900 012219.		
Sun 08 Jun	Luton Festival of Transport. The NW London, south Herts and Bucks Branch has a 50 car pitch for P6s and older Rovers at this large classic car festival. Contact Tony Bunting 07906 339917 tonyp6@jbserver.com for tickets.		
Sun 15 Jun	The 25th Trentham Gardens Classic Car Show with over 1000 vehicles. Trentham Gardens, Stone Road, Trentham, North Staffordshire, ST4 8AX Entry form at www.transtar-promotions.co.uk Contact Beth Sawicki on 07900 012219.		
Fri 04 Jul - Sun 06 Jul	Le Mans Classic If anyone is interested in going to the Le Mans Classic, please contact Tony Bunting 07906 339917 tonyp6@jbserver.com		
Sat 12 Jul	Petworth Community Fete and Classic Car Show. Contact Neil Castle on 01798 344227. Also, the NW London, south Herts and Bucks branch will be driving to this show in Sussex. Join us at the Case is Altered, the Bacon Butty near Petworth before the show. Contact Tony Bunting 07906 339917 tonyp6@jbserver.com.		
Sun 20 Jul	Uxbridge Auto Show. The NW London, south Herts and Bucks Branch have a stand for 17 P6s. Contact Tony Bunting 07906 339917 tonyp6@jbserver.com.		
Fri 25 Jul - Sun 27 Jul	Silverstone Classic. Contact Tony Bunting 07906 339917 tonyp6@jbserver.com.  Book direct using the Clubs unique discount code C14111 to get 2 for 1 event tickets and 1 place in the clubs infield display area. You will need your club membership number when booking. Buy Club Earlybird tickets till 31/3, Club tickets till 31/5. You must come in your P6. Access to the infield is before 10am and after 5pm each day. If you are only coming for 1 day come on the Saturday.		
Wed 06 Aug	Classics on the Green at Croxley Green. Meet us for lunch or at the event. Contact Tony Bunting 07906 339917 tonyp6@jbserver.com.		
Sun 10 Aug	<b>The RP6C Southern National Rally</b> will be held at Blenheim Palace (off M40), Oxfordshire. Contact Dave Griffin 01252 837454 or 07778 642707		
Sun 24 Aug	<b>Buckingham Railway Centre</b> . This is the long standing Rover Show at the Buckinghamshire Railway Centre at Quainton organised by the Rover P4 Drivers Guild. Contact Tony Bunting 07906 339917 tonyp6@jbserver.com.		
Sat 13 Sep - Sun 14 Sep	Lakes Rally 2014 held at Haverthwaite Railway and Holker Hall. All Rovers welcome. Please send a cheque for £5 payable to the Rover P4 Drivers Guild to Stan Johnstone 54 Ingaway Lee Chapel South Basildon Essex SS165QR or online at www.roverp4dg.org.uk Tel:07958962751.		
Sun 14 Sep	Carters Steam Fair at Croxley Green, Hertfordshire. We meet at the Case is Altered or outside the Coach and Horses on Croxley Green and drive into the show together. Contact Tony Bunting 07906 339917 tonyp6@jbserver.com.		
Sat 01 Nov	Vintage cars in Regent Street.  Meet Alec Wallis outside Hamleys, Regent Street, London, United Kingdom at 11am.  Contact Tony Bunting 07906 339917 tonyp6@jbserver.com		

#### COMMITTEE NOTES



#### INTRODUCING **BARRY GILL**

Hi I'm Barry. I've been on the Committee for three years and it's nice to see the Club going from

and Brian Barker, we are running the Northern National Rally. With this being a joint rally with the Rover Sports Register and a new venue at Bowes Museum we are going to be very busy!

My interest in P6s started 16 years ago when I bought a 2000 TC. I was quite happy with it until I met Andy King who owned a V8 Auto and let me drive it - well that was it. Hooked! So before long I bought a members. 3500S and shortly after that bought strength to strength. I am married a V8 Auto. I sold the 2000 TC but Barry Gill to Gwen and we have two grand- a few years later bought another

children. Maddie and Summer. Be- one, series 1 2000 TC. At the motween Gwen, myself and fellow ment I have three P6s which I have committee members Andrew King taken back to bare metal... a lot of work! Luckily there was not a lot of welding required. I have recently retired from work after 45 years with the local water authority as a pipe fitter, so I'm looking forward to spending more time on the cars (don't tell Gwen!).

