

Driving Mirror



1911-2011



Cocking a wheel on the Exeter Trial
Photo by John Locker

February 2012

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STARTLINE

Allen Harris

The name Morgan Marshall was once exceedingly well-known in Bristol MC circles. Through the 1930s and 40s he was the doyen amongst MG-owning members. His Imperial Motors business in Whiteladies Road, was something of a mecca for sports car drivers: he was the person to whom everyone turned for maintenance and tuning, with a particular emphasis on superchargers. But in addition, throughout those decades and beyond he was at the heart of club life, as committee member, organiser and competitor. He can be seen in some of our archive film, shovel in hand, digging foundations for the concrete parts of the track the club built on Naish Hill, which you can still see from the M5. When he sold his garage business he had to find a home for all the car parts and accessories, manuals and magazines that he'd collected over many years, and as a single man he had no problem with transferring his hoard to his home in Redland.

I never knew Morgan, but by the time I came to Bristol he was well-known in the neighbourhood as a mild eccentric. Even as a mere passer-by, I couldn't fail to notice this quite ordinary suburban semi surrounded by a 'moat' of wheels, tyres, engines, axles, steering gear, dynamos, starters, doors, windscreens, even complete cars. I've heard from some who ventured inside that every square foot was filled

with this extraordinary manifestation of a life's engagement with cars, of an obsessive enthusiasm borne of a reluctance to part with anything because it would, eventually, come in useful to someone.

When Morgan died in 1988 his executors tried to ensure that much of his hoard went to appreciative club members, friends and enthusiasts, etc., but sadly I believe that the bulk of it ended up going for scrap.

Anyone who's visited my home will probably not be surprised to hear that I have some sympathy with Morgan Marshall's philosophy. I think I have some way to go before my stash takes over to the same extent, and the recollection of his house in Chapel Green Lane does serve as a kind of warning of the dangers of excess. It's not car parts in my case, though there was a time when bits of the kit-car under construction used to find their way into the house. No these days it's mostly the fallout from a career in sound broadcasting, like a substantial CD collection and some fairly dominant monitor loudspeakers, plus the ramifications of ongoing audio-visual activity, like microphones, stands and mixing consoles, video and still cameras, tripods and lights. Added to that are several large boxes containing the Bristol Motor Club archive, and often a random selection of club trophies in transit to or from

YouTube Channel & Twitter Feed

The club now has its own YouTube channel and Twitter feed. Watch our first short film and Tweet us your comments. Follow us for the latest news.

@BristolMC

www.youtube.com/bristolmotorclub



the silversmiths. And that's just the ground floor!

So what has prompted all this? Well, when I hear someone saying they're having a clearout, I get mildly excited at the prospect of some interesting artefacts becoming available. On Christmas Eve I came home from a bit of last-minute shopping to find a large brown envelope in my letter box from John Fred Marshall. You know John: he made the front cover of *Driving Mirror* last June, pictured driving his Lotus 6 up Dyrham. John (who also happens to be Phil Rumney's cousin) lives near me, and while thinning out some of his 60-odd years of motor sport accumulations, he had found some documents he thought might be of interest to the club. How about this: the Supplementary Regs for the BMC&LCC Goram Fair Race meeting at Whitchurch Aerodrome in 1959,

complete with course map and Final Instructions to competitors; an Entry List for the Three Clubs (MGCC/Burnham-on-Sea/BristolMCLCC) Sprint (undated, probably 60s); and a December 1953 issue of *Motor Sport*, featuring photos from that year's Roy Fedden Trial, and an article by "Britain's Best All-Round Racing Driver", Ken Wharton, entitled "The Future of Grand Prix Racing". (Incidentally, Ken Wharton was a regular at Castle Combe in the 50s, and his name is inscribed on three of our trophies: the Hastings, Fedden and Alexander Duckham.)

This is not the first time John Fred has donated to our collection: last year he gave Phil some Naish/Dyrham memorabilia for our records, so many thanks to John – these are all valuable and welcome additions to the Club archive, and I hope this will serve as an encouragement to anyone else who might be contemplating "having a clearout"!

I'm delighted to report that our first AutoSolo of the year at Combe on 18 February

is already over-subscribed. At the recent Unlicensed Officials' Seminar held by the MSA at Swindon, there was much talk of events not being well-supported in the current economic climate, so this news is very encouraging, and I hope that it's a good omen for the rest of the year's events. The SRs are out now for the Great Western Sprint, also at Castle Combe, on 24 March. This high-profile event, which is also a round of the British Sprint Championship, is now firmly established on the calendar and at 3.3 miles is the longest sprint course in the UK. We have added to the prestigious nature of the

event by engaging TSL, the highly professional timekeepers who undertake the time-keeping for race meetings at Combe. It's costing the event quite a lot more, but we hope that the added-value they bring will more than justify the extra few pounds on the entry fee.

If you've ever seen the comprehensive multi-page booklet they produce for other events, reporting every time that is recorded in the day for every car, you will understand what I'm on about.

Finally, we end this month in fine style with our family Awards Presentation on Sunday 26 February at The Ship, Alveston. Dave Greenslade's revised format for this informal occasion proved to be a great success last year, so we're not changing a thing: gather from noon for a relaxed, affordable carvery lunch, moving seamlessly into the presentation itself at around 2.30pm. We have a large room reserved, with several large round tables, perfect for sharing with family and friends. It's a great way to celebrate the year's events and to congratulate fellow members on their achievements. Please make a note to keep the date free so you can be there.



A handwritten signature in black ink that reads "Allen". The signature is written in a cursive style with a long, sweeping underline.

Exeter Trial

Those who attended our Classic Trials evening at the November 2011 club night probably now have a greater understanding of the sport, with rumours that one or two might be tempted to have a go! As such, I thought there might be a bit more interest in our exploits on the 2012 Exeter Trial.

The difficulty in writing reports on Classic Trials is finding something of interest to write about other than describing the sections and who did what and where. Events these days are usually well run and incident free, so there is little else to say. Well...the 2012 Exeter was certainly well run, but some of you may know, it was not without drama.

Action aplenty on the sections
Photo by John Locker



To start from the beginning (well Haynes Motor Museum actually), despite the disruption caused by the building work, the arrangements were better than normal. The catering facilities, with far more seating, coped much better than usual, while the extra scrutineering bays sped up progress, although the checks were limited – most of the time seemed to be devoted to selling oil spill kits!

Another success on my part was actually getting one hour's sleep in the car; not something I can normally manage, which

paid dividends as the event and following socialising progressed!

The new first section, Marilyn, was a last minute replacement for Norman's Hump which had been ruined during the extensive logging activities. The key to success here lay in the first 20 yards. Whilst we were in the short queue most cars were not getting very far, which at least meant that following a short reverse, the section was clear for the next attempt. We managed to coax the Beetle through the rough bit and the rest of the climb proved straightforward, although the results showed that Marilyn wreaked havoc, with probably only one quarter of the entry clearing.

A short drive through the decimated woodland took us to Clinton, ably manned by Bristol Motor Club and Mal and Donny Allen. This proved OK without a restart, so it was on to Walterloo. On approaching the sharp right hander to turn into the lane there seemed to be a bit of congestion. Initially we thought someone was having difficulty with the tight corner, but it actually turned out to be the end of the queue for the hill, with still a quarter of a mile to go. More worryingly, there was no noise at all from the hill. After about twenty minutes we heard what sounded like two attempts, followed by yet more silence.

It wasn't long before a rather stressed Chief Official appeared to inform us that the hill had been cancelled. With more cars failing than were getting up, and failing towards the top, recovery was difficult and time consuming. The cars in the lane were to use the escape road. Those of us not having got that far were to turn around and go out the way we came in, therefore reversing the order for about 30 cars. To add to the problem, Jonathan Toulmin was changing a tyre on the X90, blocking the lane for the

cars ahead of him.

As ever when you cancel a section, there will be a queue at the next one. However the marshals at Rill Path were very efficient and fired the cars through to clear the back log. The rest of the morning, with straightforward but fun sections, passed without event and we arrived at Exeter almost on time, although some of those promoted up the order by the Waterloo incident had time to kill.

As ever with the Exeter, the real test comes after the service halt. Tillerton seemed easier than it has been in the past, with most cars, even those restarting, making it to the top.

Fingle was as enjoyable as ever. Whilst we waited for our turn, the queue had to reverse to allow a Nissan Micra to return to the foot of the hill having not progressed far from the start line. One thing that struck Rob and I, was that some of the less experienced competitors were attempting the hills with what looked like fully inflated tyres, something which probably played a major part in this incident.

After climbing Fingle and enjoying the spectacular view from the top, we circumnavigated the woodland to enter from the other side and headed towards Wooston Steep. Here classes 7 and 8 have the very steep bit while everyone else's is just steep! For Class 6 this meant doing the restart to spice it up a bit. We stopped as low as we could to get as much momentum as possible to get us over the tree roots, which seemed to work OK, but the results show a fair number of casualties here.

Next to Simms and the usual anxious half hour wait in Islington village hall, which was enlivened by an almighty crash when the lady collecting cups and plates clearly exceed the safe working load of the handles of the plastic tray she was using!!

Whilst in the queue for the hill, spectators were telling us that not much was getting to the top. During the wait, there



Mark in the queue to start a section
Photo by John Locker

were good climbs from a few cars in front of us – all received a round of applause and cheer from the huge crowd. Our cheer was not quite so loud (!), as like most others, we came to a halt on the rock slab, despite carrying as much speed as we could around the bottom corner.

There was a short wait for Tiple, with the marshals having to maintain an exit route for failures. Without a restart we elected to trickle over the worst of the rocks and maintain a steady pace. However, judging by the fact that the rocks above the restart were completely back with rubber, those stopping, and perhaps some of those not, didn't find so much grip.

We used the same method on the last section, Slippery Sam, picking our way around the more severe rocks. I was surprised to learn from a subsequent conversation with one of the marshals, that this technique is far from universal – the majority employing a far more spectacular approach!

We arrived at the Trecarn Hotel to sign off with only a failure of Simms to blot the copy book. However, on entering the

hotel, the air was full of stories that Simms had been cancelled because, shortly after our attempt, a car had rolled and the air ambulance was called to take one or both of the occupants to hospital.

The truth of the story was that Alan Spencer and John Dando in their Parsons Special had lost control whilst reversing back down and the vehicle had flipped. All emergency Services were quickly on the scene and John was taken to hospital by helicopter with a number of injuries, but, at the time of writing, is at home and recovering well. With a professional photographer capturing the incident, it was not long before the story found its way into the national press, with the Daily Mail managing to get

member, we did allow Bill and Liz Bennett to join us on the promise that Bill behaved himself! There was much banter, including winding up the BPMC Chairman's wife as to what she had let herself in for – in years gone by the occasion has certainly reflected its then sub £10 price!

Actually, the meal itself has improved over recent years, as you would expect given the increase in price, but the option of scampi when the only accompaniments were potatoes and veg seemed a little bizarre. Given the hotel is serving 400 people, it's a very good effort and the serving staff certainly seemed a lot happier than the ones they used to employ!

The awards for last year were



In action on the Cotswold
Clouds a few weeks later
Photo by Claire Tooth

most of the facts wrong in an article entitled 'Spectators watch in horror as classic race car flips over on a wet and muddy track leaving its driver trapped' - still, they do say that there is no such thing as bad publicity!

With all this disruption, the Clerk of the Course Tim Whellock had no choice but to cancel Simms from the result. The subsequent two hills were not counted for those who missed them due to the circumstances, meaning for some of the entrants, four hills were negated.

The following Club Supper was the usual very sociable affair where we joined a table of Bristol and Bristol Pegasus members for the evening, although, as a former BMC

presented, while Clerk of the Course summarised the incident on Simms and thanked everyone for their cooperation in what has been a long and difficult event. After the formalities, most returned to the bar for more drinking and story telling.

As ever, many thanks to the organisers, officials and marshals for making it all possible. Alan has also asked, on behalf of John and himself, to pass on their thanks and appreciation to all the marshals, spectators, emergency service personnel and fellow competitors who helped out at Simms.

Mark Tooth

Classico Italiano

There it was looking straight back at me in all its retro-styled glory, from the distinctive period light blue paintwork through to the chrome toggle switches adorning its stylish and curvy dashboard. I'd been looking for an Italian classic for some time, with aspirations to own cars like the now seemingly rare Alfa 75 V6, stunningly beautiful early 70's Alfa GTV, or even something more exotic again. But for many reasons I wasn't getting any closer to fulfilling my dream until five years ago, when out shopping for something else entirely, I did.