> This year we are all coming down to the Southern National at Blenheim Palace and looking forward to meeting many of the Southern

Rover P6 Club Committee Officers						
Chairman	Dixon Sheppard	01299 826941 dixon.sheppard@p6club.com				
Treasurer	Dave Forrester	07900 295933 dave.forrester@p6club.com	39 Lairburn Drive Clovenfords TD1 3AJ			
Membership Secretary	Brian Humphreys	01604 875116 brian.humphreys@p6club.com	25, Stourhead Drive East Hunsbury Northampton NN4 0UH			
Club Secretary	Michael Allen	07590 841686 michael.allen@p6club.com	2, Grosvenor Avenue Great Crosby Liverpool L23 0SB			
Events Secretary	C/O Michael Allen					
Editorial Team	C/O Michael Allen, Brian Humphreys					
Spares, Regalia & Advertising	Michael Allen	07590 841686 michael.allen@p6club.com	2, Grosvenor Avenue Great Crosby Liverpool L23 0SB			
Facebook	Fraser Kinghorn	07785 235079				
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James Rumney Brian Barker	Janice Sheppard Chris Wilson	Beth Sawicki Mick Burke	Andy King Barry Gill			
firstname.lastname@p6club.com						
			BASE 10			

# CLUB REGALIA

#### ROVER P6 CAR ACCESSORIES

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#### AVAILABLE DESIGNS



Samples pictures above. Available designs are:

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Ship (silver outline) Ship (gold outline)



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These original workshop manuals are widely regarded as the definitive handbooks for P6's and are vastly more detailed and accurate than the Haynes or Autobooks versions. In the Workshop Manual, every overhaul procedure is covered in detailed, step-by-step sections with a vast collection of diagrams. The Parts Catalogue contains an exploded diagram of every component in the car, showing you exactly how everything fits together.

Printed versions of each book regularly change hands for around £20 each, with pristine

examples commanding significantly more. Our digital versions are available to club members only at a substantially cheaper price.

3500/3500S Workshop Manual and Parts Catalogue on a single CD-ROM - £7.50.

Four-cylinder models to follow in due course. More details to be announced following the completion of the digitization process.

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- Standard wheels (17") BLACK or BROWN
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Or use our bespoke service and have a cover made to measure. 15 colours available in any size, in either plain or perforated 'High Grip' leather.

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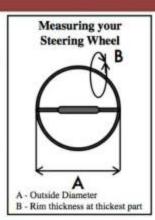
- Standard/PAS in black or brown: £47.00
- Any other colour/size: £57.00
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Please measure your steering wheel and supply dimensions A & B as shown in the diagram to ensure your cover is a perfect fit. Delivery times vary for bespoke covers, which are imported from American by our supplier.

Please call/email Michael if you have any questions.

"The Leather cover was high quality and easy to fit, surprisingly and fitted perfectly on my Rover P6 2000 steering wheel and looks great! The steering wheel had a crack and I had been reliably informed by various anoraks, that a leather cover was the best solution, as this is a common fault.

I would recommend this improvement/solution to anyone." Chris Hamilton, Croxley Green, Herts





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# THE CLASSIFIEDS

To advertise in **DRIVING FORCE** email your advert to michael.allen@p6club.com or call 07590 841 686

#### CARS FOR SALE



1973 3500 Auto Tax Exempt, built 1972.

3 previous owners. Extensive history. Genuine 68,500 miles. Power steering, electronic fuel pump, MOT until March 2014. Great car all round. Completely resprayed with all panels removed and undersealed. High quality finish in the original Almond colour. Base unit in very good condition with no rust. Photographs to confirm. Bronze leather interior in very good condition. Comes with full professional kit costing £100 to recolour leather exactly to matched Rover specification colour. Emigration forces sale. Very sad to see it leave my ownership.Reliable and more than easily keeps up with the pace and demands of modern driving. I am sure this car could be made in to a concourse example with not a lot of time and effort if the new owner wanted to do this but if not, the car stands as a very good example of a 40 year old car which will take you anywhere in style. £4,250 ONO. Call Mike. 07903 624624