My not so insignificant investment at the time, which although brand new harked back to a bygone era, looked absolutely fantastic. Important, because as with any self-indulgent purchase; function is only really half the story with the other half being all about form. This was, at the end of the day, something to enjoy looking at each morning, let alone benefiting from the sole purpose for which it was designed. Yes just spending time with it was akin to an obsessive art collector surrounding themselves in expensive originals, with pleasure able to be taken on many levels.

I was hooked and although better judgement would advise that this was something best left for weekend use only, I, of course, ignored that and used it every day solidly for two years. Until of course the inevitable happened when retro styling met with retro reliability and exactly one month after the manufacturer's warranty expired, it went bang in a big and glorious way. Italian electrics were never the best and judging by the acrid smell and blown fuses the story here was a very familiar one. Sadly its form now exceeded its function and for the next two years it would simply gather dust as an expensive ornament, pure art to me, but just in the way for others living in the household.

This continued to be the case until one day I got what I think could best be described as a wake-up call, when the 'it's in the way' comments were replaced with the ultimate threat, 'fix it or it goes'. Given the serious nature of this ultimatum I immediately pointed Google to sourcing some parts which was incredibly easy to do, as the main importer could basically supply the whole thing in kit form. If I'd known that and ignored the extortionate virtual 'open chequebook' quotation I received when it first went wrong, I could have sorted things myself 24 months earlier. Still live and learn after all this was now going to mean a return to service of my favourite Classico Italiano, better still with parts so plentiful and available at reasonable cost I could also replace other items, such as the failed temperate gauge at the same time.

Two years on again and today the story remains the same as for many classics from this part of the world. Its timeless design is as enticing as ever, with details such as the chrome switches just as appealing. Then there are the mechanical bits which appear to be as strong as they were when new, with the only sign of caution a few spots of rust serving as a reminder that the next refresh may be a little more involved than the last one. This I'm managing as best I can by restricting its use, arguably as it always should have been, to weekends only. Still the one thing I love the most about this particular purchase more than anything else is that after spending time admiring it at close quarters, I walk away each and every time carrying what I'll argue is one of the best cappuccinos ever.



Matt Nichols

K-Series Reborn

Since about October 2010 I've been working on a little project for my Lotus Elise. The project finally came to a close in November. This is a little account of the project including some of the fun, challenges and experiences I had along the way.

The Start

They say boredom is a very dangerous thing, add owning a Lotus to the mix and you have a recipe for disaster. Ok in my case no so much a disaster but a stupid thought, following by another stupid idea and finally one more.



So the story begins with an innocent post on our Lotus forum of a Rover VVC engine for sale on PistonHeads, the same that is fitted to the series I Elise. At the time it was up for £350. Cheap I thought but I resisted the temptation to purchase. One reason being I didn't really need another engine as when I bought my current Elise IIS it already had a Dave Andrews K06a kit fitted and ran like a dream....but the little voice in the back of my head was saying that it would be good to have a "spare".

After forgetting about the advert on PistonHeads for a good 24 hours I foolishly checked again....it was down to £250....cue "will power" flying out of the window at a great rate of knots and fast forward to me travelling home with a VVC K series in the boot of my car. So that was stupid thought number one.

After a couple of days of having a spare engine sat in the shed foolish thought two started to form, which was building a nice reliable (in K series terms) 200bhp engine, similar spec to the one I used to have in my old Sport160. Well I thought about it and thought about it some more....you know the more you think about something the more sense it seems to make (and these thoughts weren't helped by thinking about them over a beer or two).

So that was the plan A, a nice 200bhp engine for my little Elise. Well that was great until I was chatting my mate at Greg who owns Hangar III a Lotus specialist near Ipswich (you can tell my stupid-idea-meter is about to go off the charts now!) and he mentioned that he was designing a new super charger kit for the K series, loosely based on the old Turbo Technics system of which he had bought the patent rights to, and asked if I'd be interested in being a test mule.....do bears shit in the wood?

Plan B

I'd not built a K series before with most of my experience from building the Hayabusa engine in my old Radical, so I thought this could be a laugh (cue hind-sight). The idea is I build a decent platform for supercharging and which will produce a reliable car that I can use and not worry about blowing up more than any other tuned engine.

So here she is, one EU2 Rover K

series VVC engine, its looks a bit tatty around the edges but everything is there, I even got a log book with the full service history. Although this doesn't count for that much as you'll see later.

A few hours with a large hammer and the K-Series is now lying in its various component parts. Its amazing how many sections of engine there are in the K series, and its also so light and compact which reminds me a lot of the bike engines.

The Strip Down

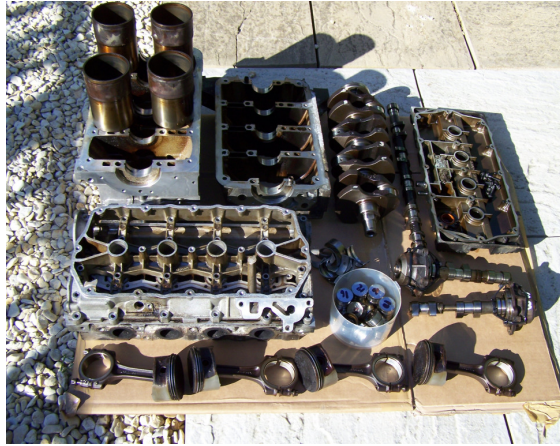
The first challenge was removing the VVC (aka Voodoo Valve Control) mechanisms from the cam carrier. The workshop manual is full of warnings about these mechanisms and how you shouldn't separate the cam from main mechanism. With some carefully placed cable ties I was able to lock it all up and remove them from the cam carrier *phew*

Once everything was stripped down I did notice some scoring on one of the inlet cam bearings, looks like some rubbish has got into the oil and been trapped here, most likely from a head gasket failure in the past. It's not that great to look at but it could be worse and with a bit of fettling I think it'll be ok.

Once the head was stripped I took it up to Roger Fabry of Sabre Heads, the same chap that did my Hayabusa head, so he could give me an appraisal of the head and what work needs doing on it. The VVC head already has large valves and big intake/exhaust tracks compared to the standard K series head so the majority of the work will be in getting the head up to scratch and fixing any issues with it.

One of the biggest tools I used in this job was eBay, it is amazing the stuff you can find on that site and these days the retailers take it as seriously as they would their normal shop websites so items are despatched quickly and, more importantly,

correctly. One of the first purchases was a set of proper OEM liners for the engine. These are like rocking horse poop these days, lots of Chinese copies going around which are probably fine in a normal K but I wanted the proper German made items.



Along with taking the head up to Rog I also brought the engine block, this again was for him to sanity check for me and ensure all was well. As I mentioned the K is new to me and as we all know its a sensitive design so has to be right.

Oh, that's not right!

There is a lot of speak about liner heights and where they should be on the K series, the theory is that you must have at least 4 thou liner protrusion from the block. Well that might have been the norm with the old style head gaskets but with the introduction MLS head gaskets from Land Rover and more lately the Chinese this isn't as important as it once was. In fact the general consensus is so as long as the liner isn't below the deck level it'll be good. All was going ok, the new liners were put into the old block and Rog set about measuring them. Of course in my case two of the liners were below the deck level so he would have to machine the block to bring them back up. That wasn't a problem but what he found

BMC Top Trumps



Renault Megane RS250 (The Flying Banana)

| | |
|-----------------|----------------|
| Capacity | 1998 cc |
| Max. Power | 282 bhp |
| Max. Torque | 310 lb-ft |
| Power to Weight | 203 bhp/tonne |
| Top Speed | 155 mph |
| 0-60 | 6.0 seconds |
| Seats | 4.5 |
| Doors | 3 |
| Boot Space | 4 medium cases |
| Best Result | Class Win |

BMC Top Trumps



Mercedes C230 (DymlyUberPanzerwagon)

| | |
|-----------------|-----------------|
| Capacity | 2300 cc |
| Max. Power | 150 bhp |
| Max. Torque | 155 lb-ft |
| Power to Weight | 101 bhp/tonne |
| Top Speed | 126 mph |
| 0-60 | 9.6 seconds |
| Seats | 5 |
| Doors | 4 |
| Boot Space | 2 bodies |
| Best Result | Dorset and home |

BMC Top Trumps



Suzuki Baleno GLX Wagon (The Snotter)

| | |
|-----------------|--------------------------|
| Capacity | 1840 cc |
| Max. Power | 119 bhp (once) |
| Max. Torque | 112 lb-ft |
| Power to Weight | 109 bhp/tonne |
| Top Speed | 118 mph (allegedly) |
| 0-60 | 9.9 seconds |
| Seats | 5 |
| Doors | 5 |
| Boot Space | Contents of a small flat |
| Best Result | Starting on a frosty day |

next might have been. He noticed that one of the liners wasn't sealing properly into the block, on closer inspection it was apparent the shoulder that the liner sits on had a low spot which was most likely the reason for the engine suffering a head gasket failure in the past...which of course had nothing to do with the head gasket - probably.

This is the reason I take it to the experts as I would have never noticed that one. Not a major issue but more expense. Rog had a local company that he used for the technical machining work and the block was soon heading off in their direction to get all the liner seats re-cut.

Next time - head woes and the bottom end gets some attention (oo-er!)

Rob Clarke

*Cut out the Top Trumps to play.
Send in your specs and a photo.
andy@andylaurence.co.uk*

2012 Calendar

| DATE | EVENT | CHAMPIONSHIPS/VENUE |
|--------------|---|----------------------|
| 18 February | Castle Combe AutoSolo | CMSGCC/BTRDA |
| 26 February | AWARDS PRESENTATION | The Ship at Alveston |
| 06 March | Informal Club Night | Colstons Pavilion |
| 17 March | MotorAid Charity AutoSolo | Castle Combe paddock |
| 24 March | Great Western Sprint, Castle Combe | BSC/ASWMC/BMC Speed |
| 03 April | Club Night - General Knowledge Quiz | Colstons Pavilion |
| 01 May | General Meeting & Club Night | Colstons Pavilion |
| 05 May | Llandow Sprint | Welsh Counties |
| 06 May | Llys-y-Fran Hillclimb | Welsh Counties |
| 27 May | Chivenor Sprint | ASWMC |
| 12 June | Informal Club Night | Colstons Pavilion |
| 23 June | Dick Mayo Castle Combe Sprint | BMC Speed / ASWMC |
| 24 June | Bristol MC Family Clubs Day | Castle Combe Circuit |
| 03 July | The "Short-Shift" Motoring Quiz | Colstons Pavilion |
| 07 August | Informal Club Night | Colstons Pavilion |
| 11 August | Bristol Pegasus Track Day | Castle Combe |
| 11 August | Castle Combe AutoSolo | CMSGCC/BTRDA |
| 01 September | 5 Clubs Hillclimb, Wiscombe | BMC Speed |
| 02 September | 5 Clubs Hillclimb, Wiscombe | BMC Speed |
| 04 September | Informal Club Night | Colstons Pavilion |
| September | MGCC Hillclimb | Wiscombe |
| 02 October | Informal Club Night | Colstons Pavilion |
| 07 October | Spirit of the 60s | Dyrham Park |
| 20 October | Supercar Saturday Charity AutoSolo | Castle Combe paddock |
| 26 October | BMC NavScatter | TBC |
| 27 October | Pegasus Sprint | Castle Combe |
| 06 November | Club Night - Motorsport Quiz | Colstons Pavilion |
| 11 November | Roy Fedden Sporting Trial | TBC |
| November | Karting Endurance Challenge | Teamsport, Avonmouth |
| November | Bristol Pegasus MC Navigational Scatter | TBC |
| 25 November | Allen Classic Trial | ASWMC |
| 04 December | EGM and Christmas Buffet | Colstons Pavilion |
| December | BPMC NavX | TBC |

2012 Fantasy F1 Championship

Oh my goodness, these cars are ugly! This year's must-have accessory is a botched nose job that Danniella Westbrook would be proud of. That aside, there's lots of new developments for this year. Gone are blown diffusers, replaced by the old periscope exhausts of 10 years ago. Gone is Rubens Barrichello, replaced by some guy called Bruno whose uncle was meant to be quite good. Also gone are both Renault drivers, replaced by returning former champion, Kimi Raikkonen, and former under-performer, Romain Grosjean, both driving a Lotus Renault now that Renault has been re-branded Lotus and Lotus have renamed themselves Caterham. Confusing? You betcha!