#### 1972 2000 (2200 engine fitted)

First registered Jan 1972 on K reg plate, so tax exempt. Black body work. 2200 engine. Manual gearbox. Latest red V5C registration document. All welding completed by professional panel beater, hence bodywork is in sound condition. Cosmetic tidying needed to make a nice classic. Offers. Call Roger. 07968 048762



1977 Rover 2200 TC. Turmeric Yellow with black vinyl roof. Boot mounted spare wheel. Body is good with no rust or holes. Paintwork is also good. Running gear excellent, but carbs needs a clean. Car has stood for 2 years so no tax or test. Loads of history and some spares. Would prefer car to go to an enthusiast like myself. Ill health forces sale. £1000. No offers. Hartlepool, Cleveland, Teesside. Call Dave on 01429 429249



1970 3500 Estoura. Awaits enthusiastic new owner to buy for recommissioning at just £1595. This decommissioned estate was the last known Series 1 conversion undertaken by FLM Panelcraft at their West London premises. Power steering, laminated windscreens, etc. Please call Humphrey on 07762 499 216. Essex/Suffolk border.



1974 3500 Auto. "Fontaine" Mexico brown. 98000 miles. MOT June 2014, tax Aug 2014. In the last 12 months this car has not been out in the rain. Many new parts. Recored radiator and professionally recovered Webasto roof. Cosmetically good inside and out. Mechanically strong. Change of circumstances forces reluctant sale. £3750 ono. Contact Dave on 07910 882608 dave5858@talktalk.net. Bolton.

#### PARTS FOR SALE

Various. 3500 Steel front valance, rare in this condition £150. 3500 Fibreglass front valance, unused £65. Pair of front door mechanisms complete with tinted glass. £40. Centre 'Motif' badge for boot mount kit, unused. £40. Call Alan 01782 514625 or email a.gater@sky.com. Stoke on Trent.

For 3500/3500S. Short gearlever, complete assembly from knob to tip, with seat £25. Pair of Edelbrock chrome rocker covers. £40. All parts for boot spare wheel mounting except for lid reinforcement £25. Four 185/80 14 tyres, 1000 miles. Perfect condition, £150. Peter 01564 773746 West Midlands. J5 M42. pandbwillmer@blueyonder.co.uk

For Series 1 3500. 1x Lucas 'Square 8' fog light (chrome casing complete with block and nut), 1x side lens, 2x grille philips screw caps, 4x Rostyle wheel center caps, 2x 3-point fixed rear seat belts in GREY, 4x rubber buffers for bonnet sides, complete Icelert system, 2x SD1 expansion tanks with pressure cap and tube, 2x sheet metal Rocker covers, Series 1 3500 owners manual, 1970. Contact Jens by email at jens.valk@online.nl Netherlands.

Rover 2000/2200 Haynes manual. Good condition. Graham Tamplin. gdtamplin@hotmail.com

Interior. Very good set of black leather box pleat seats (no headrests) and a few other odds and ends of interior trim in buckskin. Seats stripped, fed and re-coloured black using Gliptone. £200.00 or near offer the lot. Andrew Chalk, Marlborough, Wilts. Andrew.Chalk@suttonhousingpartnership.org.uk

#### WANTED

Doors & Interior. Good doors and interior for Rover P6. Call Shaun. 07758 463846. Wolverhampton.

Series 2 trim. Exterior door handles. Rear reflector housings. NSR stainless body side strip. Must all be good condition. Call Dave. 07779 201364. Herts.

3500/3500S. A nice 'looked after' series 2 low mileage P6 V8. Unmolested with few owners. preferably garaged. The right money is waiting for the right car. Brian 07785 795111. ambigraphsigns@btconnect.com. London.

#### DISCLAIMER

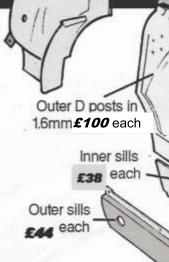
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MAGAZINE CONTRIBUTIONS If you have been to an event, done something to your car or have any other P6 news you want to share, please email your copy to michael.allen@p6club.com

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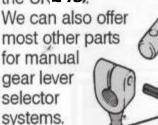
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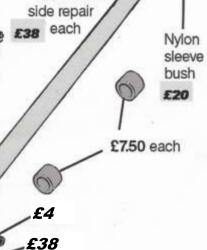


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