Toro Rosso have also fired both their young upstart drivers who seemed to be doing well and have replaced them with two younger upstart drivers with half a dozen starts between them. Here's hoping that works for them better than it seems on paper! The car has had a revamp too with a

secondary air intake above the driver's head leading to smaller sidepod air intakes, allowing them to improve on their undercut floor design. Caterham (formerly Lotus) have retained both drivers, although it's expected that Trulli will be ousted by the time they get to Melbourne, replaced by Petrov. They are also running KERS for the first time this year, so fingers crossed they can bridge the gap to the established teams, bringing the fight to Williams, Sauber and Toro Rosso who fought over the final places in Q2 last season.

HRT have brought in two drivers who have had extended absences; Pedro de la Rosa and Narain Karthikeyan. No car yet, thanks to a failed crash test. Virgin have re-branded as Marussia, a Russian car manufacturer, retaining Timo Glock and placing boyband reject, Charles Pic, alongside.

Andy Laurence

Entry forms to andy@andylaurence.co.uk

Entry forms & regulations on the website | www.bristolmc.org.uk

1st Take

the sight and sound of history

This month we are collaborating with 1st-Take of Yate to bring you their catalogue of Historic, Aviation, War and Transport DVDs. Several years ago 1st Take produced the video **Bristol Motor Sport**, with input from Chris Bigwood and Phil Rumney, which featured a lot of our archive film. More recently their cameras were at Dyrham Park to record our **Spirit of the 60s** event for DVD. But if you browse the pages of the catalogue you will also find a range of historic and nostalgic DVDs on a whole host of topics - something for everyone, especially if you have an interest in Bristol and its past.

The **Spirit Of The 60s** DVD is available to members at the special discount price of £10, including P&P. Cash, cheque or Reward Vouchers all accepted. Contact Allen Harris for more details : allen@harris-bristol.com

ONCE AGAIN, THE BRISTOL MOTOR CLUB IS PLEASED TO
ANNOUNCE THE RUNNING OF



SATURDAY 24th MARCH 2012, CASTLE COMBE CIRCUIT

The inaugural event of the 2012 sprint season at Castle Combe. As before, the event will be a round of the British Sprint Championship. It offers a single practice session per competitor of $2\frac{3}{4}$ laps, and two timed runs of $1\frac{3}{4}$ laps each. The start is in the pit lane exit: the finish at Westway second time round.

This format has proved very popular with competitors, but the key element for its success is a committed and enthusiastic team of **marshals**. We are therefore appealing to all those with an interest in sprint marshalling to **offer their services** again to ensure the continued success of the Great Western Sprint, which has now become a regular fixture in the Castle Combe calendar.

Life for marshals at the circuit is a lot more comfortable now that the **posts are covered** to give protection against poor (and good) weather. In addition, every marshal gets a voucher exchangeable for a **free lunch** in The Tavern, and there will be **prizes to be won** in the traditional marshals' draw. Bristol Motor Club members subsequently also receive a **£5 Reward Voucher**, which can be used towards subscription payments, event entry fees or branded clothing.

We have already received offers from club members and other marshals volunteering to help make this event work, but we are still short of the number needed to ensure that the event will run safely, so –

**IF YOU WOULD LIKE TO BE A MEMBER OF THE
MARSHALLING TEAM FOR THIS EVENT, PLEASE CONTACT
CHIEF MARSHAL MARK BENSTOCK NOW,**

by email: benstock.mark@yahoo.co.uk,
or by phone: mobile 07891 160891, home 01454 311712

Technogeek

Last month, we gathered the baseline aerodynamic data for the car as it stands today. This month, we'll estimate the change in the coefficient of lift from adding a diffuser and use LapSim to estimate how much of an impact that will have on the car's lap time. There are two ways to estimate the performance of a diffuser; measure the downforce with CFD or wind tunnel testing or find data from someone else's diffuser and use your most powerful processor (your brain) to make an educated guess on how that relates to your design. In the absence of knowing how to use any CAD software outside of Google Sketchup and having no CFD knowledge whatsoever, I read an SAE paper on development of a diffuser for an F3 car. Noting similar overall dimensions, I took those figures as indicative of the performance of my design.

Luckily, the paper gave me figures expressed in Newtons at 36m/s (about 80mph). Now that I know the co-efficient of lift of my car and the frontal area, I can calculate downforce in Newtons at any speed. Multiply the lift co-efficient by the speed (in metres per second) squared, then multiply by the frontal area (in square metres), then multiply by 0.60205. That's the downforce in Newtons at that speed, which I worked out at 36m/s (the speed for the diffuser data I found). Adding the downforce generated by the diffuser from the SAE paper, I now have a new figure from which I can find out the new co-efficient of lift after the diffuser has been added.

Multiply the speed (in m/s) by itself, multiply by the frontal area (in square metres), then multiply by 0.60205. Divide the new downforce figure you calculated by this figure and you'll have the coefficient of lift for the car with the new diffuser. That gives you all the information you need to make a baseline run in LapSim and a new run with

the estimated data to see what difference it makes.

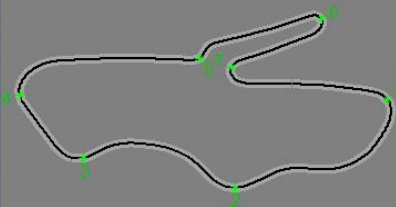
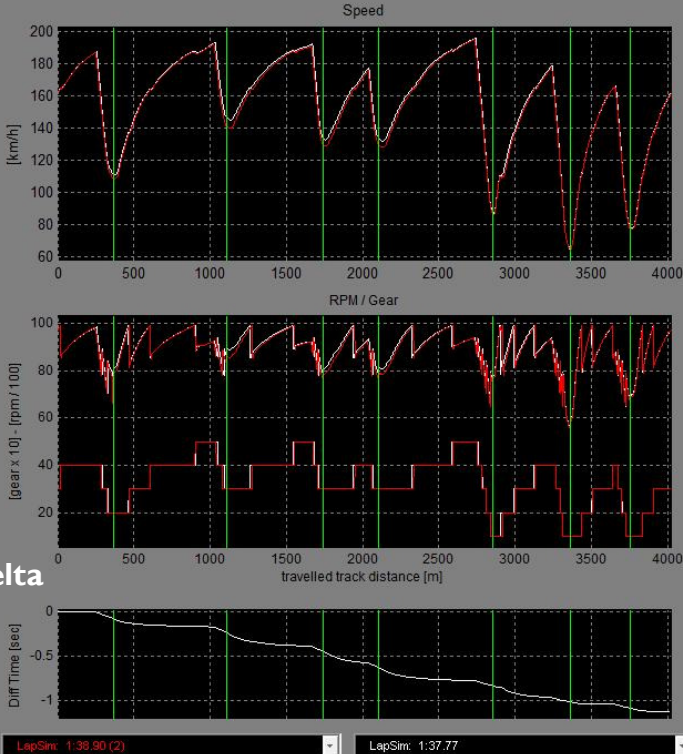
So let's get a copy of LapSim from the Bosch website (<http://www.bosch-motorsport.de/content/language2/html/3589.htm>) and install it. The car is configured by selecting the various screens from the menus at the top. Go through these screens and fill in every parameter with the closest value you have – you probably won't have all the data for every parameter. Save the car data in .MAT format so you can come back to it at another time. Now it's time to do a lap around a circuit. If you have data from your data logger of a full lap of a circuit, then you can use this to generate a circuit, but if you don't you can pick one from the list of pre-installed circuits. I used Donington Park GP.

Start a simulation and within a minute, you'll have a screen where you can playback a lap in real-time showing steering angle and a variety of other data. Most importantly, perhaps, you'll see a lap time displayed. This is an estimate of how quickly your car can currently get round the circuit. The more data you've correctly entered, the closer it will be to the real car. Getting it just right is beyond the scope of this article though!

Now it's time to flick back to the aerodynamics screen and change the co-efficient of lift to the new value you calculated earlier. Somewhat counter-intuitively, the co-efficient of lift is entered as a positive value for downforce and a negative value for lift. This confused me when I first wondered why removing weight from a high downforce car made it slower! Once the co-efficient of lift has been changed, you can re-run the simulation to see what difference this one

The deadline for submissions for the next issue of Driving Mirror is
9th March 2012

Circuit File: \Circuit_LayOut\Donington
 Set-up File: VehiclePara\ADR
 Data File: LapSim: 1:37.77



Speed, RPM, gear and lap delta
Data by Bosch LapSim
www.bosch-motorsport.de

LapSim: 1:38.90 (2) LapSim: 1:37.77

change should make to the car performance.

So, how much difference did this diffuser make to the performance of the car? First of all, we'll start by knowing that the downforce on the rear axle increased by around 57%. Let's start with the outright lap times. The original car showed a lap time of 1:38.9 around the Donington GP circuit. When the new diffuser was fitted, the times dropped by over a second to 1:37.77. This was all down to higher apex speeds. At the Old Hairpin, the car as it stands managed

1.61G lateral acceleration, yet with the new diffuser, it was able to pull 1.73G, leading to a difference of 5.2kph (3.25mph). Given that the car and driver combination has lost 15kg since last year, that means that the diffuser and weight loss is equivalent to 1.49 seconds around the Donington GP circuit. If that translates linearly to 1.15 seconds around Castle Combe, then I'm in for a good season this year!

Andy Laurence

Castle Combe AutoSolo 18th February 2012

Our first AutoSolo of the year will shortly be with us. Entries are now full, but you're welcome to come and watch the event in the paddock at Castle Combe.

www.bristolmc.org.uk



Oh b****ks, not again! Sorry about that, but January has turned out to be a rather frustrating and slightly expensive month for the DymlyUberPanzerwagon, with not one but two punctured tyres requiring replacement after the front nearside developed a “pinhole” in the sidewall (hmm...) followed literally a week later by the nearside rear being mullered by an impressively sized, self-tapping screw about twice as large as a golf tee and leading to a much longer, and far more graphic exclamation than my opening line would imply!

Thankfully, a visit last year to B & Q for decorating supplies also saw the impulsive purchase a £25 12v compressor that runs off a car’s cigarette lighter and which rescued me on both occasions so I could get to tyre man, Mike, for the new rubber. Thank goodness the original purchaser of the DymlyUberPanzerwagon had the foresight to specify the smokers pack, although, I should think it’s an easy enough task to remove the compressor’s flying-lead plug and solder on a couple of crocodile clips for direct connection onto the battery terminals.

I was pondering my response to fate’s latest amusement with me as I watched the *Spirit Of The 60s* DVD that I purchased at the last club night (narrated by our very own club Chairman and well worth the price if you

have any interest in classic cars).

Watching the convoys of glorious classics motor up and down the hill at Dyrham Park did make me wonder how I could get so worked up about something as relatively trivial as a couple of slow punctures when there are people out there, obviously quite contentedly, dealing with all the nuances and setbacks involved in running, refurbishing or completely rebuilding decades old cars?

I can only presume that the former is a natural reaction to an unplanned event with a high buggeration factor over which one has no control, whilst the latter is accepted as part of the pleasure of owning and enjoying a favoured classic vehicle? I have no doubt that creative use of the Anglo-Saxon language is alive and well used in both circumstances but I know which I prefer!

Okay, I’ve a long held, if unrequited, interest in classic cars so, what does restoring a classic car actually involve that makes it all worthwhile? I decided to delve a little deeper into the somewhat arcane world of classic car restoration and started perusing some recent issues of my favoured mainstream classic car magazines which made for fascinating reading as contributors stories, or even sagas in some instances, shed light on the lengthy, and rarely straight, road to actually achieving a finished classic car project.

Driving Mirror on iTunes

Can’t wait for the next issue of Driving Mirror? You can get it a week early by downloading it to your phone, tablet PC or computer through iTunes or from the Bristol Motor Club Podcast:
<http://bristolmc.podbean.com>



The first item to stand out is the ongoing debate about what constitutes a classic car, with opinions split between the obvious rarities and pretty much anything pre- nineteen seventies, and those who believe that there are a number of cars built even relatively recently that really should be considered as a classic – think Pug 205GTI, Cosworth Escort, Vauxhall Astra GTI etc.

Personally I agree with the inclusion of more recent vehicles as numbers of more obvious models gently dwindle, practically unnoticed, until you suddenly realise it's been a very long time since you've seen a Sierra, mk I Cavalier, or such.

The actual cars featured in the magazine articles turned out to be an eclectic mix of everything from rare early sports cars to saloons of yesteryear and even delivery vans, with the subject vehicle chosen by the restorer from a variety of factors such as, always wanted one, used to own/drive one when they were current, family heirloom, etc and must obviously be special to the person involved as some of the finished cars weren't exactly, uhm, 'sparkling' when they were new and offer all the performance and handling characteristics of an alcoholic snail on a backpacking holiday; still, to each their own!

There would appear to be three distinct routes to this classic car ownership thing with the easiest being just identifying the car of your dreams and then keeping a keen eye on the classifieds until a suitably restored example comes up for sale. Although the prices being asked sometime seem a bit salty - 25 grand plus for a perfect Triumph TR 3, 4 or 5 being typical - the price is usually considerably lower than the restoration costs, unless you happen to be particularly handy with a socket set and the relevant construction techniques of bygone days, and there are always a number of marque specialists to keep your dream machine in perfect running order.

As I'm about as much use with a bag of spanners as a Chimpanzee in a nuclear power station, this would definitely be my

Upcoming Club Nights

6th March

3rd April

The annual General Knowledge quiz.

1st May

General Meeting & club night.

preferred method of blagging something from my rather extensive wish list and, unless you're after something particularly obscure, if you've got sufficiently deep pockets your high days and holidays ride is but a phone call away.

And the choice available is far more extensive that you would ever think possible. Don't believe me? Just check out the classifieds in any Classic Car publication. Recent adverts have included such rarities as: 1911 Brasier, 1927 Humber 14/40, 1934 Alvis speed 20, Type 13 Brescia Bugatti, 1935 Aston Martin Ulster, 1935 4.5 Litre Lagonda M45 and 1936 Delahaye 135M Roadster.

Desire something a little more recent? How about an original 1962 Shelby Cobra (perfect for this year's Cobra 50th anniversary celebrations!) or a choice of street or competition special Ferrari Daytona? Don't forget the hidden costs if you're contemplating an Aston Martin DB5, you ARE going to purchase a CD of the James Bond film themes!

Within reason, and a surprisingly broad spectrum, an example of just about any car ever built is currently waiting for a new owner to carry on cherishing it once they've agreed to open wallet surgery! Now, if I could just find a considerable seven figure sum in used fivers hidden somewhere in my house by a previous occupant...

The second option is that some people are lucky enough to have major budgets available and also be in possession of a reasonable grasp of the finer points of automotive engineering, enabling them to be able to ship out major components, engines,

gearboxes, bodywork etc, to specialists for refurbishment, just leaving themselves with the initial deconstruction and final reassembly and commissioning to tackle. Which would seem to be a pretty good mix of being hands-on with your classic's restoration without having to be an expert in the numerous engineering disciplines required.

However, the third option identified as a route to owning a classic car is definitely not only the most popular but is almost certainly the one that draws my admiration.

These are the people that work with very small budgets and, one way or another, manage to restore an ancient grotter to showroom condition with seemingly nothing more than a Halfords tool set and an insane amount of optimism!

These restorations typically take a number of years to complete as the budget and life's twists and turns allow and, more often than not, involve every spare minute grafting away in a single garage. And that's for the lucky ones; I've read numerous reports of cars being restored in lock-ups with no power and even under a car port – blimey, can't be easy trying to wield a ratchet in mid-winter using a bunch of blue bananas instead of fingers!

Hats off to these brave souls though; I've lost count of the times I've read that Mr Restorer started his chosen project having little or none of the actual skills required and then set about either learning on the job or taking night school courses in welding, bodywork and suchlike at the local technical college before setting about replacing everything south of the door handles, usually commenting in the article about his 70 year old, rescued from an open field, ferrous lace hulk that "the rust was more extensive than I first realised" - yeah, no s**t Sherlock...

Finding the necessary replacement parts is also sometimes worthy of the services of said Mr Holmes and can involve months of speaking to specialists, ebaying and networking the relevant owners clubs in the search for long obsolete bits and pieces.

February 2012

But, I guess this is what the interest in classic car restoration is all about. Gently work your way through the various assemblies, restoring, replacing and upgrading as necessary and, some day, you eventually find yourself driving down the road in something special rather than the grey porridge of modern cars that clog the nations automotive arteries – can't fault it!

And then, just as I think that these car restoration stories are pretty amazing and show some real inventiveness and perseverance, I go and pick up a copy of *Aeroplane Monthly* and read about the restorations TO FLYING CONDITION of a WW2 Hawker Hurricane dragged from a forest in the Ukraine and a Spitfire pulled from a swamp in Russia! Impressed? Oh yes, and if that wasn't enough, how about new build, airworthy WW2 Messerschmitt 262 jet fighters, reverse engineered from a museum exhibit or Fock Wulf FW190s built from the original blueprints! And remember, there's no such thing as pulling over to the kerb with a major malfunction when you're actually pulling 300mph at 10,000 feet...

Be it ancient cars, aeroplanes or any other creative human endeavour, all things considered I think this is pretty impressive stuff for a species of highly evolved monkeys clinging to a rock hurtling through space!

Finally, some startling news: I've recently managed to achieve a personal best (and probably world) record on behalf of the male of the species? The pile of car magazines in my bathroom has now reached level with the rim of the washbasin - "one small stack for a man, one giant leap for mankind"!

Okay, can't see me getting a gong from Lynnette or the club for that one but I'll still be at awards day on Sunday 26th so, hopefully see you there!

Chris Dymock

BRISTOL MOTOR CLUB

2012 SUBSCRIPTION RENEWAL



| | | |
|---|---|-------------|
| Full Member | Name | |
| | Email | |
| Associate Member | Name | |
| | Email | |
| Membership Number (from full member's previous card) | | |
| Main phone | | Alternative |
| Is the address on your magazine envelope correct? | | YES NO |
| If not, please enter correct address | | |
| | | |
| Postcode | | |
| Do you wish to continue to receive <i>Driving Mirror</i> by post? | | YES NO |
| Full life membership | (Tick boxes that apply) | £160.00 |
| Full annual membership | | £16.00 |
| Associate (joint) annual membership | | £8.00 |
| Plastic windscreen badge | | £1.25 |
| TOTAL | Cash, or cheque payable to Bristol Motor Club | £ |
| | BMC Reward Vouchers, value £5 each | |
| Signed | | Date |

Please send the completed form with your payment to Mrs Jill Hemmings
Riverwood Lodge, Moored, Hambrook, BRISTOL BS16 1SP Tel: 0117 956 6045

DATA PROTECTION Information on this form will be stored on computer for the purposes of maintaining the register of members and to produce mailing lists for club publications and event regulations only. The information will not be passed to any third parties.

| | | |
|--------------|---------------|----------------------------|
| FOR CLUB USE | Date received | Membership Register No(s). |
|--------------|---------------|----------------------------|

MEMBERSHIP RENEWAL

CATEGORIES OF MEMBERSHIP

There are two membership categories: Full Member and Associate Member. Associate Members must share the same address as a Full Member, and they may only request one copy of the club magazine for that address. In all other respects the two categories enjoy identical membership status.

DURATION OF MEMBERSHIP

Membership runs from the date you join until 31st December the same year, but if you join after 30th September your membership will run to the end of the following year. Thereafter, subscription renewal is payable on 1st January each year; your membership will cease if your subscription is not paid by 31st March.

After you've been a member for at least a year, you may apply for Life Membership for a one-off fee of £160.

CLUB MAGAZINE

Driving Mirror is published promptly on the club website; please respond on the form Yes/No if you wish to continue to receive a printed copy in the post.

ONLINE RENEWAL

You may of course continue to renew your membership by sending a cheque in the post, but this year we've introduced a 2-step system for online renewal. **You can now use your Reward Vouchers** online, but to make this possible, payment can **only** be made directly by BACS transfer; this also avoids the charges that had to be added when using PayPal. Simply log on to the club website, click **Join Us!** and follow the link to the self-explanatory renewal form. To use Reward Vouchers, please enter their 4-digit serial numbers in the box provided. Calculate the balance due and go to step 2, which is to make payment using your personal online banking service. The Club's Membership account details are shown on the website, and when asked to give a reference, please give your POSTCODE AND SURNAME.

It may seem cumbersome, but it's still easier than writing a cheque and posting it with a form, and there is absolutely **no additional cost**. If you do not use Online Banking then I'm sorry, you'll have to revert to the traditional method.

If you need to update your address or phone details then please send a separate email showing the changes to membership@bristolmc.org.uk.

If you encounter any problems or have any questions please email webmaster@bristolmc.org.uk.

Social Natters

If you missed club night, then you missed a presentation from Bristol Spaceplanes about the future of space tourism. We may not all have agreed with the optimism of the presenter, but it was an interesting evening all the same.

Coming up in a couple of weeks is Awards Day at The Ship in Alveston. Lunch is served from 12:00 and we'll be starting the awards ceremony a couple of hours later. If you won anything in 2011, come and collect

your award.

April's club night is also the first quiz of the year, so make sure you join us then for what is always a great evening.

Finally, the social survey is still running. Visit the website or scan the barcode below to complete the survey, which will tell us what events you want us to start organising.

Dave, Rick & Andy

Upcoming Events

| | |
|-------------|--------------------|
| February 26 | Awards Celebration |
| March 6 | Club Night |
| April 3 | Quiz Night |

Assistance Required

Dick Mayo Weekend A sub-committee has been formed to plan this event in full. If you wish to be involved with the committee, then please get in touch with one of us (contact details on the cover).



Social Committee

Dave Greenslade

Rich Marsh

Andy Laurence

See The World's Fastest Car!

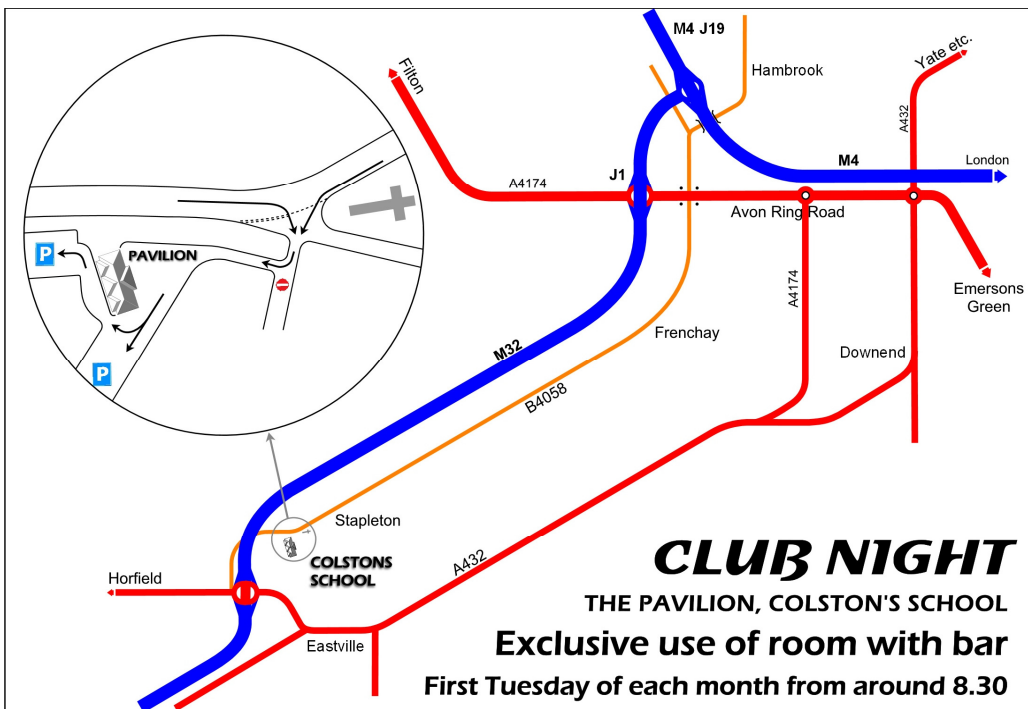
1000mph is the target and you can see the car and meet the team.

Our visit will encompass a **technical presentation** of the project to date, meet the team, a workshop visit, and a **simulator drive** (BMC record: 1033 mph, Matt Nichols).

£30 per head, including **membership** of the Bloodhound SSC 1K Supporters Club **for the length of the project** and a chance to **win a trip** to see the car run in **South Africa**.



Contact Chris Dymock on 0117 939 4265 (evenings) or estimating@intoheat.co.uk



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